SAFETY DATA SHEET

HD Life Style CONDITIONING & SHAPING CHANTILLY 200ml

SECTION1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code : BOUNCY & FOXY CHANTILLY 200ML
Trades code : 100522

1.2. Relevant identified uses of the substance or mixture and uses advised against

Cosmetic Product
Sectors of use:
Private households (= general public = consumers)[SU21], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

FARMAVITA s.r.l.
Via Garibaldi 82/84
20020 Locate Varesino (Como) Tel.:
0331833467 Fax: 0331-833827
Email: info@farmavita.it
Sito: www.farmavita.it

Persona competente responsabile della scheda di dati di sicurezza: tecnico@farmavita.it

1.4. Emergency telephone number

Centro Antiveleni Ospedale Riuniti (BG) - 800.883300 24 ore su 24

SECTION2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:
GHS02

Hazard Class and Category Code(s):
Flam. Aerosol 2

Hazard statement Code(s):
H223 - Flammable aerosol.
H229 - Pressurised container: May burst if heated.

Flammable aerosols, fire risk
The repeated inhalation of vapors can cause drowsiness and giddiness.
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 ° C.
The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
GHS02 - Warning

Hazard statement Code(s):
H223 - Flammable aerosol.
H229 - Pressurised container: May burst if heated.

Supplemental Hazard statement Code(s):
not applicable

Precautionary
statements: General
P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
Prevention
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
Storage
P410+P412 - Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.

2.3. Other hazards

The substance / mixture does NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

No information on other hazards

SECTION3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements
Petroleum gas contains less than 0,1 % w/w 1,3-butadiene (EINECS No 203-450-8)

Substance	Concentration	Classification	Index	CAS	EINECS	REACh
Petroleum gas	> 5 <= 10%	Flam. Gas 1, H220; Liq. Gas, H280	649-199-00-1	68476-40-4	200-681-4	01-2119486557-22

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product).:
Wash thoroughly with soap and running water.

Direct contact with eyes (of the pure product).:
Wash immediately and thorougly with running water for at least 10 minutes.

Ingestion:
Not hazardous. It’s possible to give activated charcoal in water or liquid paraffin medicine

4.2. Most important symptoms and effects, both acute and delayed

The repeated inhalation of vapors can cause drowsiness and giddiness.

4.3. Indication of any immediate medical attention and special treatment needed

If you experience harmful symptoms, contact a physician immediately.

SECTION5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
CO2 or dry powder extinguisher

Extinguishing means to avoid:
Direct jets of water

5.2. Special hazards arising from the substance or mixture

The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.
Manufactured under pressure in sealed metal container (test pressure 15 bar max). Cool containers with water spray trying to remove them from the fire. The aerosol containers can be overheated and burst violently ejected from a distance (protect the head using a safety helmet).

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Leave the area surrounding the spill or release. Do not smoke
Leave the surrounding area recalling that any overheating could project the cylinder at a considerable distance.
Wear gloves and protective clothing

6.1.2 For emergency responders:
Given the tightness of aerosol, it is unlikely that the spillage may occur.
However if some container is damaged likely to cause a loss, insulate the tank in question by bringing it to open air or covering it with inert material and fuel (eg sand, earth, vermiculite) and having the care to avoid any point of ignition that might pose a serious risk of fire.
Wear gloves and protective clothing
Eliminate all unguarded flames and possible sources of ignition. No smoking. Provision of sufficient ventilation.
Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill
Inform the competent authorities.

Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Recover the product for reuse, if possible, or the removal.

6.3.2 For cleaning up:
After wiping up, wash with water the area and materials involved

6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors
Use extreme caution when handling the product. Avoid shock or friction.
Do not smoke at work
At work do not eat or drink.
Vapors are heavier than air and may spread close to the ground and form explosive mixtures with air. Prevent formation of flammable or explosive concentrations in the air.
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 ° C.
Do not pierce or burn, even after the use. Do not spray on flame or incandescent objects. Use in adequately ventilated areas.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Pressurized container. Store in a ventilated place, in original packaging away from heat and sunlight. Keep away from open flames, sparks and heat sources. Avoid direct sunlight exposure.

7.3. Specific end use(s)

Private households (= general public = consumers):
Store in cool and dry places.

Public domain (administration, education, entertainment, services, craftsmen):
Handle with care.
Store in ventilated place away from heat sources,
Keep the container tightly closed.

SECTION8. Exposure controls/personal protection

8.1. Control parameters

No data available on the mixture.

Related to contained substances:

Petroleum gas:
DNEL, inhalation, long term, systemic effects, workers: 2.21 mg/m3
DNEL, dermal, long term, systemic effects, workers: 23.4 mg/kg bw/day
DNEL, inhalation, long term, systemic effects, population: 0.0664 mg/m3

8.2. Exposure controls

Appropriate engineering controls:
Private households (= general public = consumers):
Open with caution. Close the container immediately after its use.
Adopt the appropriate protective measures.

Public domain (administration, education, entertainment, services, craftsmen):
Open with caution. Close the container immediately after its use.
Adopt the appropriate protective measures.

Individual protection measures:

(a) Eye / face protection
Wear safety goggles to EN-166

(b) Skin protection

(i) Hand protection
Not needed for normal use.

(ii) Other
Avoid direct contact with the skin
Better is to use cotton antistatic clothing

(c) Respiratory protection
Work in a sufficiently ventilated to avoid inhaling the product.

(d) Thermal hazards
No hazard to report

Environmental exposure controls:
Use according to good working practices to avoid pollution into the environment.

SECTION9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Pressure vessel with base and liquefied gas	
Odour	characteristic	
Odour threshold	not determined	
pH	not determined	
Melting point/freezing point	not determined	
Initial boiling point and boiling range	Data not available	
Flash point	not determined	ASTM D92
Evaporation rate	[redacted]	
Flammability (solid, gas)	Data not available	
Upper/lower flammability or explosive limits	not determined	
Vapour pressure	This property is not suitable for safety and product classification	

Physical and chemical properties	Value	Determination method
Vapour density	This property is not suitable for safety and product classification	
Relative density	not determined	
Solubility	in water	
Water solubility	Yes	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	not determined	
Decomposition temperature	not determined	
Viscosity	not determined	
Explosive properties	not explosive	
Oxidising properties	non-oxidizing	
Container volume	270 ml	
Product volume	200 ml	
Pressure to 20°C	not determined	
Deformation pressure	not determined	
Burst pressure of the container	not determined	
Flash point of liquid phase	not determined	
Propellant inflammability	[redacted]	

9.2. Other information

No data available.

SECTION10. Stability and reactivity

10.1. Reactivity

No reactivity hazards

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Take precautionary measures against static discharges.
The aerosol product is stable for a period of more than 36 months and under normal storage conditions may not be dangerous reactions because the container is hermetically sealed.
Avoid contact with oxidizing materials. The product may
ignite. Avoid heat, open flames, sparks and hot surfaces.
In order to avoid that the metal of the container can deteriorate, keep away from acid reaction products or basica. Attention to heat because at temperatures exceeding 50 °C there is an increase in pressure inside the container such as to reach the deformation of the tank until the outbreak.

10.5. Incompatible materials

Incandescent bodies, oxidizing materials.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION11. Toxicological information

11.1. Information on toxicological effects

No toxicological tests have been performed on the mixture.

(a) acute toxicity: based on available data, the classification criteria are not met.
(b) skin corrosion/irritationbased on available data, the classification criteria are not met.
(c) serious eye damage/irritation: based on available data, the classification criteria are not met.
(d) respiratory or skin sensitization: based on available data, the classification criteria are not met.
(e) germ cell mutagenicity: based on available data, the classification criteria are not met.
(f) carcinogenicity: based on available data, the classification criteria are not met.
(g) reproductive toxicity: based on available data, the classification criteria are not met.
(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
(i) specific target organ toxicity (STOT) repeated exposurebased on available data, the classification criteria are not met.
(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:

Petroleum
gas: Toxicity:
Not-toxic but simple suffocating. Gaseous state has no effect on the skin and mucous membranes. The vapours may cause narcotic effects.
Irritating power:
The contact of the liquid product on the skin causes cold sores.
There is no evidence relating to the following effects: Chronic toxicity - Sensitization - Mutagenesis - Teratogenesis - Carcinogenesis.

SECTION12. Ecological information

12.1. Toxicity

The product has not been tested for environmental impact in the event of accidental release in the environment.

Related to contained substances:

Petroleum gas:

Toxicity to fish, LC50, 96h: 24.11 mg/l
Toxicity to Daphnia, LC50, 48h: 14.22 mg/l
Toxicity to algae, EC50, 96h: 7.71 mg/l
C(E)L50 (mg/l) = 7,71

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

No data available on the mixture.

Related to contained substances:

Petroleum gas:
No data available

12.3. Bioaccumulative potential

No data available on the mixture.

Related to contained substances:

Petroleum gas:
No data available

12.4. Mobility in soil

No data available on the mixture.

Related to contained substances:

Petroleum gas:
No data available

12.5. Results of PBT and vPvB assessment

The substance / mixture does NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.6. Other adverse effects

No adverse effects

SECTION13. Disposal considerations

13.1. Waste treatment methods

The waste must be disposed of in compliance with the regulations in force delivering empty containers for final disposal and equipped to safely handle pressurized containers containing flammable liquids and gas waste. The empty container heated to temperatures exceeding 70 ° C can burst.
Recover if possible. Operate according to local or national regulations

SECTION14. Transport information

14.1. UN number

ADR/RID/IMDG/ICAO-IATA: 1950

ADR exemption because compliance with the following characteristics:
Combination packagings: per inner packaging 1 L per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: AEROSOL flammable
ICAO-IATA: AEROSOL flammable

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 2
ADR/RID/IMDG/ICAO-IATA: Label : Onu
ADR: Tunnel restriction code : D
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L
IMDG - EmS : F-D, S-U

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: --

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous
IMDG: Marine polluting agent : Not

14.6. Special precautions for user

The transport must be carried out by authorised vehicles carrying dangerous goods in accordance with the requirements of the current edition of A.D.R Agreement. and the national provisions applicable.
The transport must be carried out in the original packaging and in packages that are made from materials resistant from the content and not likely to generate with this dangerous reactions. Attendants to the loading and unloading of dangerous goods must have received proper training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

It is not intended to carry bulk

SECTION15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 2013/10/UE (Aerosol), Legislative Decree no. 3/2/1997 no. 52 (Classification, packaging and labeling of dangerous substances). Legislative Decree 14.3.2003 n. 65 (Classification, packaging and labeling of dangerous substances). Leg. 02/02/2002 n. 25 (Risks related to chemical agents at work). D.M. Working 26/02/2004 (Occupational exposure limit); DM 04/03/2007 (Implementation of Directive no. 2006/8/EC). Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n.790/2009.D.Lgs. September 21, 2005 n. 238 (Seveso Ter).
Seveso category:
P3a - FLAMMABLE AEROSOLS

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION16. Other information

16.1. Other information

Description of the hazard statements exposed to point 3
H220 = Extremely flammable gas.
H280 = Contains gas under pressure; may explode if heated.

Classification based on data of all mixture components

Main normative references:
Regulation 2008/1272/EC
Regulation 2015/830/EC

Link ECHA (source of information on chemical substances produced or imported in Europe)
http://echa.europa.eu/it/information-on chemicals; jsessionid = 63968E9F85F91C26F330FF884618CFFF.live1
MSDS provided by the customer and on the same raw material

*** This Board cancels and replaces any previous edition.

HD Life Style eco fix no gas

Ecological gas-free hair spray

Data Compilation	30/09/2019
Revision date	30/09/2019
Date Print	08/11/2019

1 IDENTIFICATION OF THE COMPANY

1.1 Identifier Mixture / product: HD Life Style eco fix no gas

EAN: 8022033004666

1.2 Relevant identified uses of the mixture: Ecological gas-free hair spray

The pertinent uses are listed above. Other uses are not recommended.

Uses advised against:

1.3 Distributed by

Farmavita Ltd.
Via Garibaldi 82/84
20020 Locate Varesino (Como)
Tel .: 0331833467 Fax: 0331-833827
E-mail: info@farmavita.it
Site: www.farmavita.it

1.4 Emergency telephone: Italian Poison centers:

CENTRO ANTIVELENI ROMA - POLICLINICO A.GEMELLI - UNIVERSITA' CATTOLICA DEL SACRO CUORE
Tel. 06.3054343

CENTRO ANTIVELENI BERGAMO - OSPEDALI RIUNITI DI BERGAMO
Tel. 800 88.33.00

CENTRO ANTIVELENI FIRENZE -AZIENDA OSPEDALIERA CAREGGI
Tel. 055.7947819

CENTRO ANTIVELENI FOGGIA - AZIENDA OSPEDALIERO UNIVERSITARIA DI FOGGIA
Tel.0881.732326

CENTRO ANTIVELENI MILANO - OSPEDALE NIGUARDA CA' GRANDA
Tel. 02.66101029

CENTRO ANTIVELENI NAPOLI - AZIENDA OSPEDALIERA CARDARELLI
Tel. 081.7472870

CENTRO ANTIVELENI PAVIA - FONDAZIONE SALVATORE MAUGERI
Tel. 0382.24444

2 HAZARDS IDENTIFICATION

Classification of cosmetic product

The mixture is a hairspray and falls into the category of cosmetics, however it presents a physical danger due to the flammability of the mixture.
• Classification system:
Cosmetics Regulation1223 / 2009CE
For physical hazards, refer to Regulation 1272/2008 / CE (CLP) - X ATP
GHS02 flame

Signal Word: DANGER
H225 Highly flammable liquid and vapor.

Label elements

H225: Highly flammable liquid and vapor.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211: Do not spray on an open flame or other ignition source.
P261: Avoid breathing aerosols.
P403 + P235: Store in a well-ventilated place. Keep cool.
P102: Keep out of reach of children.
Avoid spraying in the eyes

INGREDIENTS (INCI): Alcohol Denat., Methylal, VA / Crotonates / Vinyl neodecanoate Copolymer, Propylene Glycol, Aminomethyl Propanol, Argania Spinosa Kernel Oil, Parfum (Fragrance), Amyl Cinnamal, Calcium Stearate.

Other hazards: The mixture contains no substance considered PBT (persistent, bioaccumulative and toxic) and / or very persistent and very bioaccumulative vPvB) in Annex XIII of Regulation 1907 / 2006CE (REACH).

3 COMPOSITION / INFORMATION ON INGREDIENTS

60% -80% Ethyl alcohol - Alcohol Denat. (CAS N ° 64-17-5; EINECS N ° 200-578-6; REACH N ° 01-2119457610-43-0157):
Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Liq. 2, H225 Highly flammable liquid and vapor.
GHS07, Eye Irrit 2, H319 Causes serious eye irritation.

10% -20% Dimethoxymethane (CAS N ° 109-87-5; EC N ° 203-714-2; REACH N ° 01-2119664781-31-XXXX)
Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Liq. 2, H225 Highly flammable liquid and vapor.

The full text of hazard symbols and H-phrases of the ingredients are shown in section 16.

4 FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation:	remove the person from the contaminated area, if breathing is irregular or stopped, make artificial respiration. Do not give drinks or medications to the patient. If the person is unconscious, put the person in the safe position and seek medical advice.
Eye contact:	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical attention if necessary.
Skin contact:	Wash with water. If irritation persists, seek medical advice.
Ingestion:	Ingestion of this product is a very unlikely event. however in the case of ingestion, do not induce vomiting, in order to avoid the risk of aspiration of the product into the trachea, with possible pulmonary congestion.

Keep at rest. Consult a physician.

4.2 Most important symptoms of both acute and delayed: not available

4.3. Indication of any immediate medical attention and special treatment: not available

5 FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media: Fire extinguishers, powder or foam.

Unsuitable extinguishing agents: Do not use water jet. The water is not effective to extinguish the fire, however, it can be used to cool containers exposed to flames to prevent explosions.

5.2 Special hazards arising from the substance or mixture:

HAZARDS DUE TO EXPOSURE IN THE EVENT OF FIRE
Overpressure can be created in containers exposed to fire with danger of explosion.
Avoid breathing combustion products (carbon oxides, toxic pyrolysis products, etc.).

5.3 Advice for firefighters:

GENERAL INFORMATIONS
Cool the containers with water jets to avoid decomposition of the product and the development of substances potentially hazardous for health. Always wear the complete fire protection equipment. Pick extinguishing water that must not be discharged into drains. Dispose of contaminated water and the remains of the fire according to current regulations.
EQUIPMENT
Protective helmet with visor, fireproof clothing (fireproof jacket and trousers with bands around arms, legs and waist), gloves (fireproof, cut resistant and dielectric), self-contained breathing apparatus (self-protector).

6 MEASURES IN CASE OF ACCIDENTAL RELEASE

6.1 Personal precautions, protective equipment and procedures in case of emergency: Eliminate all sources of ignition (cigarettes, flames, sparks, etc.). Before cleaning any loss or payment, people involved in cleaning must wear appropriate personal protective equipment. Plastic or rubber gloves, respirator, eye protection, and apron may be required for cleaning large spills. For information on risks for the environment and health, protection of the respiratory airways, ventilation and individual protective measures refer to the other sections of this sheet.

6.2 Environmental precautions: Do not discharge into drains/surface waters/groundwater

6.3 Methods and materials for containment and cleaning up:

Small Spills: Wear appropriate protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as “speed dry” to soak up material. Sweep up material using non-sparkling materials (e.g,. plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container.
Large Spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.
The disposal of contaminated material must be made in accordance with point 13.

6.4 Reference to other sections: See also section. 8 and 13.

7 HANDLING AND STORAGE

7.1	Precautions for Safe Handling:	Do not eat, drink or smoke while handling this product. Highly flammable liquid and vapor. When used as intended, , no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.
7.2	Conditions for safe storage, including any incompatibilities:	Keep containers upright and in secure position in order to avoid falls or collisions. Protect from sunlight, heat sources and do not keep at temperatures above 50 ° C. Keep away from oxidising agents and strong acid or alkaline products. Store in places intended for flammable products, with appropriate ventilation and electrical system. The product can accumulate electrostatical charges.
7.3	Specific end uses:	not provided

8 CONTROLS / PERSONAL PROTECTION

8.1 Limit values for exposure: Data refer to the individual ingredients listed in section. 3:

ETHYL ALCOHOL - ALCOHOL DENAT. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157):

TLWV / TWA: 1880mg / m3 (1000 ppm)
Inhalation DNEL (short term, local): 1900mg / m3 (1000ppm)
Inhalation DNEL (long-term, systemic): 950mg / m3 (500ppm)
Contact DNEL (long-term, systemic): 343mg / kgbw / day
Source: IUCLID section 7 general summary.
PNEC aqua (freshwater): 0.96mg / l
PNEC aqua (sea water): 0.79mg / l
PNEC aqua (intermittent releases): 2.75mg / l
PNEC STP: 580mg / l
PNEC sediment (fresh water): 3.6mg / kgdw
PNEC sediment (sea water): 2.9mg / kgdw
PNEC soil: 0.63 mg / kgdw
PNEC oral: 0.38g / kg food

(Source: ECHA - MSDS of this substance)

DIMETHOXYMETHANE (CAS N ° 109-87-5; EC N ° 203-714-2; REACH N ° 01-2119664781-31-XXXX)
TWA: 1000 ppm ACGIH

Inhalation
DNEL (long-term, systemic) - workers: 126.6 mg / m3
DNEL (long-term, systemic) - consumers: 31.5 mg / m3
Contact
DNEL (long-term, systemic) - workers: 17.9 mg / kg bw / day
DNEL (long-term, systemic) - consumers: 18.1 mg / kg bw / day
Ingestion
DNEL (long-term, systemic) - consumers: 18.1 mg / kg bw / day
PNEC fresh water: 14.577mg / l
PNEC sea water: 1.477mg / l
PNEC STP: 10 g / l

PNEC sediment fresh water: 13.13mg / kg dw
PNEC sediment sea water: 1.313 mg / kg dw
PNEC soil: 4.654 mg / kgdw

(Source: ECHA - MSDS of this substance)

8.2 personal and environmental exposure control:

Respiratory protection: not necessary, however, if the operating conditions require it (in case of very long use of the product), use a suitable mask for organic solvents.

Hand protection: For prolonged use of this product, use protective gloves to work Category I (EN 374) as latex, PVC or equivalent. For the final choice of work glove material must be considered: degradation, breakage times and permeation. The gloves have a limit depends on the duration of exposure.

Eye protection: Not required, however, in case of prolonged use of the product, use of safety glasses with side protection (ref. Standard EN 166).

Skin protection: Use antistatic clothing, preferably in natural fibers. In case of contact with the product, all wetted parts of the skin should be washed.

Thermal hazards: not available

Environmental exposure controls: avoid release to the environment

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 General informations:

- appearance: colorless liquid
- smell: perfume / alcohol

9.2 Important information on health, safety and the environment:

- pH: Not applicable
- Melting point / freezing point: not available
- point / boiling range: not available
- Flash point: <23 ° C
- Flammability (solid, gas): easily flammable
- Upper / lower flammability limits: not available
- explosive properties: not available
- oxidizing properties: not available
- vapor pressure: not available
- relative density: 0.81 - 0.83
- solubility:
  - water solubility: partially soluble
  - fat solubility (n-hexane): partially soluble
- partition coefficient: (N-octanol / water) not available
- viscosities: not available
- Vapor density: not available
- evaporation rate: not available
- Auto-ignition temperature: not available
- decomposition temperature: not available

9.3 Other information: VOC (Directive 1999/13 / EC): 93.5% (w / w) - 767g / l

10 STABILITY AND REACTIVITY'

10.1 Reactivity	See sect. 10.4 and 10.6
10.2 chemical stability	The product is stable if properly stored.
10.3 Possibility of hazardous reactions	See sect. 10.5
10.4 Conditions to avoid:	Avoid exposure to temperatures above 50 ° C. The preparation is stable to handling and storage conditions recommended in section 7 HANDLING AND STORAGE. Avoid overheating, electrostatic discharge and all ignition sources. Avoid exposure to sources of heat and open flames.
10.5 Incompatible materials:	Keep away from oxidizing agents, chemicals or basic products, in order to avoid corrosion of the container.
10.6 Hazardous decomposition products:	When heated or in case of fire, potentially vapours dangerous to health can be released

11 TOXICOLOGICAL INFORMATION

ATE MIX (oral) >2000 mg/l (calculated

Acute toxicity Ingestion: Product ingestion is an unlikely event. Any ingestion causes irritation to gastrointeric tract. Other symptoms may be nausea, vomiting.
Acute inhalation toxicity: inhalation of this product is an individual low probability event.
Contact with the skin: the product is a cosmetic suitable for contact with the skin. People allergic to one of the substances listed in INGREDIENTS may have redness
Eye contact: Irritation with redness and tearing phenomena

TOXICITY FOR INGREDIENTS INDICATED IN SECTION 3:

ETHYL ALCOHOL - ALCOHOL DENAT. (CAS 64-17-5; EINECS No. 200-578-6; N ° 01-2119457610-43-0157 REACH):

Acute Oral Toxicity (OECD401 equivalent): LD50 Rat: 6.2 - 15g / kgbw
For Inhalation (OECD403 equivalent): Rat LC50 (4hr)> 50mg / l
Dermal: Data not available.
Available data indicate that this is not classifiable.
Source IUCLID 7.2 Chapter summary.

Corrosion / irritation
All acute exposure studies available 4-hour show that is not irritating nor animal (OECD404 or equivalent) nor on men. In humans, studies of repeated doses show that there are no irritation following repeated applications on a whole day under occlusive conditions for a maximum of 12 days. Additional exposures cause irritation if necessary.
The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.3 Chapter summary.

Serious eye damage / eye irritation
Studies carried out in accordance with OECD Guideline 405 show that causes moderate eye irritation.
All effects disappear in 8-14 days. The type of response is not sufficient to place the substance in accordance with Directive 67/548 but it is sufficient, in terms of conjunctival response, to place the substance in irritant category 2 under Regulation 1272/2008.
Source IUCLID 7.3 Chapter Summary

respiratory or skin sensitization study of swelling rat: negative
Local Lymph Node Assay (OECD429): Negative
Cavia higher education: (OECD406) Negative
respiratory sensitization: Data not available
The available data indicate that they are not satisfied with the classification criteria.

Source IUCLID 7.4 Chapter Summary

Germ cell mutagenicity studies on bacterial reverse mutation
(OECD471): all negative
In vitro cytogenetic studies (eg OECD473): Negative without metabolic activation. No studies with metabolic activation
In vitro gene mutation studies on mammals (efOECD476): negative with and without metabolic activation

In vivo micro nucleic acid testing (OECD474): there are no comprehensive evidence showing that ethanol cause micronuclei in the bone marrow
In vivo chromosomal aberration test (OECD475): negative.
dominant lethal essay (OECD478): it is unlikely that ethanol produces effects until the maximum tolerated dose. There is some evidence from in vitro studies, that ethanol can cause genotoxic and clastogenic effects. However the observed effects are weak and need only at very high doses. The conclusion of the evidence is that ethanol is not genotoxic. The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.6 Chapter Summary

Carcinogenicity Rat: NOAEL> 3000 mg / kg
Cats: female NOAEL> 4400mg / kg, male
NOAEL> 4250mg / kg based on historical control data, BMDL10 = 1400mg / kg based on concurrent control data.
Source IUCLID 7.7 Chapter Summary
In humans, the consumption of alcoholic beverages is associated with an increased incidence of certain cancers. There is no evidence that human exposure to ethanol, unlike the repeated consumption of alcoholic beverages, highlighting an increase in the incidence of tumors. The available data indicate that they are not satisfied with the classification criteria.
Reproductive toxicity FERTILITY ':
NOAEL (oral, rat) = 13.8g / kg (OECD416 equiv.))
NOAEC (inhalation, rat)> 16,000ppm
Developmental toxicity (OECD414 equiv):
NOAEL (oral) = 5.2g / kgbw / day
NOAEC (inhalation) = 39mg / l.
Source IUCLID 7.8 Chapter Summary

In humans, excessive consumption of alcohol during pregnancy is associated with induction of fetal alcohol syndrome in the offspring, causing reduction in the birth weight and sometimes physical and mental defects. There is no evidence that these effects can be caused by exposure if not the direct ingestion of alcoholic beverages. The concentration of ethanol in the blood resulting from any exposure to ethanol different from deliberate and repeated oral consumption is unlikely to achieve associable levels for reproductive effects or development. From the available data it can be concluded that it is impossible to reach doses of ethanol that can produce adverse reproductive effects if not caused by oral consumption of large quantities, doses normally only associated with an alcohol problem, it follows that a classification of reproductive toxicity or developmental which chemical is neither appropriate nor justified.
Partial source IUCLID section 7.8 Summary

specific target organ toxicity (STOT) - single exposure
No observed effect on the target organs for single exposure

specific target organ toxicity (STOT) - repeated exposure
In studies of chronic under-nutrition or drinking water in rats, NOAELs ranges from 1.73g / kg to 3.9g / kg.
The most sensitive effects on these doses appear to be in the male kidney. Effects appear only at doses far above the levels that require classification.
Source IUCLID 7.5 Chapter Summary

Danger Aspiration no dangers Aspiration
Toxicokinetics In humans, the ethanol is rapidly absorbed by the oral or respiratory route, it is distributed through all the tissues and organs and is rapidly metabolized and excreted. For inhalation exposures at the workplace, alcohol dehydrogens through metabolic pathway in the liver without saturating. Ethanol does not accumulate in the body.
The cutaneous absorption of ethanol is very low.
Information on likely routes of exposure Inhalation is the most likely route of exposure during normal use. The dermal absorption is likely only with prolonged exposure and occluded places. The substance is normally absorbed by ingestion.
Symptoms related to the physical, chemical and toxicological
Ingestion: Swallowing may have the following effects:
depression of the central nervous system, nausea / vomiting, symptoms similar to intoxication by alcohol
Inhalation: Inhalation of high concentrations of vapor may cause temporary respiratory irritation, headaches, nausea.
Chronic effects Chronic effects not expected.

(Source of the substance MSDS)

DIMETHOXYMETHANE (CAS N ° 109-87-5; EC N ° 203-714-2; REACH N ° 01-2119664781-31-XXXX)

ACUTE TOXICITY
Acute toxicity: Oral
LD50 (male and female rats): 7.46 ml / kg body weight (6423 mg / kg body weight)

Acute toxicity by inhalation
LC50 (mouse): 57 000 mg / m^3 - 18354 ppm

Acute toxicity: dermal
LD50 (rabbit): 5000 mg / kg body weight

(Source: ECHA)

12 ECOLOGICAL INFORMATION

12.1 Toxicity:

Toxicity of individual ingredients:

ETHYL ALCOHOL - ALCOHOL DENAT.
FISH
LC50 (96hr) Salmo gairdneri: 13g/l; Pimephales promelas: 13.5, 14.2 and 15.3g/l.
FRESHWATER INVERTEBRATES
EC50 (48hr) Daphnia Magna: 12.34g/l; NOEC (Reproduction, 21 days): >10mg/l. Ceriodaphnia dubia: EC50 (48hrs): 5.012g/l; NOEC (Reproduction, 10 days): 9.6mg/l.
Palaemonetes pugio NOEC (Development , 10 days): 79mg/l.

INVERTEBRATES IN SALT WATER
EC50 (24hr) Artemia salina 23.9, >10g/l;
EC50 (48hr) Artemia salina nauplii: 857mg/l

SEAWEED:
Chlorella vulgaris, 72hr: EC50 275mg/l, EC10 11.5mg/l;
Selenastrum capricornutum, 72hr, EC50: 12.9g/l, EC10=0.44g/l;
Chlamydomonas eugametos, 48hr, EC50: 18g/l, NOEC=7.9g/l
Skeletonema costatum, NOEC (5 days): 3.24g/l.

(Source of this substance MSDS)

DIMETHOXYMETHANE (CAS N °; EC N ° 203-714-2; REACH N ° 01-2119664781-31-XXXX)

LC50 (96h) freshwater fish (Brachydanio rerio / Danio rerio):
> 1 g / L
NOEC: 1g / l

The LC50 value for freshwater fish is supported by two support studies. In the first, LC50 and EC50 were determined at 6.99 and 6.36 g / l, respectively in Pimephales promelas. In the second, 5.0 ppm of methylal did not induce mortality on Salmo trutta (trout), Lepomis macrochirus (Bluegill perch), Perca flavescens (Yellow perch), Carassius auratus (Goldfish) in 24 hours.

EC10, LC10 or NOEC for freshwater fish: 450,281 mg / l
EC50 / LC50 for freshwater invertebrates: 1 200 mg / l
EC10, LC10 or NOEC for freshwater invertebrates: 150.5 mg / l
EC50 / LC50 for freshwater algae: 874.12 mg / l

	EC10, LC10 or NOEC for freshwater algae: 145.77 mg / l (Source ECHA)
12.2 Persistence and degradability:	Date not available.
12.3 Potential storage:	Since the mixture is not available, the individual ingredients are not bioaccumulative.
12.4 Mobility in soil:	Data not available for the mixture. It provides high mobility considering the individual ingredients.
12.5 Results of PBT and vPvB	Not PBT or vPvB (evaluation done on individual ingredients)
12.6 Other adverse effects:	not provided

13 DISPOSAL CONSIDERATIONS

Do not dispose of the product with household waste. Not enter into drains. Disposal must take place in an authorized place and in compliance with the laws in force. Containers that are not completely empty must be delivered to an authorized waste disposal plant equipped to recover the metal container. For Italy the product must be disposed of or in a suitable purification plant or entrusted to a third party, always in compliance with Legislative Decree no. 152 of 3 April 2006.

14 TRANSPORT INFORMATION

14.1. Number ONU.ADR / RID, IMDG, IATA: 1993 Flammable liquid, nos

14.2. UN shipping name.
ADR / RID: Flammable liquid, NOS (vapor pressure at 50 ° C not more than 110 kPa) (Contains Ethanol, Dimethoxymethane)
IMDG: flamable LIQUID NOS (Contains Ethanol, Dimethoxymethane)
IATA: flamable LIQUID NOS (Contains Ethanol, Dimethoxymethane)

14.3. hazard class to transport.
ADR / RID: Class: 3 Label: 3 IMDG: Class: 3 Label: 3IATA: Class: 3 Label: 3

14.4. Packaging group.
.ADR / group RID, IMDG, IATA II

14.5. Environmental hazards.
ADR / RID: NO

14.6. Special precautions for user.

ADR / RID:
HIN - Kemler: 33
Limited Quantities: 5 LCodice Tunnel restriction: (D / E) Special Provision: 640C

IMDG:
EMS: FE, SE
Limited Quantities: 5 L

Cargo: Maximum quantity: 60 LIstruzioni Packaging: 364Pass .: Maximum quantity: 5 LIstruzioni Packaging: Special 353Istruzioni: A3

IATA: Cargo: Maximum quantity: 60 L
Packing instructions: 364
Pass.: Maximum quantity: 5 L
Packing instructions: 353
Special Instructions: A3

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code. Not relevant information.

15 REGULATORY INFORMATION

15.1 Regulations and legislation on health, safety and the environment specific to the substance or mixture:

REGULATION (EC) n. 1223/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of November 30, 2009 on cosmetic products.

Regulation 1907/2006 / CE (REACh).
Regulation 1272/2008 / EC (CLP) X ATP
Regulation 830/2015 EU
ITALY: D. lgs. 9 April 2008, n. 81 SINGLE TEXT ON HEALTH AND SAFETY AT WORK

This is not an exhaustive list

15.2 Chemical Safety Assessment
Not applicable - PIF (Product Information File) available on request.

16 OTHER INFORMATION

Hazard symbols and full text of H-phrases in section 3 of this sheet relative to the individual components:

REGULATION 1272/2008 CE:

GHS02: flame symbol
Flam. Liq. 2: Flammable liquid Category 2
H225 – Highly flammable liquid and vapour.

GHS07: Exclamation mark symbol
Eye Irrit.2: Eye irritation, category 2
H319: Causes serious eye irritation.
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MSDS V1.0 30/09/2019

ABBREVIATIONS and ACRONYMS:

ACGIH = American Conference of Governmental Industrial Hygienists
CSR = Chemical Safety Report
DNEL = Derived No Effect
DMEL = Derived Minimum Effect Level
EC50 = Effective Concentration median
IC50 = inhibitory concentration, 50%
Klimisch = Evaluation criterion for the reliability (reliability) of the method used
LC50 = Lethal concentration, 50%
LD50 = Lethal Dose Media
PNEC = Expected Non Effect Concentration
N.A. = Not applicable
n.d. = Not available
Substance PBT = Persistent, Bioaccumulative and Toxic
CNS = central nervous system
= STOT specific target organ toxicity
(STOT) RE Repeated Exposure =
(STOT) SE = Single exposure
Key study = study of greatest relevance

TLV®TWA = Threshold Limit Value - Time Weighted Average
TLV®STEL = Threshold Limit Value - for a short time exposure limit
UVCB = substance from the composition is not known and variable (substances of Unknown or Variable composition)
vPvB = very Persistent and very Bioaccumulative
P = Persistent

HD Life style EXTRA HOLD hairspray **Hairspray**

MSDS creation date: 27/09/2019
Revision date: 01/10/2019
Print date: 01/10/2019

1 IDENTIFICATION OF THE COMPANY

1.1 Identifier Mixture / product: HD Life style EXTRA HOLD hairspray

EAN Code: 8022033006851

1.2 Relevant identified uses of the mixture: Hairspray (for hair care)

Uses advised against: The pertinent uses are listed above. Other uses are not recommended.

1.3 Distributed by

FARMAVITA s.r.l.
Via Garibaldi 82/84
20020 Locate Varesino (Como)
Tel.: 0331833467 Fax: 0331-833827
Email: info@farmavita.it
Sito: www.farmavita.it

1.4 Emergency telephone: Italian Poison centers:

CENTRO ANTIVELENI ROMA - POLICLINICO A.GEMELLI - UNIVERSITA' CATTOLICA DEL SACRO CUORE
Tel. 06.3054343

CENTRO ANTIVELENI BERGAMO - OSPEDALI RIUNITI DI BERGAMO
Tel. 800 88.33.00

CENTRO ANTIVELENI FIRENZE -AZIENDA OSPEDALIERA CAREGGI
Tel. 055.7947819

CENTRO ANTIVELENI FOGGIA - AZIENDA OSPEDALIERO UNIVERSITARIA DI FOGGIA
Tel.0881.732326

CENTRO ANTIVELENI MILANO - OSPEDALE NIGUARDA CA' GRANDA
Tel. 02.66101029

CENTRO ANTIVELENI NAPOLI - AZIENDA OSPEDALIERA CARDARELLI
Tel. 081.7472870

CENTRO ANTIVELENI PAVIA - FONDAZIONE SALVATORE MAUGERI
Tel. 0382.24444

2 HAZARDS IDENTIFICATION

Classification of cosmetic product

The mixture is an hair spray for hair and falls into the category of cosmetics, however it is into a container under pressure and so the product falls into the category of aerosols.
• Classification system: The classification is based on the directives: 75 / 324CE - 94/1 EC - 2008 / 47CE (aerosol) - EU 2013/10, and on the following regulations: Regulation 807/2003 CE
Regulation 1223 / 2009CE

GHS02 flame
Signal Word: DANGER
Flam. Aerosol 1, H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.

Label elements

DANGER
H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.
P251: Do not pierce or burn, even after use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211: Do not spray on an open flame or other ignition source.
P410 + P412: Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.
P102: Keep out of reach of children.
P261: Avoid breathing spray
Do not spray in eyes

INGREDIENTS (INCI): Alcohol Denat., Butane, Propane, Isobutane, Acrylates/t-Butylacrylamide Copolymer, Aminomethyl Propanol, Propylene Glycol, PEG-12 Dimethicone, Parfum (Fragrance), Limonene, Benzyl Alcohol, Linalool, Eugenol.

Other hazards: The mixture contains substances considered PBT (persistent, bioaccumulative and toxic) and / or very persistent and very bioaccumulative vPvB) in Annex XIII of Regulation 1907 / 2006CE (REACH).

3 COMPOSITION / INFORMATION ON INGREDIENTS

- 50%-60% Ethyl alcohol - Alcohol Denat. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157): 10%-15%
Regulation (EC) No. 1272/2008 (CLP):
GHS02, Flam. Liq. 2, H225 Highly flammable liquid and vapour.
GHS07, Eye Irrit,2, H319 Causes serious eye irritation.

- 35%-45% Mixture of following substances (variable composition):

- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx): 40%-75%**

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx): 15%-35%**

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx):**

4%-35%

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

Full text of hazard symbols and H-phrases of the ingredients are listed in section 16.

4 FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation:	In case of illness take away from the contaminated area, if breathing is irregular or stops, make artificial respiration. Do not give drinks or medications to the patient. If the person is unconscious, take the position and seek medical advice.
Eye contact:	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical attention if necessary
Skin contact:	Wash with water. If irritation persists, seek medical advice.
Ingestion:	If you were to verify the ingestion, do not induce vomiting, in order to avoid the risk of aspiration of the product into the trachea, with possible pulmonary congestion. Keep at rest. Seek medical advice.

4.2 Most important symptoms of both acute and delayed: not available

4.3. Indication of any immediate medical attention and special treatment: not available

5 FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media:	Fire extinguishers, powder or foam.
Unsuitable extinguishing media:	Do not use water jet. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.
5.2 Special hazards arising from the substance or mixture:	Excess pressure may form in containers exposed to fire at a risk of explosion. Avoid to breathe combustion products (carbon oxide, toxic pyrolysis products, etc.).
5.3 Advice for firefighters:	Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Keep containers cool by spraying with water if exposed to fire. Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), self-respirator (self-protector).

6 MEASURES IN CASE OF ACCIDENTAL RELEASE

6.1 Personal precautions:	Eliminate all sources of ignition (cigarettes, flames, sparks, etc.). Before cleaning any spill or leak, individual involved in a spill cleanup must wear appropriate Personal Protective Equipment. Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills. For information on risks for the environment and health, protection of the respiratory airways, ventilation and individual protective measures refer to the other sections of this sheet.
6.2 Environmental precautions:	Do not discharge into drains/surface waters/groundwater
6.3 Methods and materials for containment and cleaning up:	**Small Spills:** Wear appropriate protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as “speed dry” to soak up material. Sweep up material using non-sparkling materials (e.g,. plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. **Large Spills:** Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. The disposal of contaminated material must be made in accordance with point 13.
6.4 Reference to other sections:	See also section. 8 and13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling:	Do not eat, drink or smoke when handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.
7.2 Conditions for safe storage, including any incompatibilities:	Keep containers upright and in secure position in order to avoid falls or collisions. Protect from sunlight, heat sources and do not keep at temperatures above 50 ° C. Keep away from oxidising agents and strong acid or alkaline products. Store in places intended for flammable products, with appropriate ventilation and electrical system. The product can accumulate electrostatical charges.
7.3 Specific end uses:	not provided

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters: Data refer to the individual ingredients listed in section 3:

Mixture of following substances (variable composition):

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx)**
- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx)**
- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx)**

Dangerous concentrations by professional inhalation are provided by ACGIH TLV 2010 tables as follows:
TLV TWA Average weighted concentration for working day of 8 hours (chronic exposure) to which almost all workers may be repeatedly exposed day after day without adverse effects:
Alkanes C1-C4: 1000 ppm
ACGIH also recommended that the exposure limit values of biologically inert particles, without a value TLV, is maintained below 3 mg / m³ for the respirable particles; to below 10 mg / m³ for the inhalable.
For monitoring / control conditions, it is suggested to refer to the current legislation.

Values DNEL (Derived Non Effect) and DMEL (Derived Minimum Effect Level):
Not derived in that the mixture contains no hazardous components for the health.
It is suggested to stick to the values according to the above exposure limits for all applications.
(Refer to Section 15)

Values PNEC (S) (Predicted No Effect Concentration):
PNEC values in water (continuous release):
Not derived as the mixture does not contain hazardous components for the environment
PNEC values in water (intermittent release):
Not derived because the mixture does not contain hazardous components for the environment
PNEC values in soil
Not derived because the mixture does not contain hazardous components for the environment
PNEC values for sedimentation:
Not derived because the mixture does not contain hazardous components for the environment
PNEC values in sewage treatment plants:
Not derived because the mixture does not contain hazardous components for the environment

(Source: ECHA - MSDS of substance)

ETHYL ALCOHOL - ALCOHOL DENAT. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157):

TLWV / TWA: 1880mg / m3 (1000 ppm)
Inhalation DNEL (short term, local): 1900mg / m3 (1000ppm)
Inhalation DNEL (long-term, systemic): 950mg / m3 (500ppm)
Contact DNEL (long-term, systemic): 343mg / kgbw / day
Source: IUCLID section 7 general summary.
PNEC aqua (freshwater): 0.96mg / l
PNEC aqua (sea water): 0.79mg / l
PNEC aqua (intermittent releases): 2.75mg / l
PNEC STP: 580mg / l
PNEC sediment (fresh water): 3.6mg / kgdw
PNEC sediment (sea water): 2.9mg / kgdw
PNEC soil: 0.63 mg / kgdw
PNEC oral: 0.38g / kg food

(Source: ECHA - MSDS of this substance)

8.2 personal and environmental exposure control:

Respiratory protection: not necessary, however, if the operating conditions require it (in case of very long use of the product), use a suitable mask for organic solvents.

Hand protection:	For prolonged use of this product, use protective gloves to work Category I (EN 374) as latex, PVC or equivalent. For the final choice of work glove material must be considered: degradation, breakage times and permeation. The gloves have a limit depends on the duration of exposure.
Eye protection:	Not necessary, however, in case of prolonged use of this product, use eye protection. (Ref. Standard EN 166).
Skin protection:	Use antistatic clothing, preferably in natural fibers. After contact with the product, all skin wetted parts must be washed.
Thermal hazards:	not available
Environmental exposure controls:	avoid littering

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 General informations:

- appearance:	colorless liquid under pressure (aerosol)
- odour:	alcoholic/ fruity scented (cherry)

9.2 Important information on health, safety and the environment:

- pH	not applicable
- Melting point / freezing point:	not available
- Point / boiling range:	not available
- Flash point:	From -104 ° C to -80 ° C (propellant)
- Flammability (solid, gas):	extremely flammable
- Upper / lower flammability limits:	Lim. Inf. 1.8% - Sup. 9.5% vol / vol in the air (propellant)
- Explosive properties:	not available
- Oxidizing properties:	not available
- Vapor pressure:	not available
- relative density:	0.61-0.63 (theoretical value of the mixture liquid + propellant) 0.80 - 0.82 (liquid without propellant)
- Solubility:	
- Water solubility:	partially soluble
- Fat solubility (n-hexane):	partially soluble
- Partition coefficient: (N-octanol / water)	not available
- viscosities	not available
- Vapor density:	not available
- Evaporation rate:	not available
- Auto-ignition temperature	from 400 to 490 ° C (propellant)
- Decomposition temperature	not available
9.3 Further information:	VOC (Directive 1999/13 / EC): 95% (w / w) – 579 g/l

10 STABILITY AND REACTIVITY

10.1 Reactivity	See sec. 10.4 and 10.6
10.2 chemical stability	The product is stable if properly stored.
10.3 Possibility of hazardous reactions	See sec. 10.5
10.4 Conditions to avoid:	The aerosol containers overheated to temperatures exceeding 50 ° C., They may deform, burst and be thrown to considerable distances. The

		preparation is stable at the handling and storage conditions recommended in paragraph HANDLING AND STORAGE. Avoid overheating, electrostatic discharge and all ignition sources. Avoid exposure to sources of heat and open flames.
10.5	Incompatible materials:	Keep away from oxidizing agents, chemicals or basic products, in order to avoid corrosion of the container.
10.6	Hazardous decomposition products:	When heated or in case of fire, potentially vapours dangerous to health can be released

11 TOXICOLOGICAL INFORMATION

ATE MIX (oral) >2000 mg/l (calculated)

Acute toxicity Ingestion: Product ingestion is an unlikely event. Any ingestion causes irritation to gastrointeric tract. Other symptoms may be nausea, vomiting.
Acute inhalation toxicity: inhalation of this product is an individual low probability event.
Contact with the skin: the product is a cosmetic suitable for contact with the skin. People allergic to one of the substances listed in INGREDIENTS may have redness
Eye contact: Irritation with redness and tearing phenomena

TOXICITY INFORMATION OF INGREDIENTS INDICATED IN SECTION 3:

Mixture of following substances (variable composition):

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx)**
- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx)**
- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx)**

INFORMATION ON TOXICOLOGICAL EFFECTS
Literature data concerning the toxicokinetic studies about the short chain alkanes (C1-C4), show how these alkanes exist in the vapor form at room temperature, and they are poorly absorbed. If the exposure involves an absorption (situation of higher concentrations), the latter would not be particularly relevant: there is little evidence of metabolism, as such mixture if it were absorbed, would normally be quickly exhaled.
In addition the studies, it would appear that the absorption tends to increase with increasing molecular weight. Unbranched molecules would be more easily absorbed than those branched and the aromatic molecules would be more easily absorbed than paraffin.
The main toxicological studies have been performed on rats.

ACUTE TOXICITY
The mixture at room temperature and atmospheric pressure, is presented as a colorless gas.
Consequently the information relating to acute toxicity by the oral and inhalation are not particularly relevant.

ACUTE ORAL TOXICITY
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture comes to a gaseous state at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

ACUTE INHALATION TOXICITY
The vapors may cause narcotic effects.
High inhaled air concentrations can lead to unconsciousness and asphyxiation from lack of oxygen.
For propane:
Key study propane:
LC50 rat (male / female) [15 minutes]: 800000 ppm
LC50 rat (male / female) [15 minutes]: 14442738 mg / m3
LC50 rat (male / female) [15 minutes]: 1443 mg / L
[Source: DG Clark and Tiston DJ (1982)]

Isobutane
Key study isobutane
LC50 rat (male) [2 hours] Gas Phase: 520400 ppm

[Source: Aviado (1982)]
Butane
rat LC50 [inhalation]: 658 mg / l 4 h (literature value)
No labeling required - related to substance: Butane
human studies [general population] have shown that the smell is not detectable below 20000 ppm (2%) and a concentration of 100,000 ppm (10%) has produced mild irritation to eyes, nose and respiratory tract but caused slight dizziness within a few minutes [evidenze_Anon weight of 198, Herman (Chairman 1966)

ACUTE DERMAL TOXICITY
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

CORROSION / IRRITATION
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns.

SERIOUS EYE DAMAGE / SERIOUS EYE IRRITATION
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted becasuse the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns.

RESPIRATORY OR SKIN SENSITIZATION
Respiratory sensitization: there are no studies that indicate this type of effect
Skin sensitization: according to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns

GERM CELL MUTAGENICITY
Experiments in vitro and on animals, we do not tell no evidence genotoxicity. Moreover the mixture may contain as an impurity 1,3-butadiene in a concentration of less than 0.1%; consequently it is not classified mutagenic in accordance with legislation on hazardous substances.

Information regarding propane
Genetic toxicity in vitro - Key study propane
Ames test in Salmonella typhimurium [OECD 471]
No evidence of mutagenic effects
Metabolic activation: ao no
Method: Mutagenicity (Salmonella tiphymurium - wise reversion)
[Source: Kirwin CJ Thomas and WC (1980)]

Information concerning the Liquefied Petroleum Gas [LPG Key study]
Test in vivo
Micronucleus test: rats - inhalation - [OECD Guideline 474]
Result: negative
[Source: Huntingdon Life Sciences (HLS), 2009b]

Carcinogenicity
There is no indication or evidence of carcinogenicity. The present state of knowledge, the test results for mutagenicity and toxicity with repeated administration, we should not expect a carcinogenic effect. Moreover the mixture may contain as an impurity 1,3-butadiene in a concentration of less than 0.1%; consequently it is not classified carcinogenic according to the Dangerous Substances legislation.

TOXIC TO REPRODUCTION
Reproductive toxicity
Literature data revealed no consistent evidence of toxicity for fertility; therefore the mixture is not classified as toxic for reproduction according to the Dangerous Substances legislation.
Here are the information about the individual substances in the mixture:

For propane:
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily

NOAEL (No Observed Adverse Effect Level) Parents: 21641 mg / L
NOAEL F1: 21,641 mg / L
Method: OECD Test Guideline 422
In animal studies (422 OECD, research screening) There were no effects that harm foetuses clues

Isobutane:
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) parents: 7,131 mg / L
NOAEL F1: 21,394 mg / L
Method: OECD Test Guideline 422

Butane:
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L
NOAEL F1: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there have been no indications of effects that harm foetuses.
Information concerning the Liquefied Petroleum Gas [LPG Key study]
in vivo study
Rat - Inhalation Exposure 13 wk., 6h / g., 5g / wk.
OECD Guideline413 EPA OPPTS870.4365 (90-
NOAEC: 10000 ppm
(M / F) no effect on the menstrual cycle, spermatogenesis, mobility and sperm count
Source: Huntingdon Life Sciences (HLS), 2009b]

Developmental Toxicity / Teratogenicity
The literature data did not reveal consistent evidence of developmental toxicity / teratogenicity: the main impurities in the mixture indicate that it is not classified as toxic for reproduction under the legislation on hazardous substances.
Here is information on the individual substances in the mixture

For propane
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21641 mg / L
NOAEL F1: 21,641 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication of effects about harm on foetuses.

Isobutane:
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L
NOAEL maternal: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication about damage on development.

For butane
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L
NOAEL maternal: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication about damage on development.

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE
No information

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE
Oral
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with

any significant concentrations in tests.

Cutaneous
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. It is extremely volatile and flammable at room temperature and it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

Inhalation
Literature data showed no consistent evidence due to inhalation: Literature data about inhalation showed no consistent evidence: the mixture with the main impurities is not classified it as toxic according to the Dangerous Substances legislation

Here are the information about the individual substances in the mixture

propane
From studies conducted for a period of 6 weeks old on male and female rats they were not observed neurological, hematologic or clinical effects. At doses of 12,000 ppm for male animals showed a 25% decrease in weight during the first week of exposure.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is 12,000 ppm (equivalent to 21 641 mg / m3).

Isobutane
From studies conducted for a period of 6 weeks old on male and female rats they were not observed neurological, hematologic or clinical effects.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is of 21,394 mg / L [OECD TG 422] method.

Butane
From studies conducted for a period of 6 weeks on male and female rats they were not observed neurological, hematologic or clinical effects.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is of 21,394 mg / L [OECD TG 422] method.
The vapors may cause narcotic effects
High concentrations in the air inhaled can lead to unconsciousness and asphyxiation due to lack of oxygen.

DANGER ASPIRATION
Not applicable. The mixture at room temperature and atmospheric pressure, is a colourless gas.

FURTHER INFORMATION
Under normal conditions of use, the mixture can be used in safety according to the above. However, the deliberate abuse of high concentrations of vapor, even for short periods, may result in unconsciousness or prove fatal.

ETHYL ALCOHOL - ALCOHOL DENAT. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157):

Acute Oral Toxicity (OECD401 equivalent): LD50 Rat: 6.2 - 15g / kgbw
For Inhalation (OECD403 equivalent): Rat LC50 (4hr)> 50mg / l
Dermal: Data not available.
Available data indicate that this is not classifiable.
Source IUCLID 7.2 Chapter summary.

Corrosion / irritation
All acute exposure studies available 4-hour show that is not irritating nor animal (OECD404 or equivalent) nor on men. In humans, studies of repeated doses show that there are no irritation following repeated applications on a whole day under occlusive conditions for a maximum of 12 days. Additional exposures cause irritation if necessary.
The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.3 Chapter summary.

Serious eye damage / eye irritation
Studies carried out in accordance with OECD Guideline 405 show that causes moderate eye irritation.
All effects disappear in 8-14 days. The type of response is not sufficient to place the substance in accordance with Directive 67/548 but it is sufficient, in terms of conjunctival response, to place the substance in irritant category 2 under Regulation 1272/2008.
Source IUCLID 7.3 Chapter Summary

respiratory or skin sensitization study of swelling rat: negative
Local Lymph Node Assay (OECD429): Negative
Cavia higher education: (OECD406) Negative
respiratory sensitization: Data not available
The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.4 Chapter Summary

Germ cell mutagenicity studies on bacterial reverse mutation
(OECD471): all negative
In vitro cytogenetic studies (eg OECD473): Negative without metabolic activation. No studies with metabolic activation
In vitro gene mutation studies on mammals (efOECD476): negative with and without metabolic activation

In vivo micro nucleic acid testing (OECD474): there are no comprehensive evidence showing that ethanol cause micronuclei in the bone marrow
In vivo chromosomal aberration test (OECD475): negative.
dominant lethal essay (OECD478): it is unlikely that ethanol produces effects until the maximum tolerated dose. There is some evidence from in vitro studies, that ethanol can cause genotoxic and clastogenic effects. However the observed effects are weak and need only at very high doses. The conclusion of the evidence is that ethanol is not genotoxic. The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.6 Chapter Summary

Carcinogenicity Rat: NOAEL> 3000 mg / kg
Cats: female NOAEL> 4400mg / kg, male
NOAEL> 4250mg / kg based on historical control data, BMDL10 = 1400mg / kg based on concurrent control data.
Source IUCLID 7.7 Chapter Summary
In humans, the consumption of alcoholic beverages is associated with an increased incidence of certain cancers. There is no evidence that human exposure to ethanol, unlike the repeated consumption of alcoholic beverages, highlighting an increase in the incidence of tumors. The available data indicate that they are not satisfied with the classification criteria.
Reproductive toxicity FERTILITY ':
NOAEL (oral, rat) = 13.8g / kg (OECD416 equiv.))
NOAEC (inhalation, rat)> 16,000ppm
Developmental toxicity (OECD414 equiv):
NOAEL (oral) = 5.2g / kgbw / day
NOAEC (inhalation) = 39mg / l.
Source IUCLID 7.8 Chapter Summary

In humans, excessive consumption of alcohol during pregnancy is associated with induction of fetal alcohol syndrome in the offspring, causing reduction in the birth weight and sometimes physical and mental defects. There is no evidence that these effects can be caused by exposure if not the direct ingestion of alcoholic beverages. The concentration of ethanol in the blood resulting from any exposure to ethanol different from deliberate and repeated oral consumption is unlikely to achieve associable levels for reproductive effects or development. From the available data it can be concluded that it is impossible to reach doses of ethanol that can produce adverse reproductive effects if not caused by oral consumption of large quantities, doses normally only associated with an alcohol problem, it follows that a classification of reproductive toxicity or developmental which chemical is neither appropriate nor justified.
Partial source IUCLID section 7.8 Summary

specific target organ toxicity (STOT) - single exposure
No observed effect on the target organs for single exposure

specific target organ toxicity (STOT) - repeated exposure
In studies of chronic under-nutrition or drinking water in rats, NOAELs ranges from 1.73g / kg to 3.9g / kg.
The most sensitive effects on these doses appear to be in the male kidney. Effects appear only at doses far above the levels that require classification.
Source IUCLID 7.5 Chapter Summary

Danger Aspiration no dangers Aspiration
Toxicokinetics In humans, the ethanol is rapidly absorbed by the oral or respiratory route, it is distributed through all the tissues and organs and is rapidly metabolized and excreted. For inhalation exposures at the workplace, alcohol dehydrogens through metabolic pathway in the liver without saturating. Ethanol does not accumulate in the body.
The cutaneous absorption of ethanol is very low.
Information on likely routes of exposure Inhalation is the most likely route of exposure during normal use. The dermal absorption is likely only with prolonged exposure and occluded places. The substance is normally absorbed by ingestion.

Symptoms related to the physical, chemical and toxicological
Ingestion: Swallowing may have the following effects:
depression of the central nervous system, nausea / vomiting, symptoms similar to intoxication by alcohol
Inhalation: Inhalation of high concentrations of vapor may cause temporary respiratory irritation, headaches, nausea.
Chronic effects Chronic effects not expected.

12 ECOLOGICAL INFORMATION

12.1 ecotoxicity:

Mixture of following substances (variable composition):

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx)**
- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx)**
- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx)**

Toxicity
current data related to the aquatic toxicity showed no evidence of toxicity phenomena from an ecological point of view and the PNEC (S) were not derived for freshwater, marine water, sediment and soil.

Toxicity for fish
Butane:
LC50 (96h): 24.11 mg/l (Key study butane Fish - Short term QSAR EPA 2008)

Toxicity to daphnia
Butane:
LC50 (48h): 14.22 mg/l (Key study butane Daphnia - Short-term USEPA OPP 2008)
Toxicity to Algae
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena (They're improbable because of the volatility)

Toxicity to bacteria
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena (They're improbable because of the volatility)

Propane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: with or without
Method: Mutagenicity (Salmonella typhimurium - wise reversion)

Isobutane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: S-9 rat liver mix
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) reported to isobutene

Butane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: with or without
Method: Mutagenicity (Salmonella typhimurium - wise reversion)
chromosome aberration in vitro human lymphocytes
not clastogenic

Metabolic activation: with or without
Method: OECD Test Guideline 473

Toxicity to living organisms in the soil
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena (They're improbable because of the volatility)

Toxicity to terrestrial plants
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no (They're improbable because of the volatility)

ETHYL ALCOHOL - ALCOHOL DENAT.(N°CAS 64-17-5; N°EINECS 200-578-6; N°REACH 01-2119457610-43-0157):

FISH
LC50 (96hr) Salmo gairdneri: 13g/l; Pimephales promelas: 13.5, 14.2 and 15.3g/l.
FRESHWATER INVERTEBRATES
EC50 (48hr) Daphnia Magna: 12.34g/l; NOEC (Reproduction, 21 days): >10mg/l. Ceriodaphnia dubia: EC50 (48hrs): 5.012g/l;
NOEC (Reproduction, 10 days): 9.6mg/l.
Palaemonetes pugio NOEC (Development , 10 days): 79mg/l.

INVERTEBRATES IN SALT WATER
EC50 (24hr) Artemia salina 23.9, >10g/l;
EC50 (48hr) Artemia salina nauplii: 857mg/l

SEAWEED:
Chlorella vulgaris, 72hr: EC50 275mg/l, EC10 11.5mg/l;
Selenastrum capricornutum, 72hr, EC50: 12.9g/l, EC10=0.44g/l;
Chlamydomonas eugametos, 48hr, EC50: 18g/l, NOEC=7.9g/l
Skeletonema costatum, NOEC (5 days): 3.24g/l.

12.2 Furniture:	Data not available
12.3 Persistence and degradability:	Data not available.
12.4 Potential to accumulate:	Data not available, the individual ingredients are not bioaccumulative.
12.5 Results of PBT and vPvB	No PBT or vPvB (evaluation based on individual ingredients)
12.6 Other adverse effects:	not provided

13 DISPOSAL CONSIDERATIONS

The product must not be disposed of with household waste. Do not empty into drains. Disposal of the product must be in compliance with national laws. CONTAINERS not completely empty must be brought to a authorized disposal equip to recover the metal container containing flammable gas.

14 TRANSPORT INFORMATION

Road / rail transport ADR / RID (cross-border)
- ADR / RID-GGVS / E: 2 5F Gases
- Kemler Number: -
- UN-Number: 1950
- Packaging group: -
- Label: 2.1
- Description of goods: 1950 AEROSOLS
- Limited quantity (LQ) 1L
- the Tunnel restriction code D

- **Maritime transport IMDG:**
- IMDG Class: 2.1
- UN-Number: 1950
- Label 2.1
- Packaging group: -

• EMS Number: F-D, S-U
• Marine pollutant: no
• Proper shipping name: AEROSOLS

• **Air transport ICAO-TI and IATA-DGR:**
• ICAO / IATA: 2.1
• UN / ID Number: 1950
• Label 2.1
• Packaging group: -
• Correct technical name: AEROSOLS, flammable

15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations, legislation specific for the substance or mixture:

REGULATION (EC) No. 1223/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 November 2009 on cosmetic products.

Statement Aerosol
Directives: 75 / 324CE - 94/1 EC - 2008 / 47CE - 2013/10 EU
Regulation EC 807/2003
Regulation EC 219/2009

Regulation 1907/2006 / EC (REACH).
Regulation 1272/2008 / EC (CLP) X ATP
Regulation UE 830/2015
D. lgs. April 9, 2008, n. 81 ACT ON HEALTH AND SAFETY AT WORK (Italy)

This is not an exhaustive list.

15.2 Chemical Safety Assessment Not applicable

16 FURTHER INFORMATION

Hazard symbols and full text of H-phrases of section 3 of the MSDS for the individual components:

GHS02: flame symbol
Flam. Liq. 2: Flammable liquid Category 2
H225 – Highly flammable liquid and vapour.
Flam. Gas 1: Flammable gas Category 1
H220 Extremely flammable gas

GHS04: gas cylinder symbol
Press. Gas: Gas under pressure
H280 Contains gas under pressure, may explode if heated.

GHS07: Exclamation mark symbol
Eye Irrit.2: Eye irritation, category 2
H319: Causes serious eye irritation.

MSDS / Information cosmetic sheet V1.1 01/10/2019. With respect to version 1.0, points 3 and 16 have been modified.

Previous versions
MSDS / Information cosmetic sheet V1.0 27/09/2019

ABBREVIATIONS and ACRONYMS:

ACGIH = American Conference of Governmental Industrial Hygienists
CSR = Chemical Safety Report
DNEL = Derived No Effect
DMEL = Derived Minimum Effect Level
EC50 = Effective Concentration median
IC50 = inhibitory concentration, 50%
Klimisch = Evaluation criterion for the reliability (reliability) of the method used
LC50 = Lethal concentration, 50%
LD50 = Lethal Dose Media
PNEC = Expected Non Effect Concentration
N.A. = Not applicable
n.d. = Not available
Substance PBT = Persistent, Bioaccumulative and Toxic
CNS = central nervous system
= STOT specific target organ toxicity
(STOT) RE Repeated Exposure =
(STOT) SE = Single exposure
Key study = study of greatest relevance
TLV®TWA = Threshold Limit Value - Time Weighted Average
TLV®STEL = Threshold Limit Value - for a short time exposure limit
UVCB = substance from the composition is not known and variable (substances of Unknown or Variable composition)
vPvB = very Persistent and very Bioaccumulative
P = Persistent

HD Life style EXTREME hairspray **Hairspray**

MSDS creation date: 27/09/2019
Revision date: 01/10/2019
Print date: 01/10/2019

1 IDENTIFICATION OF THE COMPANY

1.1 Identifier Mixture / product: HD Life style EXTREME hairspray

EAN Code: 8022033004659

1.2 Relevant identified uses of the mixture: Hairspray (for hair care)

Uses advised against: The pertinent uses are listed above. Other uses are not recommended.

1.3 Distributed by

FARMAVITA s.r.l.
Via Garibaldi 82/84
20020 Locate Varesino (Como)
Tel.: 0331833467 Fax: 0331-833827
Email: info@farmavita.it
Sito: www.farmavita.it

1.4 Emergency telephone: Italian Poison centers:

CENTRO ANTIVELENI ROMA - POLICLINICO A.GEMELLI - UNIVERSITA' CATTOLICA DEL SACRO CUORE
Tel. 06.3054343

CENTRO ANTIVELENI BERGAMO - OSPEDALI RIUNITI DI BERGAMO
Tel. 800 88.33.00

CENTRO ANTIVELENI FIRENZE -AZIENDA OSPEDALIERA CAREGGI
Tel. 055.7947819

CENTRO ANTIVELENI FOGGIA - AZIENDA OSPEDALIERO UNIVERSITARIA DI FOGGIA
Tel.0881.732326

CENTRO ANTIVELENI MILANO - OSPEDALE NIGUARDA CA' GRANDA
Tel. 02.66101029

CENTRO ANTIVELENI NAPOLI - AZIENDA OSPEDALIERA CARDARELLI
Tel. 081.7472870

CENTRO ANTIVELENI PAVIA - FONDAZIONE SALVATORE MAUGERI
Tel. 0382.24444

2 HAZARDS IDENTIFICATION

Classification of cosmetic product

The mixture is an hair spray for hair and falls into the category of cosmetics, however it is into a container under pressure and so the product falls into the category of aerosols.
• Classification system: The classification is based on the directives: 75 / 324CE - 94/1 EC - 2008 / 47CE (aerosol) - EU 2013/10, and on the following regulations: Regulation 807/2003 CE
Regulation 1223 / 2009CE

GHS02 flame
Signal Word: DANGER
Flam. Aerosol 1, H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.

Label elements

DANGER
H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.
P251: Do not pierce or burn, even after use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211: Do not spray on an open flame or other ignition source.
P410 + P412: Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.
P102: Keep out of reach of children.
P261: Avoid breathing spray
Do not spray in eyes

INGREDIENTS (INCI): Alcohol Denat., Butane, Propane, Isobutane, Acrylates/t-Butylacrylamide Copolymer, Isopropyl Myristate, Propylene Glycol, Aminomethyl Propanol, PEG-12 Dimethicone, Argania Spinosa Kernel Oil, Parfum (Fragrance), Amyl Cinnamal.

Other hazards: The mixture contains substances considered PBT (persistent, bioaccumulative and toxic) and / or very persistent and very bioaccumulative vPvB) in Annex XIII of Regulation 1907 / 2006CE (REACH).

3 COMPOSITION / INFORMATION ON INGREDIENTS

- 50%-60% Ethyl alcohol - Alcohol Denat. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157): 10%-15%
Regulation (EC) No. 1272/2008 (CLP):
GHS02, Flam. Liq. 2, H225 Highly flammable liquid and vapour.
GHS07, Eye Irrit,2, H319 Causes serious eye irritation.

- 35%-45% Mixture of following substances (variable composition):

- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx): 40%-75%**

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx): 15%-35%**

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx):**

4%-35%

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

Full text of hazard symbols and H-phrases of the ingredients are listed in section 16.

4 FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation:	In case of illness take away from the contaminated area, if breathing is irregular or stops, make artificial respiration. Do not give drinks or medications to the patient. If the person is unconscious, take the position and seek medical advice.
Eye contact:	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical attention if necessary
Skin contact:	Wash with water. If irritation persists, seek medical advice.
Ingestion:	If you were to verify the ingestion, do not induce vomiting, in order to avoid the risk of aspiration of the product into the trachea, with possible pulmonary congestion. Keep at rest. Seek medical advice.

4.2 Most important symptoms of both acute and delayed: not available

4.3. Indication of any immediate medical attention and special treatment: not available

5 FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media:	Fire extinguishers, powder or foam.
Unsuitable extinguishing media:	Do not use water jet. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.
5.2 Special hazards arising from the substance or mixture:	Excess pressure may form in containers exposed to fire at a risk of explosion. Avoid to breathe combustion products (carbon oxide, toxic pyrolysis products, etc.).
5.3 Advice for firefighters:	Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Keep containers cool by spraying with water if exposed to fire. Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), self-respirator (self-protector).

6 MEASURES IN CASE OF ACCIDENTAL RELEASE

6.1 Personal precautions:	Eliminate all sources of ignition (cigarettes, flames, sparks, etc.). Before cleaning any spill or leak, individual involved in a spill cleanup must wear appropriate Personal Protective Equipment. Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills. For information on risks for the environment and health, protection of the respiratory airways, ventilation and individual protective measures refer to the other sections of this sheet.
6.2 Environmental precautions:	Do not discharge into drains/surface waters/groundwater
6.3 Methods and materials for containment and cleaning up:	**Small Spills:** Wear appropriate protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as “speed dry” to soak up material. Sweep up material using non-sparkling materials (e.g,. plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. **Large Spills:** Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. The disposal of contaminated material must be made in accordance with point 13.
6.4 Reference to other sections:	See also section. 8 and13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling:	Do not eat, drink or smoke when handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.
7.2 Conditions for safe storage, including any incompatibilities:	Keep containers upright and in secure position in order to avoid falls or collisions. Protect from sunlight, heat sources and do not keep at temperatures above 50 ° C. Keep away from oxidising agents and strong acid or alkaline products. Store in places intended for flammable products, with appropriate ventilation and electrical system. The product can accumulate electrostatical charges.
7.3 Specific end uses:	not provided

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters: Data refer to the individual ingredients listed in section 3:

Mixture of following substances (variable composition):

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx)**
- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx)**
- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx)**

Dangerous concentrations by professional inhalation are provided by ACGIH TLV 2010 tables as follows:
TLV TWA Average weighted concentration for working day of 8 hours (chronic exposure) to which almost all workers may be repeatedly exposed day after day without adverse effects:
Alkanes C1-C4: 1000 ppm
ACGIH also recommended that the exposure limit values of biologically inert particles, without a value TLV, is maintained below 3 mg / m^3 for the respirable particles; to below 10 mg / m^3 for the inhalable.
For monitoring / control conditions, it is suggested to refer to the current legislation.

Values DNEL (Derived Non Effect) and DMEL (Derived Minimum Effect Level):
Not derived in that the mixture contains no hazardous components for the health.
It is suggested to stick to the values according to the above exposure limits for all applications.
(Refer to Section 15)

Values PNEC (S) (Predicted No Effect Concentration):
PNEC values in water (continuous release):
Not derived as the mixture does not contain hazardous components for the environment
PNEC values in water (intermittent release):
Not derived because the mixture does not contain hazardous components for the environment
PNEC values in soil
Not derived because the mixture does not contain hazardous components for the environment
PNEC values for sedimentation:
Not derived because the mixture does not contain hazardous components for the environment
PNEC values in sewage treatment plants:
Not derived because the mixture does not contain hazardous components for the environment

(Source: ECHA - MSDS of substance)

ETHYL ALCOHOL - ALCOHOL DENAT. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157):

TLWV / TWA: 1880mg / m3 (1000 ppm)
Inhalation DNEL (short term, local): 1900mg / m3 (1000ppm)
Inhalation DNEL (long-term, systemic): 950mg / m3 (500ppm)
Contact DNEL (long-term, systemic): 343mg / kgbw / day
Source: IUCLID section 7 general summary.
PNEC aqua (freshwater): 0.96mg / l
PNEC aqua (sea water): 0.79mg / l
PNEC aqua (intermittent releases): 2.75mg / l
PNEC STP: 580mg / l
PNEC sediment (fresh water): 3.6mg / kgdw
PNEC sediment (sea water): 2.9mg / kgdw
PNEC soil: 0.63 mg / kgdw
PNEC oral: 0.38g / kg food

(Source: ECHA - MSDS of this substance)

8.2 personal and environmental exposure control:

Respiratory protection: not necessary, however, if the operating conditions require it (in case of very long use of the product), use a suitable mask for organic solvents.

Hand protection:	For prolonged use of this product, use protective gloves to work Category I (EN 374) as latex, PVC or equivalent. For the final choice of work glove material must be considered: degradation, breakage times and permeation. The gloves have a limit depends on the duration of exposure.
Eye protection:	Not necessary, however, in case of prolonged use of this product, use eye protection. (Ref. Standard EN 166).
Skin protection:	Use antistatic clothing, preferably in natural fibers. After contact with the product, all skin wetted parts must be washed.
Thermal hazards:	not available
Environmental exposure controls:	avoid littering

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 General informations:

- appearance:	colorless liquid under pressure (aerosol)
- odour:	alcoholic/ fruity scented (banana-melon)

9.2 Important information on health, safety and the environment:

- pH	not applicable
- Melting point / freezing point:	not available
- Point / boiling range:	not available
- Flash point:	From -104 ° C to -80 ° C (propellant)
- Flammability (solid, gas):	extremely flammable
- Upper / lower flammability limits:	Lim. Inf. 1.8% - Sup. 9.5% vol / vol in the air (propellant)
- Explosive properties:	not available
- Oxidizing properties:	not available
- Vapor pressure:	not available
- relative density:	0.61-0.63 (theoretical value of the mixture liquid + propellant) 0.80 - 0.82 (liquid without propellant)
- Solubility:	
- Water solubility:	partially soluble
- Fat solubility (n-hexane):	partially soluble
- Partition coefficient: (N-octanol / water)	not available
- viscosities	not available
- Vapor density:	not available
- Evaporation rate:	not available
- Auto-ignition temperature	from 400 to 490 ° C (propellant)
- Decomposition temperature	not available
9.3 Further information:	VOC (Directive 1999/13 / EC): 93.4% (w / w) – 572 g/l

10 STABILITY AND REACTIVITY

10.1 Reactivity	See sec. 10.4 and 10.6
10.2 chemical stability	The product is stable if properly stored.
10.3 Possibility of hazardous reactions	See sec. 10.5
10.4 Conditions to avoid:	The aerosol containers overheated to temperatures exceeding 50 ° C., They may deform, burst and be thrown to considerable distances. The

		preparation is stable at the handling and storage conditions recommended in paragraph HANDLING AND STORAGE. Avoid overheating, electrostatic discharge and all ignition sources. Avoid exposure to sources of heat and open flames.
10.5	Incompatible materials:	Keep away from oxidizing agents, chemicals or basic products, in order to avoid corrosion of the container.
10.6	Hazardous decomposition products:	When heated or in case of fire, potentially vapours dangerous to health can be released

11 TOXICOLOGICAL INFORMATION

ATE MIX (oral) >2000 mg/l (calculated)

Acute toxicity Ingestion: Product ingestion is an unlikely event. Any ingestion causes irritation to gastrointeric tract. Other symptoms may be nausea, vomiting.
Acute inhalation toxicity: inhalation of this product is an individual low probability event.
Contact with the skin: the product is a cosmetic suitable for contact with the skin. People allergic to one of the substances listed in INGREDIENTS may have redness
Eye contact: Irritation with redness and tearing phenomena

TOXICITY INFORMATION OF INGREDIENTS INDICATED IN SECTION 3:

Mixture of following substances (variable composition):

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx)**
- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx)**
- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx)**

INFORMATION ON TOXICOLOGICAL EFFECTS
Literature data concerning the toxicokinetic studies about the short chain alkanes (C1-C4), show how these alkanes exist in the vapor form at room temperature, and they are poorly absorbed. If the exposure involves an absorption (situation of higher concentrations), the latter would not be particularly relevant: there is little evidence of metabolism, as such mixture if it were absorbed, would normally be quickly exhaled.
In addition the studies, it would appear that the absorption tends to increase with increasing molecular weight. Unbranched molecules would be more easily absorbed than those branched and the aromatic molecules would be more easily absorbed than paraffin.
The main toxicological studies have been performed on rats.

ACUTE TOXICITY
The mixture at room temperature and atmospheric pressure, is presented as a colorless gas.
Consequently the information relating to acute toxicity by the oral and inhalation are not particularly relevant.

ACUTE ORAL TOXICITY
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture comes to a gaseous state at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

ACUTE INHALATION TOXICITY
The vapors may cause narcotic effects.
High inhaled air concentrations can lead to unconsciousness and asphyxiation from lack of oxygen.
For propane:
Key study propane:
LC50 rat (male / female) [15 minutes]: 800000 ppm
LC50 rat (male / female) [15 minutes]: 14442738 mg / m3
LC50 rat (male / female) [15 minutes]: 1443 mg / L
[Source: DG Clark and Tiston DJ (1982)]

Isobutane
Key study isobutane
LC50 rat (male) [2 hours] Gas Phase: 520400 ppm

[Source: Aviado (1982)]
Butane
rat LC50 [inhalation]: 658 mg / l 4 h (literature value)
No labeling required - related to substance: Butane
human studies [general population] have shown that the smell is not detectable below 20000 ppm (2%) and a concentration of 100,000 ppm (10%) has produced mild irritation to eyes, nose and respiratory tract but caused slight dizziness within a few minutes [evidenze_Anon weight of 198, Herman (Chairman 1966)

ACUTE DERMAL TOXICITY
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

CORROSION / IRRITATION
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns.

SERIOUS EYE DAMAGE / SERIOUS EYE IRRITATION
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted becasuse the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns.

RESPIRATORY OR SKIN SENSITIZATION
Respiratory sensitization: there are no studies that indicate this type of effect
Skin sensitization: according to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns

GERM CELL MUTAGENICITY
Experiments in vitro and on animals, we do not tell no evidence genotoxicity. Moreover the mixture may contain as an impurity 1,3-butadiene in a concentration of less than 0.1%; consequently it is not classified mutagenic in accordance with legislation on hazardous substances.

Information regarding propane
Genetic toxicity in vitro - Key study propane
Ames test in Salmonella typhimurium [OECD 471]
No evidence of mutagenic effects
Metabolic activation: ao no
Method: Mutagenicity (Salmonella tiphymurium - wise reversion)
[Source: Kirwin CJ Thomas and WC (1980)]

Information concerning the Liquefied Petroleum Gas [LPG Key study]
Test in vivo
Micronucleus test: rats - inhalation - [OECD Guideline 474]
Result: negative
[Source: Huntingdon Life Sciences (HLS), 2009b]

Carcinogenicity
There is no indication or evidence of carcinogenicity. The present state of knowledge, the test results for mutagenicity and toxicity with repeated administration, we should not expect a carcinogenic effect. Moreover the mixture may contain as an impurity 1,3-butadiene in a concentration of less than 0.1%; consequently it is not classified carcinogenic according to the Dangerous Substances legislation.

TOXIC TO REPRODUCTION
Reproductive toxicity
Literature data revealed no consistent evidence of toxicity for fertility; therefore the mixture is not classified as toxic for reproduction according to the Dangerous Substances legislation.
Here are the information about the individual substances in the mixture:

For propane:
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily

NOAEL (No Observed Adverse Effect Level) Parents: 21641 mg / L
NOAEL F1: 21,641 mg / L
Method: OECD Test Guideline 422
In animal studies (422 OECD, research screening) There were no effects that harm foetuses clues

Isobutane:
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) parents: 7,131 mg / L
NOAEL F1: 21,394 mg / L
Method: OECD Test Guideline 422

Butane:
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L
NOAEL F1: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there have been no indications of effects that harm foetuses.
Information concerning the Liquefied Petroleum Gas [LPG Key study]
in vivo study
Rat - Inhalation Exposure 13 wk., 6h / g., 5g / wk.
OECD Guideline413 EPA OPPTS870.4365 (90-
NOAEC: 10000 ppm
(M / F) no effect on the menstrual cycle, spermatogenesis, mobility and sperm count
Source: Huntingdon Life Sciences (HLS), 2009b]

Developmental Toxicity / Teratogenicity
The literature data did not reveal consistent evidence of developmental toxicity / teratogenicity: the main impurities in the mixture indicate that it is not classified as toxic for reproduction under the legislation on hazardous substances.
Here is information on the individual substances in the mixture

For propane
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21641 mg / L
NOAEL F1: 21,641 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication of effects about harm on foetuses.

Isobutane:
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L
NOAEL maternal: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication about damage on development.

For butane
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L
NOAEL maternal: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication about damage on development.

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE
No information

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE
Oral
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with

any significant concentrations in tests.

Cutaneous
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. It is extremely volatile and flammable at room temperature and it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

Inhalation
Literature data showed no consistent evidence due to inhalation: Literature data about inhalation showed no consistent evidence: the mixture with the main impurities is not classified it as toxic according to the Dangerous Substances legislation

Here are the information about the individual substances in the mixture

propane
From studies conducted for a period of 6 weeks old on male and female rats they were not observed neurological, hematologic or clinical effects. At doses of 12,000 ppm for male animals showed a 25% decrease in weight during the first week of exposure.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is 12,000 ppm (equivalent to 21 641 mg / m3).

Isobutane
From studies conducted for a period of 6 weeks old on male and female rats they were not observed neurological, hematologic or clinical effects.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is of 21,394 mg / L [OECD TG 422] method.

Butane
From studies conducted for a period of 6 weeks on male and female rats they were not observed neurological, hematologic or clinical effects.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is of 21,394 mg / L [OECD TG 422] method.
The vapors may cause narcotic effects
High concentrations in the air inhaled can lead to unconsciousness and asphyxiation due to lack of oxygen.

DANGER ASPIRATION
Not applicable. The mixture at room temperature and atmospheric pressure, is a colourless gas.

FURTHER INFORMATION
Under normal conditions of use, the mixture can be used in safety according to the above. However, the deliberate abuse of high concentrations of vapor, even for short periods, may result in unconsciousness or prove fatal.

ETHYL ALCOHOL - ALCOHOL DENAT. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157):

Acute Oral Toxicity (OECD401 equivalent): LD50 Rat: 6.2 - 15g / kgbw
For Inhalation (OECD403 equivalent): Rat LC50 (4hr)> 50mg / l
Dermal: Data not available.
Available data indicate that this is not classifiable.
Source IUCLID 7.2 Chapter summary.

Corrosion / irritation
All acute exposure studies available 4-hour show that is not irritating nor animal (OECD404 or equivalent) nor on men. In humans, studies of repeated doses show that there are no irritation following repeated applications on a whole day under occlusive conditions for a maximum of 12 days. Additional exposures cause irritation if necessary.
The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.3 Chapter summary.

Serious eye damage / eye irritation
Studies carried out in accordance with OECD Guideline 405 show that causes moderate eye irritation.
All effects disappear in 8-14 days. The type of response is not sufficient to place the substance in accordance with Directive 67/548 but it is sufficient, in terms of conjunctival response, to place the substance in irritant category 2 under Regulation 1272/2008.
Source IUCLID 7.3 Chapter Summary

respiratory or skin sensitization study of swelling rat: negative
Local Lymph Node Assay (OECD429): Negative
Cavia higher education: (OECD406) Negative
respiratory sensitization: Data not available
The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.4 Chapter Summary

Germ cell mutagenicity studies on bacterial reverse mutation
(OECD471): all negative
In vitro cytogenetic studies (eg OECD473): Negative without metabolic activation. No studies with metabolic activation
In vitro gene mutation studies on mammals (efOECD476): negative with and without metabolic activation

In vivo micro nucleic acid testing (OECD474): there are no comprehensive evidence showing that ethanol cause micronuclei in the bone marrow
In vivo chromosomal aberration test (OECD475): negative.
dominant lethal essay (OECD478): it is unlikely that ethanol produces effects until the maximum tolerated dose. There is some evidence from in vitro studies, that ethanol can cause genotoxic and clastogenic effects. However the observed effects are weak and need only at very high doses. The conclusion of the evidence is that ethanol is not genotoxic. The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.6 Chapter Summary

Carcinogenicity Rat: NOAEL> 3000 mg / kg
Cats: female NOAEL> 4400mg / kg, male
NOAEL> 4250mg / kg based on historical control data, BMDL10 = 1400mg / kg based on concurrent control data.
Source IUCLID 7.7 Chapter Summary
In humans, the consumption of alcoholic beverages is associated with an increased incidence of certain cancers. There is no evidence that human exposure to ethanol, unlike the repeated consumption of alcoholic beverages, highlighting an increase in the incidence of tumors. The available data indicate that they are not satisfied with the classification criteria.
Reproductive toxicity FERTILITY ':
NOAEL (oral, rat) = 13.8g / kg (OECD416 equiv.))
NOAEC (inhalation, rat)> 16,000ppm
Developmental toxicity (OECD414 equiv):
NOAEL (oral) = 5.2g / kgbw / day
NOAEC (inhalation) = 39mg / l.
Source IUCLID 7.8 Chapter Summary

In humans, excessive consumption of alcohol during pregnancy is associated with induction of fetal alcohol syndrome in the offspring, causing reduction in the birth weight and sometimes physical and mental defects. There is no evidence that these effects can be caused by exposure if not the direct ingestion of alcoholic beverages. The concentration of ethanol in the blood resulting from any exposure to ethanol different from deliberate and repeated oral consumption is unlikely to achieve associable levels for reproductive effects or development. From the available data it can be concluded that it is impossible to reach doses of ethanol that can produce adverse reproductive effects if not caused by oral consumption of large quantities, doses normally only associated with an alcohol problem, it follows that a classification of reproductive toxicity or developmental which chemical is neither appropriate nor justified.
Partial source IUCLID section 7.8 Summary

specific target organ toxicity (STOT) - single exposure
No observed effect on the target organs for single exposure

specific target organ toxicity (STOT) - repeated exposure
In studies of chronic under-nutrition or drinking water in rats, NOAELs ranges from 1.73g / kg to 3.9g / kg.
The most sensitive effects on these doses appear to be in the male kidney. Effects appear only at doses far above the levels that require classification.
Source IUCLID 7.5 Chapter Summary

Danger Aspiration no dangers Aspiration
Toxicokinetics In humans, the ethanol is rapidly absorbed by the oral or respiratory route, it is distributed through all the tissues and organs and is rapidly metabolized and excreted. For inhalation exposures at the workplace, alcohol dehydrogens through metabolic pathway in the liver without saturating. Ethanol does not accumulate in the body.
The cutaneous absorption of ethanol is very low.
Information on likely routes of exposure Inhalation is the most likely route of exposure during normal use. The dermal absorption is likely only with prolonged exposure and occluded places. The substance is normally absorbed by ingestion.

Symptoms related to the physical, chemical and toxicological
Ingestion: Swallowing may have the following effects:
depression of the central nervous system, nausea / vomiting, symptoms similar to intoxication by alcohol
Inhalation: Inhalation of high concentrations of vapor may cause temporary respiratory irritation, headaches, nausea.
Chronic effects Chronic effects not expected.

12 ECOLOGICAL INFORMATION

12.1 ecotoxicity:

Mixture of following substances (variable composition):

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx)**
- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx)**
- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx)**

Toxicity
current data related to the aquatic toxicity showed no evidence of toxicity phenomena from an ecological point of view and the PNEC (S) were not derived for freshwater, marine water, sediment and soil.

Toxicity for fish
Butane:
LC50 (96h): 24.11 mg/l (Key study butane Fish - Short term QSAR EPA 2008)

Toxicity to daphnia
Butane:
LC50 (48h): 14.22 mg/l (Key study butane Daphnia - Short-term USEPA OPP 2008)
Toxicity to Algae
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena (They're improbable because of the volatility)

Toxicity to bacteria
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena (They're improbable because of the volatility)

Propane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: with or without
Method: Mutagenicity (Salmonella typhimurium - wise reversion)

Isobutane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: S-9 rat liver mix
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) reported to isobutene

Butane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: with or without
Method: Mutagenicity (Salmonella typhimurium - wise reversion)
chromosome aberration in vitro human lymphocytes
not clastogenic

Metabolic activation: with or without
Method: OECD Test Guideline 473

Toxicity to living organisms in the soil
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena (They're improbable because of the volatility)

Toxicity to terrestrial plants
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no (They're improbable because of the volatility)

ETHYL ALCOHOL - ALCOHOL DENAT.(N°CAS 64-17-5; N°EINECS 200-578-6; N°REACH 01-2119457610-43-0157):

FISH
LC50 (96hr) Salmo gairdneri: 13g/l; Pimephales promelas: 13.5, 14.2 and 15.3g/l.
FRESHWATER INVERTEBRATES
EC50 (48hr) Daphnia Magna: 12.34g/l; NOEC (Reproduction, 21 days): >10mg/l. Ceriodaphnia dubia: EC50 (48hrs): 5.012g/l;
NOEC (Reproduction, 10 days): 9.6mg/l.
Palaemonetes pugio NOEC (Development , 10 days): 79mg/l.

INVERTEBRATES IN SALT WATER
EC50 (24hr) Artemia salina 23.9, >10g/l;
EC50 (48hr) Artemia salina nauplii: 857mg/l

SEAWEED:
Chlorella vulgaris, 72hr: EC50 275mg/l, EC10 11.5mg/l;
Selenastrum capricornutum, 72hr, EC50: 12.9g/l, EC10=0.44g/l;
Chlamydomonas eugametos, 48hr, EC50: 18g/l, NOEC=7.9g/l
Skeletonema costatum, NOEC (5 days): 3.24g/l.

12.2 Furniture:	Data not available
12.3 Persistence and degradability:	Data not available.
12.4 Potential to accumulate:	Data not available, the individual ingredients are not bioaccumulative.
12.5 Results of PBT and vPvB	No PBT or vPvB (evaluation based on individual ingredients)
12.6 Other adverse effects:	not provided

13 DISPOSAL CONSIDERATIONS

The product must not be disposed of with household waste. Do not empty into drains. Disposal of the product must be in compliance with national laws. CONTAINERS not completely empty must be brought to a authorized disposal equip to recover the metal container containing flammable gas.

14 TRANSPORT INFORMATION

Road / rail transport ADR / RID (cross-border)
- ADR / RID-GGVS / E: 2 5F Gases
- Kemler Number: -
- UN-Number: 1950
- Packaging group: -
- Label: 2.1
- Description of goods: 1950 AEROSOLS
- Limited quantity (LQ) 1L
- the Tunnel restriction code D

- **Maritime transport IMDG:**
- IMDG Class: 2.1
- UN-Number: 1950
- Label 2.1
- Packaging group: -

• EMS Number: F-D, S-U
• Marine pollutant: no
• Proper shipping name: AEROSOLS

• **Air transport ICAO-TI and IATA-DGR:**
• ICAO / IATA: 2.1
• UN / ID Number: 1950
• Label 2.1
• Packaging group: -
• Correct technical name: AEROSOLS, flammable

15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations, legislation specific for the substance or mixture:

REGULATION (EC) No. 1223/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 November 2009 on cosmetic products.

Statement Aerosol
Directives: 75 / 324CE - 94/1 EC - 2008 / 47CE - 2013/10 EU
Regulation EC 807/2003
Regulation EC 219/2009

Regulation 1907/2006 / EC (REACH).
Regulation 1272/2008 / EC (CLP) X ATP
Regulation UE 830/2015
D. lgs. April 9, 2008, n. 81 ACT ON HEALTH AND SAFETY AT WORK (Italy)

This is not an exhaustive list.

15.2 Chemical Safety Assessment Not applicable

16 FURTHER INFORMATION

Hazard symbols and full text of H-phrases of section 3 of the MSDS for the individual components:

GHS02: flame symbol
Flam. Liq. 2: Flammable liquid Category 2
H225 – Highly flammable liquid and vapour.
Flam. Gas 1: Flammable gas Category 1
H220 Extremely flammable gas

GHS04: gas cylinder symbol
Press. Gas: Gas under pressure
H280 Contains gas under pressure, may explode if heated.

GHS07: Exclamation mark symbol
Eye Irrit.2: Eye irritation, category 2
H319: Causes serious eye irritation.

MSDS / Information cosmetic sheet V1.1 01/10/2019. With respect to version 1.0, points 3 and 16 have been modified.

Previous versions
MSDS / Information cosmetic sheet V1.0 27/09/2019

ABBREVIATIONS and ACRONYMS:

ACGIH = American Conference of Governmental Industrial Hygienists
CSR = Chemical Safety Report
DNEL = Derived No Effect
DMEL = Derived Minimum Effect Level
EC50 = Effective Concentration median
IC50 = inhibitory concentration, 50%
Klimisch = Evaluation criterion for the reliability (reliability) of the method used
LC50 = Lethal concentration, 50%
LD50 = Lethal Dose Media
PNEC = Expected Non Effect Concentration
N.A. = Not applicable
n.d. = Not available
Substance PBT = Persistent, Bioaccumulative and Toxic
CNS = central nervous system
= STOT specific target organ toxicity
(STOT) RE Repeated Exposure =
(STOT) SE = Single exposure
Key study = study of greatest relevance
TLV®TWA = Threshold Limit Value - Time Weighted Average
TLV®STEL = Threshold Limit Value - for a short time exposure limit
UVCB = substance from the composition is not known and variable (substances of Unknown or Variable composition)
vPvB = very Persistent and very Bioaccumulative
P = Persistent

SAFETY DATA SHEET

HD Life Style SMOOTH and PROTECT SPRAY 300ml

SECTION1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code : LISS&SPARKLING SPRAY 300ML
Trades code : 100523

1.2. Relevant identified uses of the substance or mixture and uses advised against

Cosmetic Product
Sectors of use:
Private households (= general public = consumers)[SU21], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

FARMAVITA s.r.l.
Via Garibaldi 82/84
20020 Locate Varesino (Como)
Tel.: 0331833467 Fax: 0331-833827
Email: info@farmavita.it
Sito: www.farmavita.it

Persona competente responsabile della scheda di dati di sicurezza: tecnico@farmavita.it

1.4. Emergency telephone number

Centro Antiveleni Ospedale Riuniti (BG) - 800.883300 24 ore su 24

SECTION2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:
GHS02

Hazard Class and Category Code(s):
Flam. Aerosol 2

Hazard statement Code(s):
H223 - Flammable aerosol.
H229 - Pressurised container: May burst if heated.

Flammable aerosols, fire risk
The repeated inhalation of vapors can cause drowsiness and giddiness.
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 ° C.
The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
GHS02 - Warning

Hazard statement Code(s):
H223 - Flammable aerosol.
H229 - Pressurised container: May burst if heated.

Supplemental Hazard statement Code(s):
not applicable

Precautionary
statements: General
P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
Prevention
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
Storage
P410+P412 - Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.

2.3. Other hazards

The substance / mixture does NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

No information on other hazards

SECTION3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements
Petroleum gas contains less than 0,1 % w/w 1,3-butadiene (EINECS No 203-450-8)

Substance	Concentration	Classification	Index	CAS	EINECS	REACh
Petroleum gas	> 50 <= 100%	Flam. Gas 1, H220; Liq. Gas, H280	649-199-00-1	68476-40-4	200-681-4	01-2119486557-22
ethanol	> 20 <= 30%	Flam. Liq. 2, H225; Eye Irrit. 2, H319	603-002-00-5	64-17-5	200-578-6	01-2119457610-43

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product).:
Wash thoroughly with soap and running water.

Direct contact with eyes (of the pure product).:
Wash immediately and thorougly with running water for at least 10 minutes.

Ingestion:
Not hazardous. It's possible to give activated charcoal in water or liquid paraffin medicine

4.2. Most important symptoms and effects, both acute and delayed

The repeated inhalation of vapors can cause drowsiness and giddiness.

4.3. Indication of any immediate medical attention and special treatment needed

If you experience harmful symptoms, contact a physician immediately.

SECTION5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
CO2 or dry powder extinguisher

Extinguishing means to avoid:
Direct jets of water

5.2. Special hazards arising from the substance or mixture

The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.
Manufactured under pressure in sealed metal container (test pressure 15 bar max). Cool containers with water spray trying to remove them from the fire. The aerosol containers can be overheated and burst violently ejected from a distance (protect the head using a safety helmet).

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Leave the area surrounding the spill or release. Do not smoke
Leave the surrounding area recalling that any overheating could project the cylinder at a considerable distance. Wear gloves and protective clothing

6.1.2 For emergency responders:
Given the tightness of aerosol, it is unlikely that the spillage may occur.
However if some container is damaged likely to cause a loss, insulate the tank in question by bringing it to open air or covering it with inert material and fuel (eg sand, earth, vermiculite) and having the care to avoid any point of ignition that might pose a serious risk of fire.
Wear gloves and protective clothing
Eliminate all unguarded flames and possible sources of ignition. No smoking. Provision of sufficient ventilation.
Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill
Inform the competent authorities.
Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Recover the product for reuse, if possible, or the removal.

6.3.2 For cleaning up:
After wiping up, wash with water the area and materials involved

6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors
Use extreme caution when handling the product. Avoid shock or friction.
Do not smoke at work
At work do not eat or drink.
Vapors are heavier than air and may spread close to the ground and form explosive mixtures with air. Prevent formation of flammable or explosive concentrations in the air.
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 ° C.
Do not pierce or burn, even after the use. Do not spray on flame or incandescent objects. Use in adequately ventilated areas.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Pressurized container. Store in a ventilated place, in original packaging away from heat and sunlight. Keep away from open flames, sparks and heat sources. Avoid direct sunlight exposure.

7.3. Specific end use(s)

Private households (= general public = consumers):
Store in cool and dry places.

Public domain (administration, education, entertainment, services, craftsmen):
Handle with care.
Store in ventilated place away from heat sources,
Keep the container tightly closed.

SECTION8. Exposure controls/personal protection

8.1. Control parameters

No data available on the mixture.

Related to contained substances:

Petroleum gas:
DNEL, inhalation, long term, systemic effects, workers: 2.21 mg/m3

DNEL, dermal, long term, systemic effects, workers: 23.4 mg/kg bw/day
DNEL, inhalation, long term, systemic effects, population: 0.0664 mg/m3

ethanol:
ACGIH TLV-TWA/8:0 1000 mg/m3
DNEL DNEL
(OTH)
Inhalation (in short, local): 1900 mg/m3 (1000 ppm)
Inhalation (long-term, systemic): 950 mg/m3 (500
ppm) Cutis (long-term, systemic): 343 mg/kgbw/day
PNEC PNEC
(OTH)
Fresh water: 096 mg/l
Sea water: 0.79 mg/l
Freshwater sediments: 3.6
mg/kgdw Sea water sediments: 2.9
mg/kgdw Soil: 0.63 mg/kgdw
oral: 0.72 g/kg food

8.2. Exposure controls

Appropriate engineering controls:
Private households (= general public = consumers):
Open with caution. Close the container immediately after its use.
Adopt the appropriate protective measures.

Public domain (administration, education, entertainment, services, craftsmen):
Open with caution. Close the container immediately after its use.
Adopt the appropriate protective measures.

Individual protection measures:

(a) Eye / face protection
When handling the pure product use safety glasses (spectacles cage) (EN 166).

(b) Skin protection

(i) Hand protection
When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

(ii) Other
When handling the pure product wear full protective skin
clothing. Better is to use cotton antistatic clothing

(c) Respiratory protection
Work in a sufficiently ventilated to avoid inhaling the product.

(d) Thermal hazards
No hazard to report

Environmental exposure controls:
Use according to good working practices to avoid pollution into the environment.

SECTION9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Pressure vessel with base and liquefied gas	
Odour	characteristic	
Odour threshold	not determined	
pH	not determined	
Melting point/freezing point	not determined	
Initial boiling point and boiling range	Data not available	
Flash point	not determined	ASTM D92
Evaporation rate	irrelevant	
Flammability (solid, gas)	Data not available	
Upper/lower flammability or explosive limits	not determined	
Vapour pressure	This property is not suitable for safety and product classification	
Vapour density	This property is not suitable for safety and product classification	
Relative density	not determined	
Solubility	in water	
Water solubility	Yes	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	not determined	
Decomposition temperature	not determined	
Viscosity	not determined	
Explosive properties	not explosive	
Oxidising properties	non-oxidizing	
Container volume	405 ml	
Product volume	300 ml	
Pressure to 20°C	not determined	
Deformation pressure	not determined	
Burst pressure of the container	not determined	
Flash point of liquid phase	not determined	
Propellant inflammability	less than 0 C	

9.2. Other information

No data available.

SECTION10. Stability and reactivity

10.1. Reactivity

Related to contained substances:
ethanol:
The product is stable under normal conditions of use and storage.

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Take precautionary measures against static discharges.
The aerosol product is stable for a period of more than 36 months and under normal storage conditions may not be dangerous reactions because the container is hermetically sealed.
Avoid contact with oxidizing materials. The product may
ignite. Avoid heat, open flames, sparks and hot surfaces.
In order to avoid that the metal of the container can deteriorate, keep away from acid reaction products or basica. Attention to heat because at temperatures exceeding 50 °C there is an increase in pressure inside the container such as to reach the deformation of the tank until the outbreak.

10.5. Incompatible materials

Incandescent bodies, oxidizing materials.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION11. Toxicological information

11.1. Information on toxicological effects

No toxicological tests have been performed on the mixture.

(a) acute toxicity: based on available data, the classification criteria are not met.
(b) skin corrosion/irritationbased on available data, the classification criteria are not met.
(c) serious eye damage/irritation: based on available data, the classification criteria are not met.
(d) respiratory or skin sensitization: based on available data, the classification criteria are not met.
(e) germ cell mutagenicity: based on available data, the classification criteria are not met.
(f) carcinogenicity: based on available data, the classification criteria are not met.
(g) reproductive toxicity: based on available data, the classification criteria are not met.
(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
(i) specific target organ toxicity (STOT) repeated exposurebased on available data, the classification criteria are not met.
(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:

Petroleum
gas: Toxicity:
Not-toxic but simple suffocating. Gaseous state has no effect on the skin and mucous membranes. The vapours may cause narcotic effects.
Irritating power:
The contact of the liquid product on the skin causes cold sores.
There is no evidence relating to the following effects: Chronic toxicity - Sensitization - Mutagenesis - Teratogenesis - Carcinogenesis.

ethanol:

LD50 (Oral): 1501 mg/kg Rat
LC50 (Inhalation): 5.9 mg/l/6:0 Rat
LD50 (rat) Oral (mg/kg body weight) = 1501
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 20000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5,9

SECTION12. Ecological information

12.1. Toxicity

The product has not been tested for environmental impact in the event of accidental release in the environment.

Related to contained substances:

Petroleum gas:
Toxicity to fish, LC50, 96h: 24.11 mg/l
Toxicity to Daphnia, LC50, 48h: 14.22 mg/l
Toxicity to algae, EC50, 96h: 7.71 mg/l
C(E)L50 (mg/l) = 7,71

ethanol:
Specification: NOEC.
Skeletonema costatum: parameter.
Value: 3.24 grams per litre.
Test period: 5 g.
Specification: NOEC.
Parameter: Daphnia
magna. Value: > 10 mg/l.
Test period: 21 g.
Specification: EC10.
Parameter: Algae.
chlorella vulgaris.
Value: 11.5 mg/l.
Specification: EC10.
Parameter: Selenastrum
capricornutum. Value: 0.44 g/l.
Specification: EC50.
Parameter: Algae.
chlorella vulgaris.
Value: 275 mg/l. Test
period: 72 h.
Specification: EC50.
Parameter: Selenastrum
capricornutum. Value: 12.9 g/l.
Test period: 72 h.
Specification: LC50.
Parameter: Fish.
Salmo gairdneri.
Value: 13 g/l.
Test period: 96 h.
Specification: LC50.
Parameter: Fish.
Pimephales promelas.
Value: 13.5 g/l.
C(E)L50 (mg/l) = 0,44

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

No data available on the mixture.

Related to contained substances:

Petroleum gas:
No data available

ethanol:
No data available

12.3. Bioaccumulative potential

No data available on the mixture.

Related to contained substances:

Petroleum gas:
No data available

ethanol:
There are no known significant phenomena of bioaccumulation.

12.4. Mobility in soil

No data available on the mixture.

Related to contained substances:

Petroleum gas:
No data available

ethanol:
Water solubilit full vaporizzabile in the atmosphere.

12.5. Results of PBT and vPvB assessment

The substance / mixture does NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.6. Other adverse effects

No adverse effects

SECTION13. Disposal considerations

13.1. Waste treatment methods

The waste must be disposed of in compliance with the regulations in force delivering empty containers for final disposal and equipped to safely handle pressurized containers containing flammable liquids and gas waste. The empty container heated to temperatures exceeding 70 ° C can burst.

Recover if possible. Operate according to local or national regulations

SECTION14. Transport information

14.1. UN number

ADR/RID/IMDG/ICAO-IATA: 1950

ADR exemption because compliance with the following characteristics:
Combination packagings: per inner packaging 1 L per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: AEROSOL flammable
ICAO-IATA: AEROSOL flammable

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 2
ADR/RID/IMDG/ICAO-IATA: Label : Onu
ADR: Tunnel restriction code : D
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L
IMDG - EmS : F-D, S-U

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: --

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous
IMDG: Marine polluting agent : Not

14.6. Special precautions for user

The transport must be carried out by authorised vehicles carrying dangerous goods in accordance with the requirements of the current edition of A.D.R Agreement. and the national provisions applicable.
The transport must be carried out in the original packaging and in packages that are made from materials resistant from the content and not likely to generate with this dangerous reactions. Attendants to the loading and unloading of dangerous goods must have received proper training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

It is not intended to carry bulk

SECTION15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 2013/10/UE (Aerosol), Legislative Decree no. 3/2/1997 no. 52 (Classification, packaging and labeling of dangerous substances). Legislative Decree 14.3.2003 n. 65 (Classification, packaging and labeling of dangerous substances). Leg. 02/02/2002 n. 25 (Risks related to chemical agents at work). D.M. Working 26/02/2004 (Occupational exposure limit); DM 04/03/2007 (Implementation of Directive no. 2006/8/EC). Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n.790/2009.D.Lgs. September 21, 2005 n. 238 (Seveso Ter).
Seveso category:
P3a - FLAMMABLE AEROSOLS

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION16. Other information

16.1. Other information

Description of the hazard statements exposed to point 3
H220 = Extremely flammable gas.
H280 = Contains gas under pressure; may explode if heated.
H225 = Highly flammable liquid and vapour.
H319 = Causes serious eye irritation.

Classification based on data of all mixture components

Main normative references:
Regulation 2008/1272/EC
Regulation 2015/830/EC

Link ECHA (source of information on chemical substances produced or imported in Europe)
http://echa.europa.eu/it/information-on chemicals; jsessionid = 63968E9F85F91C26F330FF884618CFFF.live1
MSDS provided by the customer and on the same raw material

*** This Board cancels and replaces any previous edition.

MSDS creation date: 21/06/2016
Revision date: 21/06/2016
Date of print: 22/06/2016

1 IDENTIFICATION OF THE COMPANY

1.1 Mixture / Product identifier: HD MOUSSE

1.2 Relevant identified uses of the mixture: Hair Mousse

The pertinent uses are listed above. Other uses are not recommended.

Uses advised against:

1.3 Distributed by

FARMAVITA s.r.l.
Via Garibaldi 82/84
20020 Locate Varesino (Como)
Tel.: 0331833467 Fax: 0331-833827
Email: info@farmavita.it
Sito: www.farmavita.it

1.4 Emergency telephone:

CENTRO ANTIVELENI ROMA - POLICLINICO A.GEMELLI - UNIVERSITA' CATTOLICA DEL SACRO CUORE Tel. 06.3054343

CENTRO ANTIVELENI BERGAMO - OSPEDALI RIUNITI DI BERGAMO Tel. 800 88.33.00

CENTRO ANTIVELENI FIRENZE -AZIENDA OSPEDALIERA CAREGGI Tel. 055.7947819

CENTRO ANTIVELENI FOGGIA - AZIENDA OSPEDALIERO UNIVERSITARIA DI FOGGIA Tel.0881.732326

CENTRO ANTIVELENI MILANO - OSPEDALE NIGUARDA CA' GRANDA Tel. 02.66101029

CENTRO ANTIVELENI NAPOLI - AZIENDA OSPEDALIERA CARDARELLI Tel. 081.7472870

CENTRO ANTIVELENI PAVIA - FONDAZIONE SALVATORE MAUGERI Tel. 0382.24444

2 HAZARDS IDENTIFICATION

Classification of cosmetic product

The mixture is a mousse for hair and falls into the category of cosmetics, however it is contained in a container under pressure and so the product falls into the category of aerosols.
• Classification system: The classification is based on the directives: 75 / 324CE - 94/1 EC - 2008 / 47CE (aerosol) - EU 2013/10, and on the following regulations: Regulation 807/2003 CE
Regulation 1223 / 2009CE
GHS02 flame
Signal Word: DANGER
Flam. Aerosol 1, H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.

Label elements

DANGER
H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.
P251: Do not pierce or burn, even after use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211: Do not spray on an open flame or other ignition source.
P410 + P412: Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F. P102: Keep out of reach of children.

INGREDIENTS (INCI): Aqua, Butane, VP / VA Copolymer, Propane, Isobutane, Cetrimonium Chloride, Capryly (and) capryl Glucoside, Parfum, PEG / PPG-18/18 Dimethicone, Polyquaternium-10, Polyquaternium-11, Lauramine Oxide, DMDM Hydantoin , PEG-40 Hydrogenated Castor Oil, Argania Spinosa Kernel Oil, Amyl Cinnamal.

Other hazards: The mixture do not contains substances considered PBT (persistent, bioaccumulative and toxic) and / or very persistent and very bioaccumulative vPvB) in Annex XIII of Regulation 1907 / 2006CE (REACH).

3 COMPOSITION / INFORMATION ON INGREDIENTS

MIXTURE OF SUBSTANCES DEFINED AS LIQUEFIED PETROLEUM GAS (LPG) C3-C4 hydrocarbons (CAS N°68476-40-4; EINECS N° 270-681-9; EC N°649-199-00-9; REACH N° 01-2119486557-22-xxxx): 5% -10%

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

Full text of hazard symbols and H-phrases of the ingredients are listed in section 16.

4 FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation:	Not relevant. However in case of illness take away from the contaminated area, if breathing is irregular or stops, make artificial respiration. Do not give drinks or medications to the patient. If the person is unconscious, take the position and seek medical advice.
Eye contact:	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical attention if necessary
Skin contact:	Wash with water. If irritation persists, seek medical advice.
Ingestion:	If you were to verify the ingestion, do not induce vomiting, in order to avoid the risk of aspiration of the product into the trachea, with possible pulmonary congestion. Keep at rest. Seek medical advice

4.2 Most important symptoms of both acute and delayed: not available

4.3. Indication of any immediate medical attention and special treatment needed: not available

5 FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media:	Fire extinguishers, powder or foam.
Unsuitable extinguishing media:	Do not use water jet. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.
5.2 Special hazards arising from the substance or mixture:	Excess pressure may form in containers exposed to fire at a risk of explosion. Avoid to breathe combustion products (carbon oxide, toxic pyrolysis products, etc.).
5.3 Advice for firefighters:	Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Keep containers cool by spraying with water if exposed to fire. Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), self-respirator (self-protector).

6 MEASURES IN CASE OF ACCIDENTAL RELEASE

6.1 Personal precautions, protective equipment and emergency procedures:	Eliminate all sources of ignition (cigarettes, flames, sparks, etc.). In the case of solid product to avoid the formation of dust spraying the product with water if there are no contraindications. If dust or vapors are present use breathing equipment. Stop leak if safe to do so. Do not handle damaged containers or leaked product before donning appropriate protective gear. Keep away unprotected persons. For information on risks for the environment and health, protection of the respiratory airways, ventilation and individual protective measures refer to the other sections of this sheet.
6.2 Environmental precautions:	Do not discharge into drains/surface waters/groundwater
6.3 Methods and materials for containment and cleaning up:	For liquid products, suck into a suitable container (made of material compatible with the product) and soak up the residual product with suitable absorbent material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc.). Collect the majority of the remaining material and deposit in containers for disposal. The disposal of contaminated material must be made in accordance with point 13.
6.4 Reference to other sections:	See also section. 8 and 13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling:	Avoid the accumulation of electrostatic charges. Vapours may ignite with explosion, it is, therefore, necessary to avoid their accumulation keeping the windows and doors opened with adequate ventilation. Without adequate ventilation, the vapors may accumulate and ignite. Open and handle container with care. Pressurized container. Do not pierce or burn the container or tamper with the valve, neither after use. Do not use near open flames or other sources of possible injection. Do not turn on electrical appliances until the vapors have evaporated.
7.2 Conditions for safe storage,	Keep containers upright and in secure position in order to avoid falls or collisions.

including any incompatibilities:	Protect from sunlight, heat sources and do not keep at temperatures above 50 ° C. Keep away from oxidising agents and strong acid or alkaline products. Store in places intended for flammable products, with appropriate ventilation and electrical system. The product can accumulate electrostatical charges.
7.3 Specific end uses:	not provided

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

Data refer to the individual ingredients listed in section 3:

MIXTURE OF SUBSTANCES DEFINED AS LIQUEFIED PETROLEUM GAS (LPG) C3-C4 hydrocarbons (CAS N°68476-40-4; EINECS N° 270-681-9; EC N°649-199-00-9; REACH N° 01- 2119486557-22-xxxx):

It is suggested to work in conditions of natural or mechanical ventilation to be sure that the gas does not exceed 25% of the LEL (lower explosion limit in air 1.8%).
Dangerous concentrations by professional inhalation are provided by ACGIH TLV 2010 tables as follows:
TLV TWA Average weighted concentration for working day of 8 hours (chronic exposure) to which almost all workers may be repeatedly exposed day after day without adverse effects:
Alkanes C1-C4: 1000 ppm
ACGIH also recommended that the exposure limit values of biologically inert particles, without a value TLV, is maintained below 3 mg / m^3 for the respirable particles; to below 10 mg / m^3 for the inhalable.
For monitoring / control conditions, it is suggested to refer to the current legislation.

Values DNEL (Derived Non Effect) and DMEL (Derived Minimum Effect Level):
Not derived in that the mixture contains no hazardous components for the health.
It is suggested to stick to the values according to the above exposure limits for all applications.
(Refer to Section 15)

Values PNEC (S) (Predicted No Effect Concentration):
PNEC values in water (continuous release):
Not derived as the mixture does not contain hazardous components for the environment
PNEC values in water (intermittent release):
Not derived because the mixture does not contain hazardous components for the environment
PNEC values in soil
Not derived because the mixture does not contain hazardous components for the environment
PNEC values for sedimentation:
Not derived because the mixture does not contain hazardous components for the environment
PNEC values in sewage treatment plants:
Not derived because the mixture does not contain hazardous components for the environment

8.2 personal and environmental exposure control:

Respiratory protection:	Not necessary.
Hand protection:	In general not necessary because it is a cosmetic product that comes in contact with the skin. However in case of prolonged use (professional use) of the product, use protective gloves to work Category I (EN 374)

	as latex, PVC or equivalent. For the final choice of work glove material must be considered: degradation, breakage times and permeation.
Eye protection:	Not necessary, however, in case of prolonged use of this product, use eye protection. (Ref. Standard EN 166).
Skin protection:	Use antistatic clothing, preferably in natural fibers. After contact with the product, all skin wetted parts must be washed.
Thermal hazards:	not available
Environmental exposure controls:	avoid littering

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 General informations:

- appearance:	colorless liquid under pressure (aerosol)
- odour:	scented

9.2 Important information on health, safety and the environment:

- pH	not applicable
- Melting point / freezing point:	not available
- Point / boiling range:	not available
- Flash point:	from -104 ° C to -80 ° C (propellant)
- Flammability (solid, gas):	extremely flammable
- Upper / lower flammability limits:	Lim. Inf. 1.8% - Sup. 9.5% vol / vol in the air (propellant)
- Explosive properties:	not available
- Oxidizing properties:	not available
- Vapor pressure:	not available
- relative density:	0.85-0.89 (liquid + propellant)
- Solubility:	
- Water solubility:	partially soluble
- Fat solubility (n-hexane):	partially soluble
- Partition coefficient: (N-octanol / water)	not available
- viscosities	not available
- Vapor density:	not available
- Evaporation rate:	not available
- Auto-ignition temperature	From 400 to 490 ° C (propellant)
- Decomposition temperature	not available
9.3 Other information:	VOC (Directive 1999/13 / EC): 20% liquid inside

10 STABILITY AND REACTIVITY

10.1 Reactivity	See sec. 10.4 and 10.6
10.2 Chemical stability	The product is stable if properly stored.
10.3 Possibility of hazardous reactions	See sec. 10.5
10.4 Conditions to avoid:	The aerosol containers overheated to temperatures exceeding 50 ° C., They may deform, burst and be thrown to considerable distances. The preparation is stable at the handling and storage conditions recommended in paragraph HANDLING AND STORAGE.

	Avoid overheating, electrostatic discharge and all ignition sources. Avoid exposure to sources of heat and open flames.
10.5 Incompatible materials:	Keep away from oxidizing agents, chemicals or basic products, in order to avoid corrosion of the container.
10.6 Hazardous decomposition products:	When heated or in case of fire, potentially vapours dangerous to health can be released

11 TOXICOLOGICAL INFORMATION

Acute toxicity Ingestion: Product ingestion is an unlikely event. Any ingestion causes irritation to gastrointerico tract. Other symptoms may be nausea, vomiting.
Acute inhalation toxicity: inhalation of this product is an individual low probability event.
Contact with the skin: the product is a cosmetic suitable for contact with the skin. People allergic to one of the substances listed in INGREDIENTS may have redness
Eye contact: Irritation with redness and tearing phenomena.

The product is not irritating.

TOXICITY INFORMATION OF INGREDIENTS INDICATED IN SECTION 3:

MIXTURE OF SUBSTANCES DEFINED AS LIQUEFIED PETROLEUM GAS (LPG) C3-C4 hydrocarbons (CAS N°68476-40-4; EINECS N° 270-681-9; EC N°649-199-00-9; REACH N° 01-2119486557-22-xxxx):

INFORMATION ON TOXICOLOGICAL EFFECTS

Literature data concerning the toxicokinetic studies about the short chain alkanes (C1-C4), show how these alkanes exist in the vapor form at room temperature, and they are poorly absorbed. If the exposure involves an absorption (situation of higher concentrations), the latter would not be particularly relevant: there is little evidence of metabolism, as such mixture if it were absorbed, would normally be quickly exhaled.
In addition the studies, it would appear that the absorption tends to increase with increasing molecular weight.
Unbranched molecules would be more easily absorbed than those branched and the aromatic molecules would be more easily absorbed than paraffin.
The main toxicological studies have been performed on rats.

ACUTE TOXICITY

The mixture at room temperature and atmospheric pressure, is presented as a colorless gas. Consequently the information relating to acute toxicity by the oral and inhalation are not particularly relevant.

ACUTE TOXICITY FOR ORAL

According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture comes to a gaseous state at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

ACUTE TOXICITY BY INHALATION

The vapors may cause narcotic effects.
High inhaled air concentrations can lead to unconsciousness and asphyxiation from lack of oxygen.
For propane:
Key study propane:
LC50 rat (male / female) [15 minutes]: 800,000 ppm
LC50 rat (male / female) [15 minutes]: 14,442,738 mg / m3
LC50 rat (male / female) [15 minutes]: 1443 mg / L
[Source: DG Clark and Tiston DJ (1982)]

For isobutane
Key study isobutane
LC50 rat (male) [2 hours] Gas Phase: 520400
ppm [Source: Aviado (1982)]
For butane
rat LC50 [inhalation]: 658 mg / l 4 h (literature value)
No labeling required - related to substance: Butane
human studies [general population] have shown that the smell is not detectable below 20000 ppm (2%) and a concentration of 100,000 ppm (10%) has produced mild irritation to eyes, nose and respiratory tract but caused slight dizziness within a few minutes [evidenze_Anon weight of 198, Herman (Chairman 1966)

ACUTE TOXICITY DERMAL
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

CORROSION / IRRITATION
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns.

SERIOUS EYE DAMAGE / IRRITATION SERIOUS
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted becasuse the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns.

RESPIRATORY OR SKIN
SENSITIZATION respiratory sensitization
There are no studies that indicate this type of effect
skin sensitization
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted becasuse the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns

GERM CELL MUTAGENICITY
Experiments in vitro and on animals, we do not tell no evidence genotoxicity. Moreover the mixture may contain as an impurity 1,3-butadiene in a concentration of less than 0.1%; consequently it is not classified mutagenic in accordance with legislation on hazardous substances.
Information regarding propane
Genetic toxicity in vitro - Key study propane Ames
test in Salmonella typhimurium [OECD 471] No
evidence of mutagenic effects
Metabolic activation: ao no
Method: Mutagenicity (Salmonella tiphymurium - wise reversion)
[Source: Kirwin CJ Thomas and WC (1980)]

Information concerning the Liquefied Petroleum Gas [LPG Key
study] Test in vivo
Micronucleus test: rats - inhalation - [OECD Guideline
474] Result: negative
[Source: Huntingdon Life Sciences (HLS), 2009b]

Carcinogenicity

There is no indication or evidence of carcinogenicity. The present state of knowledge, the test results for mutagenicity and toxicity with repeated administration, we should not expect a carcinogenic effect. Moreover the mixture may contain as an impurity 1,3-butadiene in a concentration of less than 0.1%; consequently it is not classified carcinogenic according to the Dangerous Substances legislation.

TOXIC TO REPRODUCTION

Reproductive toxicity

Literature data revealed no consistent evidence of toxicity for fertility; therefore the mixture is not classified as toxic for reproduction according to the Dangerous Substances legislation.
Here are the information about the individual substances in the mixture:

For propane:

Screening for toxicity inherent in the reproductive / developmental Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21641 mg / L NOAEL F1: 21,641 mg / L
Method: OECD Test Guideline 422
In animal studies (422 OECD, research screening) There were no effects that harm foetuses clues

For isobutane:

Screening for toxicity inherent in the reproductive / developmental Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) parents: 7,131 mg / L
NOAEL F1: 21,394 mg / L
Method: OECD Test Guideline 422

For butane:

Screening for toxicity inherent in the reproductive / developmental Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L NOAEL F1: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there have been no indications of effects that harm foetuses.
Information concerning the Liquefied Petroleum Gas [LPG Key study] in vivo study
Rat - Inhalation Exposure 13 wk., 6h / g., 5g / wk.
OECD Guideline413 EPA OPPTS870.4365 (90-
NOAEC: 10000 ppm
(M / F) no effect on the menstrual cycle, spermatogenesis, mobility and sperm count
Source: Huntingdon Life Sciences (HLS), 2009b]

Developmental Toxicity / Teratogenicity

Literature data revealed no consistent evidence of developmental toxicity / teratogenicity: the main impurities of the mixture mean that the latter is not classified as toxic for reproduction within the meaning of the Dangerous Substances legislation.
Here are the information about the individual substances in the mixture

For propane

Screening for toxicity inherent in the reproductive / developmental Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21641 mg / L NOAEL F1: 21,641 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication of effects about harm on foetuses.

For isobutane:
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg /
L NOAEL maternal: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn't indication about damage on development.

For butane
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg /
L NOAEL maternal: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn't indication about damage on development.

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE
No information

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED
EXPOSURE Oral
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

Cutaneous
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. It is extremely volatile and flammable at room temperature and it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

Inhalation
Literature data showed no consistent evidence due to inhalation: Literature data about inhalation showed no consistent evidence: the mixture with the main impurities is not classified it as toxic according to the Dangerous Substances legislation

Here are the information about the individual substances in the mixture

For propane
From studies conducted for a period of 6 weeks old on male and female rats they were not observed neurological, hematologic or clinical effects. At doses of 12,000 ppm for male animals showed a 25% decrease in weight during the first week of exposure.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is 12,000 ppm (equivalent to 21 641 mg / m3).

For isobutane
From studies conducted for a period of 6 weeks old on male and female rats they were not observed neurological, hematologic or clinical effects.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is of 21,394 mg / L
[OECD TG 422] method.

For butane
From studies conducted for a period of 6 weeks on male and female rats they were not observed neurological, hematologic or clinical effects.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is of 21,394 mg / L

[OECD TG 422] method.
The vapors may cause narcotic effects
High concentrations in the air inhaled can lead to unconsciousness and asphyxiation due to lack of oxygen.

DANGER ASPIRATION
Not applicable. The mixture at room temperature and atmospheric pressure, is a colourless gas.

FURTHER INFORMATION
Under normal conditions of use, the mixture can be used in safety according to the above.
However, the deliberate abuse of high concentrations of vapor, even for short periods, may result in unconsciousness or prove fatal.

12 ECOLOGICAL INFORMATION

12.1 ecotoxicity:

The toxicity of individual ingredients:

MIXTURE OF SUBSTANCES DEFINED AS LIQUEFIED PETROLEUM GAS (LPG) C3-C4 hydrocarbons (CAS N°68476-40-4; EINECS N° 270-681-9; EC N°649-199-00-9; REACH N° 01- 2119486557-22-xxxx):

Toxicity
current data related to the aquatic toxicity showed no evidence of toxicity phenomena from an ecological point of view and the PNEC (S) were not derived for freshwater, marine water, sediment and soil.
A temperature and atmospheric pressure, the mixture is presented as a gas, colorless, extremely volatile and practically insoluble in water: in accordance with column 2 of Annexes VII and VIII of the REACH Regulation, the acute toxicity tests (acute toxicity to aquatic environment, chronic toxicity in the aquatic environment, toxicity on earth) can not be performed if there are conditions that indicate that aquatic toxicity is unlikely.
As regards the treatment of waste water, no particular actions to be performed because the mixture is, at atmospheric temperature and pressure, in the gaseous state, extremely volatile and practically insoluble in water

Toxicity for fish
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena because of the volatility.
Information about butane:
Key study butane Fish - Short term QSAR EPA 2008 LC50 96 / h 24.11 mg / L

Toxicity to daphnia
Given the aforementioned physical and chemical characteristics of, mix, literature data have shown no toxicity phenomena improbable because of the volatility.
Information about butane:
Key study butane Daphnia - Short-term USEPA OPP 48 2008 LC50 / h 14:22 mg / L
Algae toxicity
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena improbable because of the volatility

Toxicity to bacteria
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena improbable because of the volatility
Information regarding propane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: with or without

	Method: Mutagenicity (Salmonella typhimurium - wise reversion) Information about the isobutane Ames test Salmonella typhimurium No evidence of mutagenic effects Metabolic activation: S-9 rat liver mix Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) reported to isobutane Information regarding butane Ames test Salmonella typhimurium No evidence of mutagenic effects Metabolic activation: with or without Method: Mutagenicity (Salmonella typhimurium - wise reversion) chromosome aberration in vitro human lymphocytes not clastogenic Metabolic activation: with or without Method: OECD Test Guideline 473 Toxicity to living organisms in the soil Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena improbable because of the volatility. Toxicity to terrestrial plants Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena improbable because of the volatility.
12.2 Mobility in soil:	Date not available
12.3 Persistence and degradability:	Date not available.
12.4 Potential to accumulate:	Data not available, the individual ingredients are not bioaccumulative.
12.5 Results of PBT and vPvB	No PBT or vPvB (evaluation done on the individual ingredients)
12.6 Other adverse effects:	not provided

13 DISPOSAL CONSIDERATIONS

The product must not be disposed of with household waste. Do not empty into drains. Disposal of the product must be authorized in place and in compliance with applicable national laws. CONTAINERS not completely empty must be brought to a disposal authorized and equipped to recover the metal container containing flammable gas. The aerosol container superheated to temperatures above 50 ° C may burst even if it contains a small residual gas.

14 TRANSPORT INFORMATION

Road / rail transport ADR / RID (cross-border)

- ADR / RID-GGVS / E: 2 5F Gases
- Kemler Number: -
- UN-Number: 1950
- Packaging group: -
- Label: 2.1
- Description of goods: 1950 AEROSOLS
- Limited quantity (LQ) LQ2
- the Tunnel restriction code D

- Maritime transport IMDG:
- IMDG Class: 2.1
- UN-Number: 1950
- Label 2.1
- Packaging group: -
- EMS Number: F-D, S-U
- Marine pollutant:
- Proper shipping name: AEROSOLS

- Air transport ICAO-TI and IATA-DGR:
- ICAO / IATA: 2.1

- UN / ID Number: 1950
- Label 2.1
- Packaging group: -
- Correct technical name: AEROSOLS, flammable

15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations, legislation specific for the substance or mixture:

REGULATION (EC) No. 1223/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 November 2009 on cosmetic products.

Statement Aerosol
Directives: 75 / 324CE - 94/1 EC - 2008 / 47CE - 2013/10 EU
Regulation EC 807/2003
Regulation EC 219/2009

Regulation 1907/2006 / EC (REACH).
Regulation 1272/2008 / EC (CLP) VII ATP
Regulation EC 453/2010
D. lgs. April 9, 2008, n. 81 ACT ON HEALTH AND SAFETY AT WORK (Italy)

This is not an exhaustive list.

15.2 Chemical Safety Assessment Not applicable

16 FURTHER INFORMATION

Hazard symbols and full text of H-phrases quoted in section 3 of the MSDS for the individual components:

REGULATION EC 1272/2008
GHS02: flame
Flam. Gas 1: Flammable gas Category 1
H220 Extremely flammable gas

GHS04: gas cylinder
Press. Gas: Gas under pressure
H280 Contains gas under pressure, may explode if heated.

MSDS Version 1.0 of 21.06.2016

ABBREVIATIONS and ACRONYMS:

ACGIH = American Conference of Governmental Industrial
Hygienists CSR = Chemical Safety Report
DNEL = Derived No Effect
DMEL = Derived Minimum Effect Level
EC50 = Effective Concentration median
IC50 = inhibitory concentration, 50%
Klimisch = Evaluation criterion for the reliability (reliability) of the method used
LC50 = Lethal concentration, 50%
LD50 = Lethal Dose Media
PNEC = Expected Non Effect Concentration
N.A. = Not applicable
n.d. = Not available
Substance PBT = Persistent, Bioaccumulative and
Toxic CNS = central nervous system

= STOT specific target organ toxicity
(STOT) RE Repeated Exposure =
(STOT) SE = Single exposure
Key study = study of greatest relevance
TLV®TWA = Threshold Limit Value - Time Weighted Average
TLV®STEL = Threshold Limit Value - for a short time exposure limit
UVCB = substance from the composition is not known and variable (substances of Unknown or Variable composition)
vPvB = very Persistent and very Bioaccumulative
P = Persistent

Sicherheitsdatenblatt

gemäß Verordnung (EG) Nr. 1907/2006

Farbfleckenentferner

ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

1.1. Produktidentifikator

Farbfleckenentferner

1.2. Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird

Verwendung des Stoffs/des Gemischs

Kosmetika

Verwendungen, von denen abgeraten wird

Jede nicht bestimmungsgemäße Verwendung.

1.3. Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt

Firmenname:	GW Cosmetics GmbH	
Straße:	Achauerstrasse 49a	
Ort:	A-2333 Leopoldsdorf	
Telefon:	+43 / 2235 / 47 940-0	Telefax: +43 / 2235 / 47 940-39
Auskunftgebender Bereich:	office@gwcosmetics.at	

1.4. Notrufnummer:

+43 / 2235 / 47 940-0 (09:00-16:00 CET)

Weitere Angaben

Dieses Produkt unterliegt der Kosmetikverordnung. Das vorliegende Sicherheitsdatenblatt wurde auf freiwilliger Basis erstellt.

ABSCHNITT 2: Mögliche Gefahren

2.1. Einstufung des Stoffs oder Gemischs

Verordnung (EG) Nr. 1272/2008

Gefahrenkategorien:
Entzündbare Flüssigkeiten: Entz. Fl. 3
Schwere Augenschädigung/Augenreizung: Augenreiz. 2
Gefahrenhinweise:
Flüssigkeit und Dampf entzündbar.
Verursacht schwere Augenreizung.

2.2. Kennzeichnungselemente

Verordnung (EG) Nr. 1272/2008

Signalwort: Achtung

Piktogramme:

Gefahrenhinweise

H226	Flüssigkeit und Dampf entzündbar.
H319	Verursacht schwere Augenreizung.

Sicherheitshinweise

P101	Ist ärztlicher Rat erforderlich, Verpackung oder Kennzeichnungsetikett bereithalten.
P102	Darf nicht in die Hände von Kindern gelangen.
P210	Von Hitze, heißen Oberflächen, Funken, offenen Flammen sowie anderen Zündquellen fernhalten. Nicht rauchen.
P264	Nach Gebrauch Hände gründlich waschen.
P403+P235	An einem gut belüfteten Ort aufbewahren. Kühl halten.
P501	Inhalt / Behälter der Entsorgung gemäß den örtlichen/nationalen/internationalen

Vorschriften zuführen.

Besondere Kennzeichnung bestimmter Gemische

EUH208 Enthält Zitronenöl. Kann allergische Reaktionen hervorrufen.

Hinweis zur Kennzeichnung

Kennzeichnung erfolgt gemäß Kosmetikverordnung.

2.3. Sonstige Gefahren

Bei Gebrauch Bildung explosionsfähiger/leichtentzündlicher Dampf/Luft-Gemische möglich.
Die Stoffe im Gemisch erfüllen nicht die PBT/vPvB Kriterien gemäß REACH, Anhang XIII.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

3.2. Gemische

Gefährliche Inhaltsstoffe

CAS-Nr.	Bezeichnung			Anteil
	EG-Nr.	Index-Nr.	REACH-Nr.	
	GHS-Einstufung			
67-63-0	2-Propanol; Isopropylalkohol; Isopropanol			12 - < 15 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
9005-65-6	Sorbitanmonooleat, ethoxyliert			1 - < 3 %
	500-019-9			
	Aquatic Chronic 3; H412			
84929-31-7	Zitronenöl			0,1 - < 0,2 %
	284-515-8		01-2119495512-35	
	Flam. Liq. 3, Repr. 2, Skin Irrit. 2, Skin Sens. 1, Asp. Tox. 1, Aquatic Chronic 2; H226 H361 H315 H317 H304 H411			

Wortlaut der H- und EUH-Sätze: siehe Abschnitt 16.

Spezifische Konzentrationsgrenzen, M-Faktoren und ATE

CAS-Nr.	EG-Nr.	Bezeichnung	Anteil
	Spezifische Konzentrationsgrenzen, M-Faktoren und ATE		
67-63-0	200-661-7	2-Propanol; Isopropylalkohol; Isopropanol	12 - < 15 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = 5840 mg/kg		
9005-65-6	500-019-9	Sorbitanmonooleat, ethoxyliert	1 - < 3 %
	oral: LD50 = 25000 mg/kg		

Weitere Angaben

Das Produkt enthält keine gelisteten SVHC Stoffe > 0,1% gemäß Verordnung (EG) Nr. 1907/2006 § 59 (REACH).

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

4.1. Beschreibung der Erste-Hilfe-Maßnahmen

Allgemeine Hinweise

Bei Unfall oder Unwohlsein sofort Arzt hinzuziehen (wenn möglich, Betriebsanweisung oder Sicherheitsdatenblatt vorzeigen). Beschmutzte, getränkte Kleidung sofort ausziehen.

Nach Einatmen

Die Person an die frische Luft bringen und für ungehinderte Atmung sorgen. Bei Reizung der Atemwege Arzt aufsuchen.

Nach Hautkontakt

Beschmutzte, getränkte Kleidung sofort ausziehen. Mit reichlich Wasser abwaschen. Bei Hautreizungen Arzt

aufsuchen.

Nach Augenkontakt

Einige Minuten lang behutsam mit Wasser ausspülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter ausspülen. Bei anhaltender Augenreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.

Nach Verschlucken

Mund gründlich mit Wasser ausspülen. Reichlich Wasser in kleinen Schlucken trinken lassen (Verdünnungseffekt). KEIN Erbrechen herbeiführen. Niemals einer bewusstlosen Person oder bei auftretenden Krämpfen etwas über den Mund verabreichen. Bei Auftreten von Symptomen oder in Zweifelsfällen ärztlichen Rat einholen.

4.2. Wichtigste akute und verzögert auftretende Symptome und Wirkungen

Es liegen keine Informationen vor.

4.3. Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

Symptomatische Behandlung.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

5.1. Löschmittel

Geeignete Löschmittel

Kohlendioxid (CO_2). Trockenlöschmittel. alkoholbeständiger Schaum.
Bei Großbrand und großen Mengen: Sprühwasser.

Ungeeignete Löschmittel

Wasservollstrahl.

5.2. Besondere vom Stoff oder Gemisch ausgehende Gefahren

Im Brandfall können entstehen: Gase/Dämpfe, reizend. Kohlenmonoxid. Kohlendioxid (CO_2).

5.3. Hinweise für die Brandbekämpfung

Im Brandfall: Umgebungsluftunabhängiges Atemschutzgerät verwenden.Explosions- und Brandgase nicht einatmen.

Zusätzliche Hinweise

Kontaminiertes Löschwasser getrennt sammeln. Nicht in die Kanalisation oder Gewässer gelangen lassen.
Zum Schutz von Personen und zur Kühlung von Behältern im Gefahrenbereich Wassersprühstrahl einsetzen.
Bei Großbrand und großen Mengen: Umgebung räumen. Wegen Explosionsgefahr Brand aus der Entfernung bekämpfen.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

6.1. Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren

Allgemeine Hinweise

Alle Zündquellen entfernen. Den betroffenen Bereich belüften.
Gas/Dampf/Aerosol nicht einatmen. Kontakt mit Haut, Augen und Kleidung vermeiden.

Nicht für Notfälle geschultes Personal

Persönliche Schutzausrüstung: siehe Abschnitt 8

Einsatzkräfte

Es sind keine besonderen Maßnahmen erforderlich.

6.2. Umweltschutzmaßnahmen

Nicht in die Kanalisation oder Gewässer gelangen lassen. Kanalisation abdecken. Flächenmäßige Ausdehnung verhindern (z.B. durch Eindämmen oder Ölsperren). Bei Gasaustritt oder bei Eindringen in Gewässer, Boden oder Kanalisation zuständige Behörden benachrichtigen.

6.3. Methoden und Material für Rückhaltung und Reinigung

Für Rückhaltung

Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder) aufnehmen.

Das aufgenommene Material gemäß Abschnitt Entsorgung behandeln.

Für Reinigung

Verschmutzte Gegenstände und Flächen unter Beachtung der Umweltvorschriften gründlich reinigen.

Weitere Angaben

Den betroffenen Bereich belüften.

6.4. Verweis auf andere Abschnitte

Sichere Handhabung: siehe Abschnitt 7
Entsorgung: siehe Abschnitt 13

ABSCHNITT 7: Handhabung und Lagerung

7.1. Schutzmaßnahmen zur sicheren Handhabung

Hinweise zum sicheren Umgang

Für ausreichende Belüftung und punktförmige Absaugung an kritischen Punkten sorgen.
Bei der Arbeit geeignete Schutzkleidung tragen. (Siehe Abschnitt 8.)

Hinweise zum Brand- und Explosionsschutz

Von Zündquellen fernhalten - Nicht rauchen. Maßnahmen gegen elektrostatische Aufladungen treffen. Im Dampfraum geschlossener Systeme können sich brennbare Dämpfe ansammeln. Bei Gebrauch Bildung explosionsfähiger/leichtentzündlicher Dampf/Luft-Gemische möglich. Erhitzen führt zu Druckerhöhung und Berstgefahr.

Weitere Angaben zur Handhabung

Schutz- und Hygienemaßnahmen: Siehe Abschnitt 8.

7.2. Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten

Anforderungen an Lagerräume und Behälter

Behälter dicht geschlossen halten und an einem kühlen, gut gelüfteten Ort aufbewahren. Gegen direkte Sonneneinstrahlung schützen.
Ausreichende Lagerraumbelüftung sicherstellen.
Sicherstellen, dass Leckagen aufgefangen werden können (z.B. Auffangwannen oder Auffangflächen).

Zusammenlagerungshinweise

Nicht zusammen lagern mit: Gas. Explosivstoffe. Entzündbare feste Stoffe. Selbstentzündliche (pyrophore) flüssige und feste Stoffe. Selbsterhitzungsfähige Stoffe oder Gemische. Stoffe und Gemische, die in Berührung mit Wasser entzündbare Gase entwickeln. Entzündend (oxidierend) wirkende flüssige Stoffe. Entzündend (oxidierend) wirkende feste Stoffe. Ammoniumnitrat. Selbstzersetzliche Stoffe und Gemische. Organische Peroxide. Nicht brennbare giftige Stoffe. Radioaktive Stoffe. Ansteckungsgefährliche Stoffe.

Weitere Angaben zu den Lagerbedingungen

Die Verpackung trocken und gut verschlossen halten, um Verunreinigung und Absorption von Feuchtigkeit zu vermeiden.
Schützen gegen: UV-Einstrahlung/Sonnenlicht. Hitze. Feuchtigkeit Frost.
Lagertemperatur: 15-25°C

Lagerklasse nach TRGS 510: 3 (Entzündbare Flüssigkeiten)

7.3. Spezifische Endanwendungen

Siehe Abschnitt 1.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

8.1. Zu überwachende Parameter

Arbeitsplatzgrenzwerte (TRGS 900)

CAS-Nr.	Bezeichnung	ppm	mg/m³	F/m³	Spitzenbegr.	Art
67-63-0	Propan-2-ol	200	500		2(II)	

Biologische Grenzwerte (TRGS 903)

CAS-Nr.	Bezeichnung	Parameter	Grenzwert	Unters.- material	Proben.- Zeitpunkt
67-63-0	Propan-2-ol	Aceton	25 mg/l	U	b

DNEL-/DMEL-Werte

CAS-Nr.	Bezeichnung			
DNEL Typ		Expositionsweg	Wirkung	Wert
67-63-0	2-Propanol; Isopropylalkohol; Isopropanol			
Arbeitnehmer DNEL, langzeitig		inhalativ	systemisch	500 mg/m³
Verbraucher DNEL, langzeitig		inhalativ	systemisch	89 mg/m³
Arbeitnehmer DNEL, langzeitig		dermal	systemisch	888 mg/kg KG/d
Verbraucher DNEL, langzeitig		oral	systemisch	26 mg/kg KG/d
Verbraucher DNEL, langzeitig		dermal	systemisch	319 mg/kg KG/d

PNEC-Werte

CAS-Nr.	Bezeichnung	
Umweltkompartiment		Wert
67-63-0	2-Propanol; Isopropylalkohol; Isopropanol	
Süßwasser		140,9 mg/l
Süßwasser (intermittierende Freisetzung)		140,9 mg/l
Meerwasser		140,9 mg/l
Süßwassersediment		552 mg/kg
Meeressediment		552 mg/kg
Sekundärvergiftung		160 mg/kg
Mikroorganismen in Kläranlagen		2251 mg/l
Boden		28 mg/kg

8.2. Begrenzung und Überwachung der Exposition



Geeignete technische Steuerungseinrichtungen

Technische Maßnahmen und die Anwendung geeigneter Arbeitsverfahren haben Vorrang vor dem Einsatz persönlicher Schutzausrüstungen.
Für ausreichende Belüftung und punktförmige Absaugung an kritischen Punkten sorgen.

Schutz- und Hygienemaßnahmen

Die üblichen Vorsichtsmaßnahmen beim Umgang mit Chemikalien müssen beachtet werden.
Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.
Behälter nach Produktentnahme immer dicht verschliessen. Am Arbeitsplatz nicht essen, trinken, rauchen, schnupfen. Vor den Pausen und bei Arbeitsende Hände waschen. Vorbeugender Hautschutz durch Hautschutzsalbe. Kontaminierte Kleidung ausziehen.

Augen-/Gesichtsschutz

Schutzbrille tragen; Chemiebrille (wenn Spritzer möglich sind). DIN EN 166

Handschutz

Bei längerem oder oftmals wiederholtem Hautkontakt: Geeignete Schutzhandschuhe tragen. (DIN EN 374)

Geeignetes Material: Butylkautschuk.
Dicke des Handschuhmaterials: 0,5 mm
Durchbruchszeit: >= 480 min. Durchdringungszeit (maximale Tragedauer): ~ 120 min. (geschätzt)
Bei beabsichtigter Wiederverwendung Handschuhe vor dem Ausziehen reinigen und gut durchlüftet aufbewahren. Vor Gebrauch auf Dichtheit / Undurchlässigkeit überprüfen.
Es wird empfohlen, die Chemikalienbeständigkeit der oben genannten Schutzhandschuhe für spezielle Anwendungen mit dem Handschuhhersteller abzuklären.

Körperschutz

Bei der Arbeit geeignete Schutzkleidung tragen.
Mindeststandards für Schutzmaßnahmen beim Umgang mit Arbeitsstoffen sind in der TRGS 500 aufgeführt.

Atemschutz

Bei sachgemäßer Verwendung und unter normalen Bedingungen ist ein Atemschutz nicht erforderlich.
Atemschutz ist erforderlich bei:
Aerosolerzeugung/-bildung
Grenzwertüberschreitung
Unzureichender Belüftung
Geeignetes Atemschutzgerät: Kombinationsfiltergerät (EN 14387) Filtertyp: A/P1-3
Die Atemschutzfilterklasse ist unbedingt der maximalen Schadstoffkonzentration (Gas/Dampf/Aerosol/Partikel) anzupassen, die beim Umgang mit dem Produkt entstehen kann. Bei Konzentrationsüberschreitung muss Isoliergerät benutzt werden! Die Tragezeitbegrenzungen nach GefStoffV in Verbindung mit den Regeln für den Einsatz von Atemschutzgeräten (BGR 190) sind zu beachten.

Begrenzung und Überwachung der Umweltexposition

Produkt nicht unkontrolliert in die Umwelt gelangen lassen.

ABSCHNITT 9: Physikalische und chemische Eigenschaften

9.1. Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften

Aggregatzustand:	flüssig
Farbe:	nicht bestimmt
Geruch:	charakteristisch
pH-Wert:	nicht bestimmt

Zustandsänderungen

Schmelzpunkt:	nicht anwendbar
Siedepunkt oder Siedebeginn und Siedebereich:	nicht bestimmt
Flammpunkt:	33 °C

Explosionsgefahren

Bei Gebrauch Bildung explosionsfähiger/leichtentzündlicher Dampf/Luft-Gemische möglich.

Untere Explosionsgrenze:	nicht bestimmt
Obere Explosionsgrenze:	nicht bestimmt
Zündtemperatur:	nicht bestimmt
Zersetzungstemperatur:	nicht bestimmt

Brandfördernde Eigenschaften

keine/keiner.

Dampfdruck: (bei 20 °C)	nicht bestimmt
Dichte:	nicht bestimmt
Wasserlöslichkeit:	mischbar.

Löslichkeit in anderen Lösungsmitteln

nicht bestimmt

Dyn. Viskosität: (bei 40 °C)	nicht bestimmt
Kin. Viskosität: (bei 20 °C)	nicht bestimmt
Relative Dampfdichte:	nicht bestimmt
Verdampfungsgeschwindigkeit:	nicht bestimmt
Lösemitteltrennprüfung:	nicht bestimmt
Lösemittelgehalt:	nicht bestimmt

9.2. Sonstige Angaben

Festkörpergehalt:	nicht bestimmt

ABSCHNITT 10: Stabilität und Reaktivität

10.1. Reaktivität

Es liegen keine Informationen vor.

10.2. Chemische Stabilität

Das Gemisch ist unter den empfohlenen Lagerungs-, Verwendungs- und Temperaturbedingungen chemisch stabil.

10.3. Möglichkeit gefährlicher Reaktionen

Bei bestimmungsgemäßer Handhabung und Lagerung treten keine gefährlichen Reaktionen auf.
Siehe Kapitel 10.5.

10.4. Zu vermeidende Bedingungen

Schützen gegen: UV-Einstrahlung/Sonnenlicht. Hitze. feuchtigkeit.
Kann bei Verwendung explosionsfähige/entzündbare Dampf/Luft-Gemische bilden.
Erhitzen führt zu Druckerhöhung und Berstgefahr.

10.5. Unverträgliche Materialien

Zu vermeidende Stoffe: Oxidationsmittel, stark. Reduktionsmittel, stark. Starke Säure. starke Laugen.

10.6. Gefährliche Zersetzungsprodukte

Zersetzt sich nicht bei der vorgesehenen Verwendung.
Im Brandfall können entstehen: Gase/Dämpfe, reizend. Kohlenmonoxid. Kohlendioxid (CO2).

ABSCHNITT 11: Toxikologische Angaben

11.1. Angaben zu den Gefahrenklassen im Sinne der Verordnung (EG) Nr. 1272/2008

Toxikokinetik, Stoffwechsel und Verteilung

Keine Daten verfügbar.

Akute Toxizität

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
Das Produkt wurde nicht geprüft.

CAS-Nr.	Bezeichnung				
	Expositionsweg	Dosis	Spezies	Quelle	Methode
67-63-0	2-Propanol; Isopropylalkohol; Isopropanol				
	oral	LD50 5840 mg/kg	Ratte	ECHA Dossier	
	dermal	LD50 > 5000 mg/kg	Kaninchen	ECHA Dossier	
9005-65-6	Sorbitanmonooleat, ethoxyliert				
	oral	LD50 25000 mg/kg	Maus.	externes MSDS	

Reiz- und Ätzwirkung

Verursacht schwere Augenreizung.

Ätz-/Reizwirkung auf die Haut: Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Sensibilisierende Wirkungen

Enthält Zitronenöl. Kann allergische Reaktionen hervorrufen.

Krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkungen

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Spezifische Zielorgan-Toxizität bei einmaliger Exposition

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Spezifische Zielorgan-Toxizität bei wiederholter Exposition

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Aspirationsgefahr

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Spezifische Wirkungen im Tierversuch

Keine Daten verfügbar.

11.2. Angaben über sonstige Gefahren

Endokrinschädliche Eigenschaften

Keine Daten verfügbar.

Allgemeine Bemerkungen

Lösungsmittel:

Symptome: Depression des Zentralnervensystems. Leber- und Nierenschäden. Benommenheit. Erbrechen. Übelkeit. Schwindel. Bewusstlosigkeit. Bewusstseinsstörungen. Rauschzustand. Erythem (Rötung)

ABSCHNITT 12: Umweltbezogene Angaben

12.1. Toxizität

Das Produkt wurde nicht geprüft.

CAS-Nr.	Bezeichnung						
	Aquatische Toxizität	Dosis		[h] | [d]	Spezies	Quelle	Methode
67-63-0	2-Propanol; Isopropylalkohol; Isopropanol						
	Akute Fischtoxizität	LC50 mg/l	10000	96 h	Pimephales promelas	ECHA Dossier	OECD 203
	Akute Algentoxizität	ErC50 mg/l	1800		Scenedesmus quadricauda	ECHA Dossier	
	Akute Crustaceatoxizität	EC50 mg/l	>10000	48 h	Daphnia magna (24h)	ECHA Dossier	OECD 202

12.2. Persistenz und Abbaubarkeit

Das Produkt wurde nicht geprüft.

CAS-Nr.	Bezeichnung			
	Methode	Wert	d	Quelle
	Bewertung			
67-63-0	2-Propanol; Isopropylalkohol; Isopropanol			
	EU Method C.5/ EU Method C.6	53%	5	ECHA Dossier
	Leicht biologisch abbaubar (nach OECD-Kriterien)			

12.3. Bioakkumulationspotenzial

Das Produkt wurde nicht geprüft.

Verteilungskoeffizient n-Oktanol/Wasser

CAS-Nr.	Bezeichnung	Log Pow

67-63-0	2-Propanol; Isopropylalkohol; Isopropanol	0,05

12.4. Mobilität im Boden

Keine Daten verfügbar.

12.5. Ergebnisse der PBT- und vPvB-Beurteilung

Die Stoffe im Gemisch erfüllen nicht die PBT/vPvB Kriterien gemäß REACH, Anhang XIII.

12.6. Endokrinschädliche Eigenschaften

Keine Daten verfügbar.

12.7. Andere schädliche Wirkungen

Keine Daten verfügbar.

Weitere Hinweise

Nicht in die Kanalisation oder Gewässer gelangen lassen.

ABSCHNITT 13: Hinweise zur Entsorgung

13.1. Verfahren der Abfallbehandlung

Empfehlungen zur Entsorgung

Entsorgung gemäß den behördlichen Vorschriften. Wegen einer Abfallentsorgung den zuständigen zugelassenen Entsorger ansprechen. Nicht kontaminierte und restentleerte Verpackungen können einer Wiederverwertung zugeführt werden. Die Zuordnung der Abfallschlüsselnummern/Abfallbezeichnungen ist entsprechend EAKV branchen- und prozessspezifisch durchzuführen.
Vorschlagsliste für Abfallschlüssel/Abfallbezeichnungen gemäß EAKV/AVV:

Abfallschlüssel - ungebrauchtes Produkt

160305 ABFÄLLE, DIE NICHT ANDERSWO IM VERZEICHNIS AUFGEFÜHRT SIND; Fehlchargen und ungebrauchte Erzeugnisse; organische Abfälle, die gefährliche Stoffe enthalten; gefährlicher Abfall

Abfallschlüssel - verbrauchtes Produkt

160305 ABFÄLLE, DIE NICHT ANDERSWO IM VERZEICHNIS AUFGEFÜHRT SIND; Fehlchargen und ungebrauchte Erzeugnisse; organische Abfälle, die gefährliche Stoffe enthalten; gefährlicher Abfall

Abfallschlüssel - ungereinigte Verpackung

150110 VERPACKUNGSABFALL, AUFSAUGMASSEN, WISCHTÜCHER, FILTERMATERIALIEN UND SCHUTZKLEIDUNG (A.N.G.); Verpackungen (einschließlich getrennt gesammelter kommunaler Verpackungsabfälle); Verpackungen, die Rückstände gefährlicher Stoffe enthalten oder durch gefährliche Stoffe verunreinigt sind; gefährlicher Abfall

Entsorgung ungereinigter Verpackung und empfohlene Reinigungsmittel

Kontaminierte Verpackungen sind wie der Stoff zu behandeln.

ABSCHNITT 14: Angaben zum Transport

Landtransport (ADR/RID)

14.1. UN-Nummer:	UN 1993
14.2. Ordnungsgemäße UN-Versandbezeichnung:	ENTZÜNDBARER FLÜSSIGER STOFF, N.A.G. (Isopropanol)
14.3. Transportgefahrenklassen:	3
14.4. Verpackungsgruppe:	III
Gefahrzettel:	3

Klassifizierungscode:	F1
Sondervorschriften:	274 601
Begrenzte Menge (LQ):	5 L

Freigestellte Menge:	E1
Beförderungskategorie:	3
Gefahrnummer:	30
Tunnelbeschränkungscode:	D/E

Binnenschiffstransport (ADN)

14.1. UN-Nummer:	UN 1993
14.2. Ordnungsgemäße UN-Versandbezeichnung:	ENTZÜNDBARER FLÜSSIGER STOFF, N.A.G. (Isopropanol)
14.3. Transportgefahrenklassen:	3
14.4. Verpackungsgruppe:	III
Gefahrzettel:	3

Klassifizierungscode:	F1
Sondervorschriften:	274 601
Begrenzte Menge (LQ):	5 L
Freigestellte Menge:	E1

Seeschiffstransport (IMDG)

14.1. UN-Nummer:	UN 1993
14.2. Ordnungsgemäße UN-Versandbezeichnung:	FLAMMABLE LIQUID, N.O.S. (Isopropanol)
14.3. Transportgefahrenklassen:	3
14.4. Verpackungsgruppe:	III
Gefahrzettel:	3

Marine pollutant:	NO
Sondervorschriften:	223, 274, 955
Begrenzte Menge (LQ):	5 L
Freigestellte Menge:	E1
EmS:	F-E, S-E

Lufttransport (ICAO-TI/IATA-DGR)

14.1. UN-Nummer:	UN 1993
14.2. Ordnungsgemäße UN-Versandbezeichnung:	FLAMMABLE LIQUID, N.O.S. (Isopropanol)
14.3. Transportgefahrenklassen:	3
14.4. Verpackungsgruppe:	III
Gefahrzettel:	3

Sondervorschriften:	A3
Begrenzte Menge (LQ) Passenger:	10 L
Passenger LQ:	Y344
Freigestellte Menge:	E1
IATA-Verpackungsanweisung - Passenger:	355

IATA-Maximale Menge - Passenger:	60 L
IATA-Verpackungsanweisung - Cargo:	366
IATA-Maximale Menge - Cargo:	220 L

14.5. Umweltgefahren

UMWELTGEFÄHRDEND: Nein

14.6. Besondere Vorsichtsmaßnahmen für den Verwender

Siehe Abschnitt 8.

14.7. Massengutbeförderung auf dem Seeweg gemäß IMO-Instrumenten

nicht relevant.

ABSCHNITT 15: Rechtsvorschriften

15.1. Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch

EU-Vorschriften

Verwendungsbeschränkungen (REACH, Anhang XVII):

Eintrag 3

Angaben zur IE-Richtlinie 2010/75/EU (VOC):	Es liegen keine Informationen vor.
Angaben zur VOC-Richtlinie 2004/42/EG:	Es liegen keine Informationen vor.
Angaben zur SEVESO III-Richtlinie 2012/18/EU:	P5c ENTZÜNDBARE FLÜSSIGKEITEN

Zusätzliche Hinweise

Sicherheitsdatenblatt gemäß Verordnung (EG) Nr. 1907/2006 (geändert durch Verordnung (EU) Nr. 2020/878)
Das Gemisch ist als gefährlich eingestuft im Sinne der Verordnung (EG) Nr. 1272/2008 [CLP].
REACH 1907/2006 Anhang XVII, Nr. (Gemisch): 3, 40

Nationale Vorschriften

Beschäftigungsbeschränkung:	Beschäftigungsbeschränkungen für Jugendliche beachten (§ 22 JArbSchG).
Wassergefährdungsklasse:	1 - schwach wassergefährdend
Status:	Einstufung von Gemischen gemäß Anlage 1, Nr. 5 AwSV

15.2. Stoffsicherheitsbeurteilung

Eine Stoffsicherheitsbeurteilung wurde für folgende Stoffe in diesem Gemisch durchgeführt:
2-Propanol; Isopropylalkohol; Isopropanol

ABSCHNITT 16: Sonstige Angaben

Änderungen

Rev. 1.00; Neuerstellung 13.04.2021

Abkürzungen und Akronyme

ADR: Accord européen sur le transport des marchandises dangereuses par Route (Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf der Straße)
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
AGW: Arbeitsplatzgrenzwert
AVV: Abfallverzeichnisverordnung
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging of substances and mixtures
DNEL: Derived No Effect Level
d: day(s)
EAKV: Europäisches Abfallverzeichnis gemäß Entwurf Abfallverzeichnisverordnung

EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European LIst of Notified Chemical Substances
ECHA: European Chemicals Agency
EWC: European Waste Catalogue
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
h: hour
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NLP: No-Longer Polymers
N/A: not applicable
OECD: Organisation for Economic Co-operation and Development
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
REACH: Registration, Evaluation, Authorisation of Chemicals
SVHC: substance of very high concern
TRGS: Technische Regeln für Gefahrstoffe
UN/NU: United Nations (Vereinte Nationen)
VOC: Volatile Organic Compounds
VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe
WGK: Wassergefaehrdungsklasse

Einstufung von Gemischen und verwendete Bewertungsmethode gemäß Verordnung (EG) Nr. 1272/2008 [CLP]

Einstufung	Einstufungsverfahren
Flam. Liq. 3; H226	Auf Basis von Prüfdaten
Eye Irrit. 2; H319	Berechnungsverfahren

Wortlaut der H- und EUH-Sätze (Nummer und Volltext)

H225	Flüssigkeit und Dampf leicht entzündbar.
H226	Flüssigkeit und Dampf entzündbar.
H304	Kann bei Verschlucken und Eindringen in die Atemwege tödlich sein.
H315	Verursacht Hautreizungen.
H317	Kann allergische Hautreaktionen verursachen.
H319	Verursacht schwere Augenreizung.
H336	Kann Schläfrigkeit und Benommenheit verursachen.
H361	Kann vermutlich die Fruchtbarkeit beeinträchtigen oder das Kind im Mutterleib schädigen.
H411	Giftig für Wasserorganismen, mit langfristiger Wirkung.
H412	Schädlich für Wasserorganismen, mit langfristiger Wirkung.
EUH208	Enthält Zitronenöl. Kann allergische Reaktionen hervorrufen.

Weitere Angaben

Einstufung gemäß Verordnung (EG) Nr. 1272/2008 [CLP] - Einstufungsverfahren:
Gesundheitsgefahren: Berechnungsverfahren.
Umweltgefahren: Berechnungsverfahren.

Physikalische Gefahren: Auf Basis von Prüfdaten und / oder berechnet und / oder geschätzt.

Die Angaben in diesem Sicherheitsdatenblatt entsprechen nach bestem Wissen unseren Erkenntnissen bei Drucklegung. Die Informationen sollen Ihnen Anhaltspunkte für den sicheren Umgang mit dem in diesem Sicherheitsdatenblatt genannten Produkt bei Lagerung, Verarbeitung, Transport und Entsorgung geben. Die Angaben sind nicht übertragbar auf andere Produkte. Soweit das Produkt mit anderen Materialien vermengt, vermischt oder verarbeitet wird, oder einer Bearbeitung unterzogen wird, können die Angaben in diesem Sicherheitsdatenblatt, soweit sich hieraus nicht ausdrücklich etwas anderes ergibt, nicht auf das so gefertigte neue Material übertragen werden.

(Die Daten der gefährlichen Inhaltsstoffe wurden jeweils dem letztgültigen Sicherheitsdatenblatt des Vorlieferanten entnommen.)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Tint Remover

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Tint Remover

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Cosmetics

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	GW Cosmetics GmbH	
Street:	Achauerstrasse 49a	
Place:	A-2333 Leopoldsdorf	
Telephone:	+43 / 2235 / 47 940-0	Telefax: +43 / 2235 / 47 940-39
Responsible Department:	office@gwcosmetics.at	

1.4. Emergency telephone number:

+43 / 2235 / 47 940-0 (09:00-16:00 CET)

Further Information

This product is subject to the cosmetic regulation. This sheet was prepared on a voluntary basis.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Flammable liquid: Flam. Liq. 3
Serious eye damage/eye irritation: Eye Irrit. 2
Hazard Statements:
Flammable liquid and vapour.
Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Warning

Pictograms:

Hazard statements

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash hands thoroughly after handling.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Special labelling of certain mixtures

EUH208 Contains Lemon oil. May produce an allergic reaction.

Additional advice on labelling

Labelling according to cosmetic directive.

2.3. Other hazards

In use, may form flammable/explosive vapour-air mixture.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			12 - < 15 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
9005-65-6	Sorbitan monooleate, ethoxylated			1 - < 3 %
	500-019-9			
	Aquatic Chronic 3; H412			
84929-31-7	Lemon oil			0.1 - < 0.2 %
	284-515-8		01-2119495512-35	
	Flam. Liq. 3, Repr. 2, Skin Irrit. 2, Skin Sens. 1, Asp. Tox. 1, Aquatic Chronic 2; H226 H361 H315 H317 H304 H411			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
67-63-0	200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	12 - < 15 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = 5840 mg/kg		
9005-65-6	500-019-9	Sorbitan monooleate, ethoxylated	1 - < 3 %
	oral: LD50 = 25000 mg/kg		

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Take off immediately all contaminated clothing.

After inhalation

Remove person to fresh air and keep comfortable for breathing. In case of respiratory tract irritation, consult a physician.

After contact with skin

Take off immediately all contaminated clothing. Wash with plenty of water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. In all cases of doubt, or when symptoms persist, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO_2). Dry extinguishing powder. alcohol resistant foam.
In case of major fire and large quantities: Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide Carbon dioxide (CO_2).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

Remove all sources of ignition. Ventilate affected area.
Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes.

For non-emergency personnel

Personal protection equipment: see section 8

For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

Other information

Ventilate affected area.

6.4. Reference to other sections

Safe handling: see section 7
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation as well as local exhaustion at critical locations.
Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Flammable vapours can accumulate in head space of closed systems. In use, may form flammable/explosive vapour-air mixture. Heating causes rise in pressure with risk of bursting.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Protect against direct sunlight.
Ensure adequate ventilation of the storage area.
Make sure spills can be contained (e.g. sump pallets or kerbed areas).

Hints on joint storage

Do not store together with: Gas. Explosives. Flammable solids. Pyrophoric liquids and solids. Self-heating substances and mixtures. Substances and mixtures which, in contact with water, emit flammable gases. Oxidizing liquids. Oxidizing solids. ammonium nitrate. Self-reactive substances and mixtures. Organic peroxides. Non-combustible toxic substances. Radioactive substances. Infectious substances.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.
Protect against: UV-radiation/sunlight. heat. Humidity frost.
storage temperature: 15-25°C

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol		
Worker DNEL, long-term	inhalation	systemic	500 mg/m³
Consumer DNEL, long-term	inhalation	systemic	89 mg/m³
Worker DNEL, long-term	dermal	systemic	888 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	26 mg/kg bw/day

Consumer DNEL, long-term	dermal	systemic	319 mg/kg bw/day

PNEC values

CAS No	Substance
Environmental compartment	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol
Freshwater	140,9 mg/l
Freshwater (intermittent releases)	140,9 mg/l
Marine water	140,9 mg/l
Freshwater sediment	552 mg/kg
Marine sediment	552 mg/kg
Secondary poisoning	160 mg/kg
Micro-organisms in sewage treatment plants (STP)	2251 mg/l
Soil	28 mg/kg

8.2. Exposure controls



Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.
Provide adequate ventilation as well as local exhaustion at critical locations.

Protective and hygiene measures

The usual precautions for handling chemicals should be considered.
Keep away from food, drink and animal feedingstuffs.
Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Protect skin by using skin protective cream. Take off contaminated clothing.

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible). BS/EN 166

Hand protection

In case of prolonged or frequently repeated skin contact: Wear suitable gloves. (BS EN 374)
Suitable material: Butyl rubber.
Thickness of glove material: 0,5 mm
Breakthrough time >= 480 min. penetration time (maximum wearing period): ~ 120 min. (estimated)
In the case of wanting to use the gloves again, clean them before taking off and air them well. Before using check leak tightness / impermeability.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection necessary at:
Generation/formation of aerosols
Exceeding exposure limit values
Insufficient ventilation

Suitable respiratory protective equipment: Combination filtering device (EN 14387) Type: A/P1-3
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	not determined
Odour:	characteristic
pH-Value:	not determined

Changes in the physical state

Melting point:	not applicable
Boiling point or initial boiling point and boiling range:	not determined
Flash point:	33 °C

Explosive properties

In use, may form flammable/explosive vapour-air mixture.

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined

Oxidizing properties

none.

Vapour pressure: (at 20 °C)	not determined
Density:	not determined
Water solubility:	miscible.

Solubility in other solvents

not determined

Viscosity / dynamic: (at 40 °C)	not determined
Viscosity / kinematic: (at 20 °C)	not determined
Relative vapour density:	not determined
Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined

9.2. Other information

Solid content:	not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.
Refer to chapter 10.5.

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat. moisture.
In use may form flammable/explosive vapour-air mixture.
Heating causes rise in pressure with risk of bursting.

10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong. Strong acid. strong alkalis.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.
Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

No data available.

Acute toxicity

Based on available data, the classification criteria are not met.
The product has not been tested.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 5840 mg/kg	Rat	ECHA dossier	
	dermal	LD50 > 5000 mg/kg	Rabbit	ECHA dossier	
9005-65-6	Sorbitan monooleate, ethoxylated				
	oral	LD50 25000 mg/kg	Mouse.	externes MSDS	

Irritation and corrosivity

Causes serious eye irritation.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Contains Lemon oil. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No data available.

11.2. Information on other hazards

Endocrine disrupting properties

No data available.

Further information

Solvent:

Symptoms: Depression of the central nervous system. Liver and kidney damage. drowsiness. vomiting. Nausea. Dizziness. unconsciousness. Impaired consciousness. Intoxication. erythema (redness)

SECTION 12: Ecological information

12.1. Toxicity

The product has not been tested.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol						
	Acute fish toxicity	LC50 mg/l	10000	96 h	Pimephales promelas	ECHA dossier	OECD 203
	Acute algae toxicity	ErC50 mg/l	1800		Scenedesmus quadricauda	ECHA dossier	
	Acute crustacea toxicity	EC50 mg/l	>10000	48 h	Daphnia magna (24h)	ECHA dossier	OECD 202

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
	EU Method C.5/ EU Method C.6	53%	5	ECHA dossier
	Easily biodegradable (concerning to the criteria of the OECD)			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

List of Wastes Code - used product

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (Isopropanol)
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Classification code:	F1
Special Provisions:	274 601
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	30
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (Isopropanol)
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Classification code:	F1
Special Provisions:	274 601
Limited quantity:	5 L

Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 1993

14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Isopropanol)

14.3. Transport hazard class(es): 3

14.4. Packing group: III

Hazard label: 3

Marine pollutant: NO
Special Provisions: 223, 274, 955
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1993

14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Isopropanol)

14.3. Transport hazard class(es): 3

14.4. Packing group: III

Hazard label: 3

Special Provisions: A3
Limited quantity Passenger: 10 L
Passenger LQ: Y344
Excepted quantity: E1
IATA-packing instructions - Passenger: 355
IATA-max. quantity - Passenger: 60 L
IATA-packing instructions - Cargo: 366
IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

See section 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture): 3, 40

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
propan-2-ol; isopropyl alcohol; isopropanol

SECTION 16: Other information

Changes

Rev. 1.00; Initial release 13.04.2021

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging of substances and mixtures
DNEL: Derived No Effect Level
d: day(s)
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European LIst of Notified Chemical Substances
ECHA: European Chemicals Agency
EWC: European Waste Catalogue
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
h: hour
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NLP: No-Longer Polymers
N/A: not applicable
OECD: Organisation for Economic Co-operation and Development
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
REACH: Registration, Evaluation, Authorisation of Chemicals
SVHC: substance of very high concern
TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations
VOC: Volatile Organic Compounds

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Eye Irrit. 2; H319	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains Lemon oil. May produce an allergic reaction.

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:
Health hazards: Calculation method.
Environmental hazards: Calculation method.
Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

SAFETY INFORMATION

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name **ONE DUST SPRAY**

Product number **40419**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Hairstyling product

1.3. Details of the supplier

DESIGN PROFESSIONAL A/S
SINTRUPVEJ 25B
8220 BRABRAND
DENMARK

Tel: +45 8624 9055

1.4. Emergency telephone number

National emergency telephone number 112 or 999

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards

Aerosol 1 - H222, H229

Health hazards

Not Classified

Environmental hazards

Not Classified

Please note that cosmetic aerosols are exempt from regulation CLP 1272/2008. The requirements of the Aerosol Dispensers Directive (ADD) 75/324/EEC do apply to this product. In addition to the H and P statements specified in this section, there are additional labeling requirements in 75/324/EEC.

Human health

Vapours and spray/mists in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache, Fatigue, Dizziness, Nausea, vomiting.

Physicochemical

Extremely flammable. Pressure chamber may explode in the event of fire.

2.2. Label elements

Pictogram

Signal word Danger

Hazard statements

H222 Extremely flammable aerosol.

H229 Pressurised container: may burst if heated

Precautionary statements	P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.3. Other hazards

-

SECTION 3: Composition/information on ingredients

3.1. Mixtures

For information on composition of this product, please see the INCI-list on the product.

For cosmetics and hygiene products, information about the product content and safe handling has to be indicated on the packaging.

For further information please see REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006, Article 2.6 b.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Get medical attention if any discomfort continues.

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Ingestion

Drink a few glasses of water or milk.

Skin contact

Wash skin thoroughly with soap and water.

Eye contact

Rinse with water. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

General information

Solvent abuse can kill instantly.

Inhalation

Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion

May cause nausea, headache, dizziness and intoxication.

Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor

No specific recommendations.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguish with foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Containers can burst violently or explode when heated, due to excessive pressure build-up. Containers can burst violently or explode when heated, due to excessive pressure build-up. Extremely flammable aerosol.

5.3. Advice for firefighters

Protective actions during firefighting

Use water to keep fire exposed containers cool and disperse vapours.

Special protective equipment for firefighters

Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

For personal protection, see Section 8.

6.2. Environmental precautions

Environmental precautions

Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Large Spillages: Contain and absorb spillage with sand, earth or other non-combustible material. Small Spillages: Wipe away with paper or textile fabric.

6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Keep away from heat, sparks and open flame. Protect against direct sunlight.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Store in tightly closed, original container in a dry, cool and well ventilated place.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits -

8.2. Exposure controls

Eye/face protection
Eye protection is normally not needed.

Hand protection
Hand protection not required.

Hygiene measures
When using do not eat, drink or smoke.

Respiratory protection
Respiratory protection is not needed.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance
Aerosol.

Odour
Characteristic.

Flash point
Technical impossibility to obtain the data.

Relative density
~0.5-1

Solubility(ies)
Soluble in water.

9.2. Other information

Other information
Not relevant.

Volatile organic compound
No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability
Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Not known.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects

No data is available regarding the preparation itself.

Inhalation

Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting. May cause respiratory system irritation.

Ingestion

May cause discomfort if swallowed.

Skin contact

Skin irritation should not occur when used as recommended. The product contains a small amount of sensitising substance. May cause sensitisation or allergic reactions in sensitive individuals.

Eye contact

May cause temporary eye irritation.

Acute and chronic health hazards

This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

SECTION 12: Ecological Information

Ecotoxicity

There are no data on the ecotoxicity of this product.

12.1. Toxicity

No data is available regarding the preparation itself.

12.2. Persistence and degradability

Persistence and degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility

No information available

12.5. Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

No information required.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

The manufacturer of this product complies with the rules and regulations of the European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste, by paying packaging fees for disposal and recycling of packaging waste.

Disposal methods

The plastic lid and valve are sorted as plastic. Empty aerosols are sorted as scrap metal. Residues and non-empty containers should be taken care of as hazardous waste according to local and national regulations.

Waste class

Non empty containers: EWC code 14 06 03*
Empty containers: EWC code 15 01 04.

SECTION 14: Transport information

General Aerosols may be carried domestically as limited quantities (1L) as long as each package does not exceed 30 kg in cardboard boxes or 20 kg on trays with shrink- or stretch wrapping. Each package shall be marked with diamond-shaped area, the top and bottom part is black, surrounded by a line that measures at least 100 mm x 100 mm.

14.1. UN number

UN No. (ADR/RID)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950
UN No. (ADN)	1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AEROSOLS
Proper shipping name (IMDG)	AEROSOLS
Proper shipping name (ICAO)	AEROSOLS
Proper shipping name (ADN)	AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID classification code	5F
ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1
ADN class	2.1

Transport labels

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-D, S-U
ADR transport category	2
Tunnel restriction code	(D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

COUNCIL DIRECTIVE of May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers.

EU legislation

Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information

This mixture is classified as a cosmetic product and not subject to any legal requirements for safety data sheet and its design.

Issued by HS&E Manager.

Hazard statements in full

H222 Extremely flammable aerosol.

H229 Pressurised container: may burst if heated

SAFETY INFORMATION

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name **33544**

Product number **ONE SPRAY WAX**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Hairstyling product

1.3. Details of the supplier

DESIGN PROFESSIONAL A/S
SINTRUPVEJ 25B
8220 BRABRAND
DENMARK

Tel: +45 8624 9055

1.4. Emergency telephone number

National emergency telephone number 112 or 999

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards

Aerosol 1 - H222, H229

Health hazards

Not Classified

Environmental hazards

Not Classified

Please note that cosmetic aerosols are exempt from regulation CLP 1272/2008. The requirements of the Aerosol Dispensers Directive (ADD) 75/324/EEC do apply to this product. In addition to the H and P statements specified in this section, there are additional labeling requirements in 75/324/EEC.

Human health

Vapours and spray/mists in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache, Fatigue, Dizziness, Nausea, vomiting.

Physicochemical

Extremely flammable. Pressure chamber may explode in the event of fire.

2.2. Label elements

Pictogram

Signal word Danger

Hazard statements

H222 Extremely flammable aerosol.

H229 Pressurised container: may burst if heated

Precautionary statements	P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.3. Other hazards

-

SECTION 3: Composition/information on ingredients

3.1. Mixtures

For information on composition of this product, please see the INCI-list on the product.

For cosmetics and hygiene products, information about the product content and safe handling has to be indicated on the packaging.

For further information please see REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006, Article 2.6 b.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Get medical attention if any discomfort continues.

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Ingestion

Drink a few glasses of water or milk.

Skin contact

Wash skin thoroughly with soap and water.

Eye contact

Rinse with water. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

General information

Solvent abuse can kill instantly.

Inhalation

Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion

May cause nausea, headache, dizziness and intoxication.

Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor

No specific recommendations.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguish with foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Containers can burst violently or explode when heated, due to excessive pressure build-up. Containers can burst violently or explode when heated, due to excessive pressure build-up. Extremely flammable aerosol.

5.3. Advice for firefighters

Protective actions during firefighting

Use water to keep fire exposed containers cool and disperse vapours.

Special protective equipment for firefighters

Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

For personal protection, see Section 8.

6.2. Environmental precautions

Environmental precautions

Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Large Spillages: Contain and absorb spillage with sand, earth or other non-combustible material. Small Spillages: Wipe away with paper or textile fabric.

6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Keep away from heat, sparks and open flame. Protect against direct sunlight.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Store in tightly closed, original container in a dry, cool and well ventilated place.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits -

8.2. Exposure controls

Eye/face protection
Eye protection is normally not needed.

Hand protection
Hand protection not required.

Hygiene measures
When using do not eat, drink or smoke.

Respiratory protection
Respiratory protection is not needed.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance
Aerosol.

Odour
Characteristic.

Flash point
Technical impossibility to obtain the data.

Relative density
~0.5-1

Solubility(ies)
Soluble in water.

9.2. Other information

Other information
Not relevant.

Volatile organic compound
No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability
Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Not known.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects

No data is available regarding the preparation itself.

Inhalation

Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting. May cause respiratory system irritation.

Ingestion

May cause discomfort if swallowed.

Skin contact

Skin irritation should not occur when used as recommended. The product contains a small amount of sensitising substance. May cause sensitisation or allergic reactions in sensitive individuals.

Eye contact

May cause temporary eye irritation.

Acute and chronic health hazards

This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

SECTION 12: Ecological Information

Ecotoxicity

There are no data on the ecotoxicity of this product.

12.1. Toxicity

No data is available regarding the preparation itself.

12.2. Persistence and degradability

Persistence and degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility

No information available

12.5. Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

No information required.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

The manufacturer of this product complies with the rules and regulations of the European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste, by paying packaging fees for disposal and recycling of packaging waste.

Disposal methods

The plastic lid and valve are sorted as plastic. Empty aerosols are sorted as scrap metal. Residues and non-empty containers should be taken care of as hazardous waste according to local and national regulations.

Waste class

Non empty containers: EWC code 14 06 03*
Empty containers: EWC code 15 01 04.

SECTION 14: Transport information

General Aerosols may be carried domestically as limited quantities (1L) as long as each package does not exceed 30 kg in cardboard boxes or 20 kg on trays with shrink- or stretch wrapping. Each package shall be marked with diamond-shaped area, the top and bottom part is black, surrounded by a line that measures at least 100 mm x 100 mm.

14.1. UN number

UN No. (ADR/RID)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950
UN No. (ADN)	1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AEROSOLS
Proper shipping name (IMDG)	AEROSOLS
Proper shipping name (ICAO)	AEROSOLS
Proper shipping name (ADN)	AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID classification code	5F
ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1
ADN class	2.1

Transport labels

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-D, S-U
ADR transport category	2
Tunnel restriction code	(D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

COUNCIL DIRECTIVE of May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers.

EU legislation

Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information

This mixture is classified as a cosmetic product and not subject to any legal requirements for safety data sheet and its design.

Issued by HS&E Manager.

Hazard statements in full

H222 Extremely flammable aerosol.

H229 Pressurised container: may burst if heated

ONELY
DRY SHAMPOO

MSDS creation date: 30/03/2018
Revision date: 30/03/2018
Print date: 30/03/2018

1 IDENTIFICATION OF THE COMPANY

1.1 Identifier Mixture / product: ONELY Dry Shampoo

EAN Code: 8022033103222

1.2 Relevant identified uses of the mixture: Dry Shampoo (for hair care)

Uses advised against: The pertinent uses are listed above. Other uses are not recommended.

1.3 Distributed by

FARMAVITA s.r.l.
Via Garibaldi 82/84
20020 Locate Varesino (Como)
Tel.: 0331833467 Fax: 0331-833827
Email: info@farmavita.it
Sito: www.farmavita.it

1.4 Emergency telephone: Italian Poison centers:

CENTRO ANTIVELENI ROMA - POLICLINICO A.GEMELLI - UNIVERSITA' CATTOLICA DEL SACRO CUORE
Tel. 06.3054343

CENTRO ANTIVELENI BERGAMO - OSPEDALI RIUNITI DI BERGAMO
Tel. 800 88.33.00

CENTRO ANTIVELENI FIRENZE -AZIENDA OSPEDALIERA CAREGGI
Tel. 055.7947819

CENTRO ANTIVELENI FOGGIA - AZIENDA OSPEDALIERO UNIVERSITARIA DI FOGGIA
Tel.0881.732326

CENTRO ANTIVELENI MILANO - OSPEDALE NIGUARDA CA' GRANDA
Tel. 02.66101029

CENTRO ANTIVELENI NAPOLI - AZIENDA OSPEDALIERA CARDARELLI
Tel. 081.7472870

CENTRO ANTIVELENI PAVIA - FONDAZIONE SALVATORE MAUGERI
Tel. 0382.24444

2 HAZARDS IDENTIFICATION

Classification of cosmetic product

The mixture is an hair spray for hair and falls into the category of cosmetics, however it is into a container under pressure and so the product falls into the category of aerosols.
• Classification system: The classification is based on the directives: 75 / 324CE - 94/1 EC - 2008 / 47CE (aerosol) - EU 2013/10, and on the following regulations: Regulation 807/2003 CE
Regulation 1223 / 2009CE

GHS02 flame
Signal Word: DANGER
Flam. Aerosol 1, H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.

Label elements

DANGER
H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.
P251: Do not pierce or burn, even after use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211: Do not spray on an open flame or other ignition source.
P410 + P412: Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.
P102: Keep out of reach of children.
P261: Avoid breathing spray
Do not spray in eyes

INGREDIENTS (INCI): Butane Propane Isobutane, Alcohol Denat, Tapioca Starch, Polymethylsilsesquioxane, Oryza Sativa (Rice) Starch, Cetrimonium Chloride, Panthenol, Phenyl Trimethicone, Silica, Parfum (Fragrance), Citronellol.

Other hazards: The mixture contains substances considered PBT (persistent, bioaccumulative and toxic) and / or very persistent and very bioaccumulative vPvB) in Annex XIII of Regulation 1907 / 2006CE (REACH).

3 COMPOSITION / INFORMATION ON INGREDIENTS

- Mixture of following substances (variable composition) 70%-75%:

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx): 0%-36%**

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx): 2%-30%**

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx): 21%-73%**

Regulation (EC) No. 1272/2008 (CLP):
GHS02 Flam. Gas 1, H220 Extremely flammable gas
GHS04 Press Gas. Gas H280 Contains gas under pressure; may explode if heated.

- Ethyl alcohol - Alcohol Denat. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157): 10%-15%
Regulation (EC) No. 1272/2008 (CLP):
GHS02, Flam. Liq. 2, H225 Highly flammable liquid and vapour.

Full text of hazard symbols and H-phrases of the ingredients are listed in section 16.

4 FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation:	In case of illness take away from the contaminated area, if breathing is irregular or stops, make artificial respiration. Do not give drinks or medications to the patient. If the person is unconscious, take the position and seek medical advice.
Eye contact:	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical attention if necessary
Skin contact:	Wash with water. If irritation persists, seek medical advice.
Ingestion:	If you were to verify the ingestion, do not induce vomiting, in order to avoid the risk of aspiration of the product into the trachea, with possible pulmonary congestion. Keep at rest. Seek medical advice.

4.2 Most important symptoms of both acute and delayed: not available

4.3. Indication of any immediate medical attention and special treatment: not available

5 FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media:	Fire extinguishers, powder or foam.
Unsuitable extinguishing media:	Do not use water jet. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.
5.2 Special hazards arising from the substance or mixture:	Excess pressure may form in containers exposed to fire at a risk of explosion. Avoid to breathe combustion products (carbon oxide, toxic pyrolysis products, etc.).
5.3 Advice for firefighters:	Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Keep containers cool by spraying with water if exposed to fire. Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), self-respirator (self-protector).

6 MEASURES IN CASE OF ACCIDENTAL RELEASE

6.1 Personal precautions:	Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) In the case of solid product to avoid the formation of dust spraying the product with water if there are no contraindications. If dust or vapors are present use breathing equipment. Stop leak if safe to do so. Do not handle damaged containers or leaked product before donning appropriate protective gear. Keep away unprotected persons. For information on risks for the environment and health, protection of the respiratory airways, ventilation and individual protective measures refer to the other sections of this sheet.
6.2 Environmental precautions:	Do not discharge into drains/surface waters/groundwater
6.3 Methods and materials for containment and cleaning up:	For liquid products, suck into a suitable container (made of material compatible with the product) and soak up the residual product with suitable absorbent material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc.). Collect the majority of the remaining material and deposit in containers for disposal. The disposal of contaminated material must be made in accordance with point 13.
6.4 Reference to other sections:	See also section. 8 and13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling:	Avoid the accumulation of electrostatic charges. Vapours may ignite with explosion, it is, therefore, necessary to avoid their accumulation keeping the windows and doors opened with adequate ventilation. Without adequate ventilation, the vapors may accumulate and ignite. Open and handle container with care. Pressurized container. Do not pierce or burn the container or tamper with the valve, neither after use. Do not use near open flames or other sources of possible injection. Do not turn on electrical appliances until the vapors have evaporated.
7.2 Conditions for safe storage, including any incompatibilities:	Keep containers upright and in secure position in order to avoid falls or collisions. Protect from sunlight, heat sources and do not keep at temperatures above 50 ° C. Keep away from oxidising agents and strong acid or alkaline products. Store in places intended for flammable products, with appropriate ventilation and electrical system. The product can accumulate electrostatical charges.
7.3 Specific end uses:	not provided

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters: Data refer to the individual ingredients listed in section 3:

Mixture of following substances (variable composition):

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx)**
- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx)**
- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx)**

Dangerous concentrations by professional inhalation are provided by ACGIH TLV 2010 tables as follows:
TLV TWA Average weighted concentration for working day of 8 hours (chronic exposure) to which almost all workers may be repeatedly exposed day after day without adverse effects:
Alkanes C1-C4: 1000 ppm
ACGIH also recommended that the exposure limit values of biologically inert particles, without a value TLV, is maintained below 3 mg / m^3 for the respirable particles; to below 10 mg / m^3 for the inhalable.
For monitoring / control conditions, it is suggested to refer to the current legislation.

Values DNEL (Derived Non Effect) and DMEL (Derived Minimum Effect Level):
Not derived in that the mixture contains no hazardous components for the health.
It is suggested to stick to the values according to the above exposure limits for all applications.
(Refer to Section 15)

Values PNEC (S) (Predicted No Effect Concentration):
PNEC values in water (continuous release):
Not derived as the mixture does not contain hazardous components for the environment
PNEC values in water (intermittent release):
Not derived because the mixture does not contain hazardous components for the environment
PNEC values in soil
Not derived because the mixture does not contain hazardous components for the environment
PNEC values for sedimentation:
Not derived because the mixture does not contain hazardous components for the environment
PNEC values in sewage treatment plants:
Not derived because the mixture does not contain hazardous components for the environment

(Source: ECHA - MSDS of substance)

ETHYL ALCOHOL - ALCOHOL DENAT. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157):

TLWV / TWA: 1880mg / m3 (1000 ppm)
Inhalation DNEL (short term, local): 1900mg / m3 (1000ppm)
Inhalation DNEL (long-term, systemic): 950mg / m3 (500ppm)
Contact DNEL (long-term, systemic): 343mg / kgbw / day
Source: IUCLID section 7 general summary.
PNEC aqua (freshwater): 0.96mg / l
PNEC aqua (sea water): 0.79mg / l
PNEC aqua (intermittent releases): 2.75mg / l
PNEC STP: 580mg / l
PNEC sediment (fresh water): 3.6mg / kgdw
PNEC sediment (sea water): 2.9mg / kgdw
PNEC soil: 0.63 mg / kgdw
PNEC oral: 0.38g / kg food

(Source: ECHA - MSDS of substance)

8.2 personal and environmental exposure control:

Respiratory protection: not necessary, however, if the operating conditions require it (in case of very long use of the product), use a suitable mask for organic solvents.

Hand protection:	For prolonged use of this product, use protective gloves to work Category I (EN 374) as latex, PVC or equivalent. For the final choice of work glove material must be considered: degradation, breakage times and permeation. In the case of preparations the resistance of protective gloves should be checked before use, as it expected. The gloves have a limit depends on the duration of exposure.
Eye protection:	Not necessary, however, in case of prolonged use of this product, use eye protection. (Ref. Standard EN 166).
Skin protection:	Use antistatic clothing, preferably in natural fibers. After contact with the product, all skin wetted parts must be washed.
Thermal hazards:	not available
Environmental exposure controls:	avoid littering

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 General informations:

- appearance:	colorless liquid under pressure (aerosol)
- odour:	scented

9.2 Important information on health, safety and the environment:

- pH	not applicable
- Melting point / freezing point:	not available
- Point / boiling range:	not available
- Flash point:	From -104 ° C to -80 ° C (propellant)
- Flammability (solid, gas):	extremely flammable
- Upper / lower flammability limits:	Lim. Inf. 1.8% - Sup. 9.5% vol / vol in the air (propellant)
- Explosive properties:	not available
- Oxidizing properties:	not available
- Vapor pressure:	not available
- relative density:	0.91 - 0.93 (liquid without propellant)
- Solubility:	
- Water solubility:	partially soluble
- Fat solubility (n-hexane):	partially soluble
- Partition coefficient: (N-octanol / water)	not available
- viscosities	not available
- Vapor density:	not available
- Evaporation rate:	not available
- Auto-ignition temperature	from 400 to 490 ° C (propellant)
- Decomposition temperature	not available
9.3 Further information:	VOC (Directive 1999/13 / EC): 85.6% (w / w) - 570g / l

10 STABILITY AND REACTIVITY

10.1 Reactivity	See sec. 10.4 and 10.6
10.2 chemical stability	The product is stable if properly stored.
10.3 Possibility of hazardous reactions	See sec. 10.5
10.4 Conditions to avoid:	The aerosol containers overheated to temperatures exceeding 50 ° C., They may deform, burst and be thrown to considerable distances. The preparation is stable at the handling and storage conditions

		recommended in paragraph HANDLING AND STORAGE. Avoid overheating, electrostatic discharge and all ignition sources. Avoid exposure to sources of heat and open flames.
10.5	Incompatible materials:	Keep away from oxidizing agents, chemicals or basic products, in order to avoid corrosion of the container.
10.6	Hazardous decomposition products:	When heated or in case of fire, potentially vapours dangerous to health can be released

11 TOXICOLOGICAL INFORMATION

ATE MIX (oral) >2000 mg/l (calculated)

Acute toxicity Ingestion: Product ingestion is an unlikely event. Any ingestion causes irritation to gastrointeric tract. Other symptoms may be nausea, vomiting.
Acute inhalation toxicity: inhalation of this product is an individual low probability event.
Contact with the skin: the product is a cosmetic suitable for contact with the skin. People allergic to one of the substances listed in INGREDIENTS may have redness
Eye contact: Irritation with redness and tearing phenomena

TOXICITY INFORMATION OF INGREDIENTS INDICATED IN SECTION 3:

Mixture of following substances (variable composition):

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx)**
- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx)**
- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx)**

INFORMATION ON TOXICOLOGICAL EFFECTS
Literature data concerning the toxicokinetic studies about the short chain alkanes (C1-C4), show how these alkanes exist in the vapor form at room temperature, and they are poorly absorbed. If the exposure involves an absorption (situation of higher concentrations), the latter would not be particularly relevant: there is little evidence of metabolism, as such mixture if it were absorbed, would normally be quickly exhaled.
In addition the studies, it would appear that the absorption tends to increase with increasing molecular weight. Unbranched molecules would be more easily absorbed than those branched and the aromatic molecules would be more easily absorbed than paraffin.
The main toxicological studies have been performed on rats.

ACUTE TOXICITY
The mixture at room temperature and atmospheric pressure, is presented as a colorless gas.
Consequently the information relating to acute toxicity by the oral and inhalation are not particularly relevant.

ACUTE TOXICITY FOR ORAL
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture comes to a gaseous state at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

ACUTE TOXICITY BY INHALATION
The vapors may cause narcotic effects.
High inhaled air concentrations can lead to unconsciousness and asphyxiation from lack of oxygen.
For propane:
Key study propane:
LC50 rat (male / female) [15 minutes]: 800000 ppm
LC50 rat (male / female) [15 minutes]: 14442738 mg / m3
LC50 rat (male / female) [15 minutes]: 1443 mg / L
[Source: DG Clark and Tiston DJ (1982)]

Isobutane
Key study isobutane
LC50 rat (male) [2 hours] Gas Phase: 520400 ppm
[Source: Aviado (1982)]

Butane
rat LC50 [inhalation]: 658 mg / l 4 h (literature value)
No labeling required - related to substance: Butane
human studies [general population] have shown that the smell is not detectable below 20000 ppm (2%) and a concentration of 100,000 ppm (10%) has produced mild irritation to eyes, nose and respiratory tract but caused slight dizziness within a few minutes [evidenze_Anon weight of 198, Herman (Chairman 1966)

ACUTE TOXICITY DERMAL
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

CORROSION / IRRITATION
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns.

SERIOUS EYE DAMAGE / IRRITATION SERIOUS
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted becasuse the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns.

RESPIRATORY OR SKIN SENSITIZATION
respiratory sensitization
There are no studies that indicate this type of effect
skin sensitization
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted becasuse the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests. Contact with liquefied gas can cause cold burns

GERM CELL MUTAGENICITY
Experiments in vitro and on animals, we do not tell no evidence genotoxicity. Moreover the mixture may contain as an impurity 1,3-butadiene in a concentration of less than 0.1%; consequently it is not classified mutagenic in accordance with legislation on hazardous substances.
Information regarding propane
Genetic toxicity in vitro - Key study propane
Ames test in Salmonella typhimurium [OECD 471]
No evidence of mutagenic effects
Metabolic activation: ao no
Method: Mutagenicity (Salmonella tiphymurium - wise reversion)
[Source: Kirwin CJ Thomas and WC (1980)]

Information concerning the Liquefied Petroleum Gas [LPG Key study]
Test in vivo
Micronucleus test: rats - inhalation - [OECD Guideline 474]
Result: negative
[Source: Huntingdon Life Sciences (HLS), 2009b]

Carcinogenicity
There is no indication or evidence of carcinogenicity. The present state of knowledge, the test results for mutagenicity and toxicity with repeated administration, we should not expect a carcinogenic effect. Moreover the mixture may contain as an impurity 1,3-butadiene in a concentration of less than 0.1%; consequently it is not classified carcinogenic according to the Dangerous Substances legislation.

TOXIC TO REPRODUCTION
Reproductive toxicity
Literature data revealed no consistent evidence of toxicity for fertility; therefore the mixture is not classified as toxic for reproduction according to the Dangerous Substances legislation.
Here are the information about the individual substances in the mixture:

For propane:
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily

NOAEL (No Observed Adverse Effect Level) Parents: 21641 mg / L
NOAEL F1: 21,641 mg / L
Method: OECD Test Guideline 422
In animal studies (422 OECD, research screening) There were no effects that harm foetuses clues

Isobutane:
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) parents: 7,131 mg / L
NOAEL F1: 21,394 mg / L
Method: OECD Test Guideline 422

Butane:
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L
NOAEL F1: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there have been no indications of effects that harm foetuses.
Information concerning the Liquefied Petroleum Gas [LPG Key study]
in vivo study
Rat - Inhalation Exposure 13 wk., 6h / g., 5g / wk.
OECD Guideline413 EPA OPPTS870.4365 (90-
NOAEC: 10000 ppm
(M / F) no effect on the menstrual cycle, spermatogenesis, mobility and sperm count
Source: Huntingdon Life Sciences (HLS), 2009b]

Developmental Toxicity / Teratogenicity
Literature data revealed no consistent evidence of developmental toxicity / teratogenicity: the main impurities of the mixture mean that the latter is not classified as toxic for reproduction within the meaning of the Dangerous Substances legislation.
Here are the information about the individual substances in the mixture

For propane
Screening for toxicity inherent in the reproductive / developmental
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21641 mg / L
NOAEL F1: 21,641 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication of effects about harm on foetuses.

Isobutane:
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L
NOAEL maternal: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication about damage on development.

For butane
Inhalation rat (male / female)
Number of exposure: daily
NOAEL (No Observed Adverse Effect Level) Parents: 21,394 mg / L
NOAEL maternal: 21,394 mg / L
Method: OECD Test Guideline 422
In animal research (OCSE 422, research screening) there wasn’t indication about damage on development.

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE
No information

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE
Oral
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. Extremely volatile and flammable at room temperature, it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with

any significant concentrations in tests.

Cutaneous
According to point 2 of Annex XI of the EC Regulation No. 1907/2006 (REACH), such testing may be omitted because the mixture is a gas at atmospheric temperature and pressure. It is extremely volatile and flammable at room temperature and it tends to form explosive mixtures with air. A high risk of fire and explosion would be associated with any significant concentrations in tests.

Inhalation
Literature data showed no consistent evidence due to inhalation: Literature data about inhalation showed no consistent evidence: the mixture with the main impurities is not classified it as toxic according to the Dangerous Substances legislation

Here are the information about the individual substances in the mixture

propane
From studies conducted for a period of 6 weeks old on male and female rats they were not observed neurological, hematologic or clinical effects. At doses of 12,000 ppm for male animals showed a 25% decrease in weight during the first week of exposure.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is 12,000 ppm (equivalent to 21 641 mg / m3).

Isobutane
From studies conducted for a period of 6 weeks old on male and female rats they were not observed neurological, hematologic or clinical effects.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is of 21,394 mg / L [OECD TG 422] method.

Butane
From studies conducted for a period of 6 weeks on male and female rats they were not observed neurological, hematologic or clinical effects.
The lowest concentration at which adverse effects are observed (LOAEC) in this study is of 21,394 mg / L [OECD TG 422] method.
The vapors may cause narcotic effects
High concentrations in the air inhaled can lead to unconsciousness and asphyxiation due to lack of oxygen.

DANGER ASPIRATION
Not applicable. The mixture at room temperature and atmospheric pressure, is a colourless gas.

FURTHER INFORMATION
Under normal conditions of use, the mixture can be used in safety according to the above. However, the deliberate abuse of high concentrations of vapor, even for short periods, may result in unconsciousness or prove fatal.

ETHYL ALCOHOL - ALCOHOL DENAT. (CAS N°64-17-5; EINECS N° 200-578-6; REACH N° 01-2119457610-43-0157):

Acute Oral Toxicity (OECD401 equivalent): LD50 Rat: 6.2 - 15g / kgbw
For Inhalation (OECD403 equivalent): Rat LC50 (4hr)> 50mg / l
Cute: Data not available.
Available data indicate that this is not classifiable.
Source IUCLID 7.2 Chapter summary.

Corrosion / irritation
All acute exposure studies available 4-hour show that is not irritating nor animal (OECD404 or equivalent) nor on men. In humans, studies of repeated doses show that there are no irritation following repeated applications on a whole day under occlusive conditions for a maximum of 12 days. Additional exposures cause irritation if necessary.
The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.3 Chapter summary.

Serious eye damage / eye irritation
Studies carried out in accordance with OECD Guideline 405 show that causes moderate eye irritation.
All effects disappear in 8-14 days. The type of response is not sufficient to place the substance in accordance with Directive 67/548 but it is sufficient, in terms of conjunctival response, to place the substance in irritant category 2 under Regulation 1272/2008.
Source IUCLID 7.3 Chapter Summary

respiratory or skin sensitization study of swelling rat: negative
Local Lymph Node Assay (OECD429): Negative
Cavia higher education: (OECD406) Negative
respiratory sensitization: Data not available
The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.4 Chapter Summary

Germ cell mutagenicity studies on bacterial reverse mutation
(OECD471): all negative
In vitro cytogenetic studies (eg OECD473): Negative senzaattivazione metabolic. No studies with metabolic activation
In vitro gene mutation studies on mammals (efOECD476): negative with and without metabolic activation

In vivo micro nucleic acid testing (OECD474): there are no comprehensive evidence showing that ethanol cause micronuclei in the bone marrow
In vivo chromosomal aberration test (OECD475): negative.
dominant lethal essay (OECD478): it is unlikely that ethanol produces effects until the maximum tolerated dose. There is some evidence from in vitro studies, that ethanol can cause genotoxic and clastogenic effects. However the observed effects are weak and need only at very high doses. The conclusion of the evidence is that ethanol is not genotoxic. The available data indicate that they are not satisfied with the classification criteria.
Source IUCLID 7.6 Chapter Summary

Carcinogenicity Rat: NOAEL> 3000 mg / kg
Cats: female NOAEL> 4400mg / kg, male
NOAEL> 4250mg / kg based on historical control data, BMDL10 = 1400mg / kg based on concurrent control data.
Source IUCLID 7.7 Chapter Summary
In humans, the consumption of alcoholic beverages is associated with an increased incidence of certain cancers. There is no evidence that human exposure to ethanol, unlike the repeated consumption of alcoholic beverages, highlighting an increase in the incidence of tumors. The available data indicate that they are not satisfied with the classification criteria.
Reproductive toxicity FERTILITY ':
NOAEL (oral, rat) = 13.8g / kg (OECD416 equiv.))
NOAEC (inhalation, rat)> 16,000ppm
Developmental toxicity (OECD414 equiv):
NOAEL (oral) = 5.2g / kgbw / day
NOAEC (inhalation) = 39mg / l.
Source IUCLID 7.8 Chapter Summary

In humans, excessive consumption of alcohol during pregnancy is associated with induction of fetal alcohol syndrome in the offspring, causing reduction in the birth weight and sometimes physical and mental defects. There is no evidence that these effects can be caused by exposure if not the direct ingestion of alcoholic beverages. The concentration of ethanol in the blood resulting from any exposure to ethanol different from deliberate and repeated oral consumption is unlikely to achieve associable levels for reproductive effects or development. From the available data it can be concluded that it is impossible to reach doses of ethanol that can produce adverse reproductive effects if not caused by oral consumption of large quantities, doses normally only associated with an alcohol problem, it follows that a classification of reproductive toxicity or developmental which chemical is neither appropriate nor justified.
Partial source IUCLID section 7.8 Summary

specific target organ toxicity (STOT) - single exposure
No observed effect on the target organs for single exposure

specific target organ toxicity (STOT) - repeated exposure
In studies of chronic under-nutrition or drinking water in rats, NOAELs ranges from 1.73g / kg to 3.9g / kg.
The most sensitive effects on these doses appear to be in the male kidney. Effects appear only at doses far above the levels that require classification.
Source IUCLID 7.5 Chapter Summary

Danger Aspiration no dangers Aspiration
Toxicokinetics In humans, the ethanol is rapidly absorbed by the oral or respiratory route, it is distributed through all the tissues and organs and is rapidly metabolized and excreted. For inhalation exposures at the workplace, alcohol deidrogena through metabolic pathway in the liver without saturating. Ethanol does not accumulate in the body.
The cutaneous absorption of ethanol is very low.
Information on likely routes of exposure Inhalation is the most likely route of exposure during normal use. The dermal absorption is likely only with prolonged exposure and occluded places. The substance is normally absorbed peringestione.

Symptoms related to the physical, chemical and toxicological
Ingestion: Swallowing may have the following effects:
depression of the central nervous system, nausea / vomiting, symptoms similar to intoxication by alcohol
Inhalation: Inhalation of high concentrations of vapor may cause temporary respiratory irritation, headaches, nausea.
Chronic effects Chronic effects not expected.

12 ECOLOGICAL INFORMATION

12.1 ecotoxicity:

Mixture of following substances (variable composition):

- **Propane (CAS N°74-98-6; EINECS N° 200-827-9; REACH N° 01-2119486944-21-xxxx)**
- **Isobutane (CAS N°75-28-5; EINECS N° 200-857-2; REACH N° 01-2119485395-27-xxxx)**
- **Butane (CAS N°106-97-8; EINECS N° 203-448-7; REACH N° 01-2119474691-32-xxxx)**

Toxicity
current data related to the aquatic toxicity showed no evidence of toxicity phenomena from an ecological point of view and the PNEC (S) were not derived for freshwater, marine water, sediment and soil.

Toxicity for fish
Butane:
LC50 (96h): 24.11 mg/l (Key study butane Fish - Short term QSAR EPA 2008)

Toxicity to daphnia
Butane:
LC50 (48h): 14.22 mg/l (Key study butane Daphnia - Short-term USEPA OPP 2008)
Toxicity to Algae
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena (They're improbable because of the volatility)

Toxicity to bacteria
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena (They're improbable because of the volatility)

Propane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: with or without
Method: Mutagenicity (Salmonella typhimurium - wise reversion)

Isobutane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: S-9 rat liver mix
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) reported to isobutene

Butane
Ames test Salmonella typhimurium
No evidence of mutagenic effects
Metabolic activation: with or without
Method: Mutagenicity (Salmonella typhimurium - wise reversion)
chromosome aberration in vitro human lymphocytes
not clastogenic

Metabolic activation: with or without
Method: OECD Test Guideline 473

Toxicity to living organisms in the soil
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no toxicity phenomena (They're improbable because of the volatility)

Toxicity to terrestrial plants
Given the above mentioned chemical and physical properties of the mixture, literature data have shown no (They're improbable because of the volatility)

ETHYL ALCOHOL - ALCOHOL DENAT.(N°CAS 64-17-5; N°EINECS 200-578-6; N°REACH 01-2119457610-43-0157):

FISH
LC50 (96hr) Salmo gairdneri: 13g/l; Pimephales promelas: 13.5, 14.2 and 15.3g/l.
FRESHWATER INVERTEBRATES
EC50 (48hr) Daphnia Magna: 12.34g/l; NOEC (Reproduction, 21 days): >10mg/l. Ceriodaphnia dubia: EC50 (48hrs): 5.012g/l;
NOEC (Reproduction, 10 days): 9.6mg/l.
Palaemonetes pugio NOEC (Development , 10 days): 79mg/l.

INVERTEBRATES IN SALT WATER
EC50 (24hr) Artemia salina 23.9, >10g/l;
EC50 (48hr) Artemia salina nauplii: 857mg/l

SEAWEED:
Chlorella vulgaris, 72hr: EC50 275mg/l, EC10 11.5mg/l;
Selenastrum capricornutum, 72hr, EC50: 12.9g/l, EC10=0.44g/l;
Chlamydomonas eugametos, 48hr, EC50: 18g/l, NOEC=7.9g/l
Skeletonema costatum, NOEC (5 days): 3.24g/l.

12.2 Furniture:	Data not available
12.3 Persistence and degradability:	Data not available.
12.4 Potential to accumulate:	Data not available, the individual ingredients are not bioaccumulative.
12.5 Results of PBT and vPvB	No PBT or vPvB (evaluation based on individual ingredients)
12.6 Other adverse effects:	not provided

13 DISPOSAL CONSIDERATIONS

The product must not be disposed of with household waste. Do not empty into drains. Disposal of the product must be in compliance with national laws. CONTAINERS not completely empty must be brought to a authorized disposal equip to recover the metal container containing flammable gas.

14 TRANSPORT INFORMATION

Road / rail transport ADR / RID (cross-border)
- ADR / RID-GGVS / E: 2 5F Gases
- Kemler Number: -
- UN-Number: 1950
- Packaging group: -
- Label: 2.1
- Description of goods: 1950 AEROSOLS
- Limited quantity (LQ) 1L
- the Tunnel restriction code D

- **Maritime transport IMDG:**
- IMDG Class: 2.1
- UN-Number: 1950
- Label 2.1
- Packaging group: -

• EMS Number: F-D, S-U
• Marine pollutant: no
• Proper shipping name: AEROSOLS

• **Air transport ICAO-TI and IATA-DGR:**
• ICAO / IATA: 2.1
• UN / ID Number: 1950
• Label 2.1
• Packaging group: -
• Correct technical name: AEROSOLS, flammable

15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations, legislation specific for the substance or mixture:

REGULATION (EC) No. 1223/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 November 2009 on cosmetic products.

Statement Aerosol
Directives: 75 / 324CE - 94/1 EC - 2008 / 47CE - 2013/10 EU
Regulation EC 807/2003
Regulation EC 219/2009

Regulation 1907/2006 / EC (REACH).
Regulation 1272/2008 / EC (CLP) X ATP
Regulation UE 830/2015
D. lgs. April 9, 2008, n. 81 ACT ON HEALTH AND SAFETY AT WORK (Italy)

This is not an exhaustive list.

15.2 Chemical Safety Assessment Not applicable

16 FURTHER INFORMATION

Hazard symbols and full text of H-phrases of section 3 of the MSDS for the individual components:

GHS02: flame symbol
Flam. Liq. 2: Flammable liquid Category 2
H225 – Highly flammable liquid and vapour.
Flam. Gas 1: Flammable gas Category 1
H220 Extremely flammable gas

GHS04: gas cylinder symbol
Press. Gas: Gas under pressure
H280 Contains gas under pressure, may explode if heated.

MSDS Version 1.0 30/03/2018

ABBREVIATIONS and ACRONYMS:

ACGIH = American Conference of Governmental Industrial Hygienists
CSR = Chemical Safety Report
DNEL = Derived No Effect

DMEL = Derived Minimum Effect Level
EC50 = Effective Concentration median
IC50 = inhibitory concentration, 50%
Klimisch = Evaluation criterion for the reliability (reliability) of the method used
LC50 = Lethal concentration, 50%
LD50 = Lethal Dose Media
PNEC = Expected Non Effect Concentration
N.A. = Not applicable
n.d. = Not available
Substance PBT = Persistent, Bioaccumulative and Toxic
CNS = central nervous system
= STOT specific target organ toxicity
(STOT) RE Repeated Exposure =
(STOT) SE = Single exposure
Key study = study of greatest relevance
TLV®TWA = Threshold Limit Value - Time Weighted Average
TLV®STEL = Threshold Limit Value - for a short time exposure limit
UVCB = substance from the composition is not known and variable (substances of Unknown or Variable composition)
vPvB = very Persistent and very Bioaccumulative
P = Persistent

SDS

Safety Data Sheet

1 Identification

Reuzel Inc.
1120 Lincoln Ave
Suite 125
Denver, CO 80203
USA

Manufacturer: Reuzel Inc.
1120 Lincoln Ave
Suite 125
Denver, CO 80203
USA
303-449-5555

Product Name: Reuzel After Shave
Revision Date: 9/20/2016
Chemical Family: Personal Care
Product Use: Shaving Product
Emergency Phone Contact: Poison Control, 1-800-222-1222

2 Hazard(s) Identification

Warning Flammable Liquid

3 Composition/Information on Ingredients

CAS #	Ingredient	Range %
64-17-5	Ethyl Alcohol	40-60

First-Aid Measures

Inhalation	Remove to ventilated area. Consult physician if problem persists.
Skin Contact	Rinse with water. Consult physician if problem persists.
Eye Contact	Rinse with water for 15 minutes; consult physician if problem.
Ingestion	Consult physician.

5 Fire-Fighting Measures

Flash Point	23·c
Flash Point Method	Closed Cup
Burning Rate	Not determined.
LEL	Not determined.
UEL:	Not determined.
Flammability Class	Class IC
Other	Use all-purpose extinguisher.

6 Accidental Release Measures

Small amounts can be washed to a drain with water or absorbed with the appropriate material and disposed of in accordance with local, state and federal guidelines. Recycle plastic containers whenever possible.

7 Handling and Storage

Handling Precautions	For external use only. Avoid eye contact. Keep out of the reach of children.
Storage Requirements	Avoid extreme heat and freezing temperatures.

8 Exposure Controls/Personal Protection

Engineering Controls	None needed for normal use.
Protective Equipment	None needed for normal use.

9 Physical and Chemical Properties

Appearance	Orange
Physical State	Liquid
Odor	Woody
Vapor Pressure	Not determined
Vapor Density	Not determined
Boiling Point	Not determined
Freezing/Melting Point	Not determined
Solubility	Water soluble
Specific Gravity	Not determined
Viscosity	Water Thin
pH	6.50-7.50

10 Stability and Reactivity

Stability	Stable under normal conditions
Conditions to Avoid	None known.
Materials to Avoid (Incompatibility)	Strong oxidizing or reducing agents.
Hazardous Decomposition Products	Will not occur under normal conditions.
Hazardous Polymerization	Will not occur.

11 Toxicological Information

None.

12 Ecological Information

None.

13 Disposal Considerations

Small amounts can be washed to a drain with water or absorbed with the appropriate material and disposed of in accordance with local, state and federal guidelines. Recycle plastic containers whenever possible.

14 Transport Information

CONSUMER COMMODITY, ORM-D, IN CARTONS. ITEM IN CASE OF EMERGENCY CALL CHEMTREC 1.800.424.9300.

GROUND – US-DOT/CAN-TDG/EU-ADR/APEC-ADR:
Proper Shipping Name: Flammable Liquid N.O.S. (Alcohol)
Hazard Class: 3 ID Number: UN1170
Packing Group: III Labels: Limited quantity, orientation arrows
AIRCRAFT – ICAO-IATA:
Proper Shipping Name: Consumer Commodity
Hazard Class 9 ID Number ID8000

Packing Group III Labels: Class 9 misc., limited quantity, orientation arrows
Reference IATA packing instructions Y963
VESSEL – IMO-IMDG:
Proper Shipping Name: Flammable Liquid N.O.S. (Alcohol)
Hazard Class 3 ID Number UN1770
Packing Group; III Labels: Limited quantity, orientation arrows
Reference IMDG packing instructions P001

15 Regulatory Information

None.

16 Other Information

Reuzel Inc. makes no warranty, express or implied, as to the accuracy, completeness, or reliability of information contained herein, except that such information is, to the best of our knowledge and belief, accurate as of the date indicated. We assume no responsibility for the application of the information or the consequences of its use.

SDS

Safety Data Sheet

1 Identification

Reuzel Inc.
1120 Lincoln Street, Suite 125
Denver, CO 80203
303.482.2379

Manufacturer: Reuzel Inc.
1120 Lincoln Street, Suite 125
Denver, CO 80203
303.482.2379

Product Name: Reuzel Astringent Foam
Revision Date: 2-5-18
Chemical Family: Personal Care
Product Use: Hair Styling Aid
Emergency Phone Contact: 24 hour emergency number +1-484-951-2432, contract number 1239. Within the USA call 1-800-373-7542 Hazmat Services Inc.

2 Hazard(s) Identification

Warning Flammable Liquid

3 Composition/Information on Ingredients

CAS #	Ingredient	Range %
64-17-5	Ethyl Alcohol	10-20

4 First-Aid Measures

Inhalation	Remove to ventilated area. Consult physician if problem persists.
Skin Contact	Rinse with water. Consult physician if problem persists.
Eye Contact	Rinse with water for 15 minutes; consult physician if problem.
Ingestion	Consult physician.

5 Fire-Fighting Measures

Flash Point	38.5°C
Flash Point Method	Closed Cup
Burning Rate	Not determined.
LEL	Not determined.
UEL:	Not determined.
Flammability Class	Category 3
Other	Use all purpose extinguisher.

6 Accidental Release Measures

Small amounts can be washed to a drain with water or absorbed with the appropriate material and disposed of in accordance with local, state and federal guidelines. Recycle plastic containers whenever possible.

7 Handling and Storage

Handling Precautions	For external use only. Avoid eye contact. Keep out of the reach of children. Avoid open flame
Storage Requirements	Avoid extreme heat and freezing temperatures.

8 Exposure Controls/Personal Protection

Engineering Controls	None needed for normal use.
Protective Equipment	None needed for normal use.

9 Physical and Chemical Properties

Appearance	Clear
Physical State	Liquid
Odor	Minty
Vapor Pressure	Not determined
Vapor Density	Not determined
Boiling Point	Not determined
Freezing/Melting Point	Not determined
Solubility	Water soluble
Specific Gravity	.90 - 1.1
Viscosity	< 500 cps
pH	4.50-6.50

10 Stability and Reactivity

Stability	Stable under normal conditions
Conditions To Avoid	None known.
Materials To Avoid (Incompatibility)	Strong oxidizing or reducing agents.
Hazardous Decomposition Products	Will not occur under normal conditions.
Hazardous Polymerization	Will not occur.

11 Toxicological Information

None.

12 Ecological Infromation

None.

13 Disposal Considerations

Small amounts can be washed to a drain with water or absorbed with the appropriate material and disposed of in accordance with local, state and federal guidelines. Recycle plastic containers whenever possible.

14 Transport Information

CONSUMER COMMODITY, ORM-D, IN CARTONS. ITEM IN CASE OF EMERGENCY CALL CHEMTREC 1.800.424.9300.

15 Regulatory Information

None.

16 Other Information

Reuzel Inc. makes no warranty, express or implied, as to the accuracy, completeness, or reliability of information contained herein, except that such information is, to the best of our knowledge and belief, accurate as of the date indicated. We assume no responsibility for the application of the information or the consequences of its use.

SDS

Safety Data Sheet

1 Identification

Reuzel Inc.
7010 Broadway #350
Denver, CO 80221
303-233-3718

Manufacturer:
Reuzel Inc.
7010 Broadway #350
Denver, CO 80221
303-449-5555
web:www.reuzel.com

Product Name: Reuzel Hair Tonic
Revision Date: 09-20-2016
Chemical Family: Personal Care
Product Use: Hair Styling Aid
Emergency Phone Contact: Poison Control, 1-800-222-1222

2 Hazard(s) Identification

Warning Flammable Liquid

3 Composition/Information on Ingredients

CAS #	Ingredient	Range %
64-17-5	Ethyl Alcohol	20-40

Water (Aqua)	51.77%
SD Alcohol 40-B	35.00%
Glycerin	10.00%
Polysorbate-20	1.50%
Fragrance (Parfum)	1.00%
Benzyl Alcohol	0.34%
Disodium EDTA	0.10%
Linalool	0.091%
Dehydroacetic Acid	0.06%
Limonene	0.050%
Benzyl Salicylate	0.040%
Coumarin	0.020%
Methyl Ionone Gamma	0.012%
Lilial	0.012%
Blue 1 CI 42090	0.002%
Eugenol	0.002%
Allyanisole	0.002%
Hamamelis Virginiana (Witch Hazel) Leaf Extract	0.001%
Urtica Dioica (Nettle) Leaf Extract	0.001%
Equisetum Arvense (Horsetail Root) Extract	0.001%
Rosmarinus Officinalis (Rosemary) Extract	0.001%
Citral	0.001%

4 First-Aid Measures

Inhalation Remove to ventilated area. Consult physician if problem p e r s i s t s .
Skin Contact Rinse with water. Consult physician if problem persists.
Eye Contact Rinse with water for 15 minutes; consult physician if problem.
Ingestion Consult physician.

5 Fire-Fighting Measures

Flash Point	34°C
Flash Point Method	Closed Cup
Burning Rate	Not determined.
LEL	Not determined.
UEL:	Not determined.
Flammability Class	Class IA
Other	Use all-purpose extinguisher.

6 Accidental Release Measures

Small amounts can be washed to a drain with water or absorbed with the appropriate material and disposed of in accordance with local, state and federal guidelines. Recycle plastic containers whenever possible.

7 Handling and Storage

Handling Precautions	For external use only. Avoid eye contact. Keep out of the reach of children.
Storage Requirements	Avoid extreme heat and freezing temperatures.

8 Exposure Controls/Personal Protection

Engineering Controls	None needed for normal use.
Protective Equipment	None needed for normal use.

9 Physical and Chemical Properties

Appearance	Blue Liquid
Physical State	Liquid
Odor	Woody
Vapor Pressure	Not determined
Vapor Density	Not determined
Boiling Point	Not determined
Freezing/Melting Point	< 32F / liquid at room temperature
Solubility	Water soluble
Specific Gravity	.90 - 1.1
Viscosity	> 1000 cps
pH	4.50-5.50

10 Stability and Reactivity

Stability	Stable under normal conditions
Conditions to Avoid	None known.
Materials to Avoid (Incompatibility)	Strong oxidizing or reducing agents.
Hazardous Decomposition Products	Will not occur under normal conditions.
Hazardous Polymerization	Will not occur.

11 Toxicological Information

None.

12 Ecological Information

None.

13 Disposal Considerations

Small amounts can be washed to a drain with water or absorbed with the appropriate material and disposed of in accordance with local, state and federal guidelines. Recycle plastic containers whenever possible.

14 Transport Information

CONSUMER COMMODITY, ORM-D, IN CARTONS. ITEM IN CASE OF EMERGENCY CALL CHEMTREC 1.800.424.9300.

GROUND – US-DOT/CAN-TDG/EU-ADR/APEC-ADR:
Proper Shipping Name: Flammable Liquid N.O.S. (Alcohol)
Hazard Class: 3 ID Number: UN1993
Packing Group: III Labels: Limited quantity, orientation arrows
AIRCRAFT – ICAO-IATA:
Proper Shipping Name: Consumer Commodity
Hazard Class 9 ID Number ID8000
Packing Group III Labels: Class 9 misc., limited quantity, orientation arrows
Reference IATA packing instructions Y963
VESSEL – IMO-IMDG:
Proper Shipping Name: Flammable Liquid N.O.S. (Alcohol)
Hazard Class 3 ID Number UN1993
Packing Group; III Labels: Limited quantity, orientation arrows
Reference IMDG packing instructions P001

15 Regulatory Information

None.

16 Other Information

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SDS Safety Data Sheet

1. PRODUCT INFORMATION	
1.1	**Product Name:** Fragrance Mist - On Ice
1.2	**Product Identification:** 248-90A
1.3	**Recommended Use / Product Use:** Fragrance
1.4	**Manufacturer's Name/address/phone** 2-2-0 LABORATORIES Inc. 2375 Third St, Riverside, CA 92507 TEL: (951) 683-2912 FAX: (951) 683-0952
1.5	**Emergency Phone:** Chemtrec (24 hours) 1-800-424-9300 (Toll-Free in the USA) For international calls: 011-703-527-3887 (Collect calls are accepted) Contract # CCN5
1.6	**Created for: Reuzel**

2. HAZARDOUS CLASSIFICATION OF PRODUCT INFORMATION

Classification		Labelling				Hazard Statement codes
		Pictogram		Signal Word	Hazard Statement	
Hazard Class	Hazard Category	GHS	UN Model Regulations			
Flammable liquids	2			Danger	Highly flammable liquid and vapour	H225
Serious eye damage/eye irritation	2A		None required	Defer to danger	Causes serious eye irritation	H319
Hazardous to the aquatic environment, long-term (chronic)	Chronic 1			Defer to danger	Very toxic to aquatic life with long lasting effects.	H410
Hazardous to the aquatic environment, (short-term acute)	Acute 2	No pictogram	Not required	No signal word	Toxic to aquatic life	H401

Category 2: Criteria: Flash point < 23°C (73.4°F) and initial boiling point > 35°C (95°F). Packing Group: II

P101: If medical advice is needed, have product container or label at hand**.**
P102: Keep out of reach of children.
P103: Read label before use.
Prevention:
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting…/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P273: Avoid release to the environment.
Response:
P303 + + P361 + P353: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin (hair) with water/shower.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue Rinsing
P337+P313: If eye irritation persists: Get medical advice/attention.
P370 + P378 In case of fire, use a fire extinguisher having a rating of not less than 12-B units.
P391: Collect spillage
Storage:
P403 + P233+P235: Store in a well-ventilated place. Keep container tightly closed. Keep cool
Disposal:
P501: Dispose of contents/container in accordance with local/regional/national/international regulation.

2.2	Other hazards which do not result in classification or are not covered by the GHS.

3. COMPOSITION INFORMATION ON INGREDIENTS

NOTE: *For information on ingredients, the competent authority rules for CBI take priority over the rules for product identification.*

CHEMICAL IDENTITY	CAS #	EINECS#	% (In Total Formula)	FLASHPOINT	REACH registration
Alcohol Denat.	64-17-5	200-578-6	65 - 80	55°F	01-2119457610-43-0648

3.1	Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance.
	CBI
3.2	▪ Mixture: The chemical identity and concentration or concentration ranges of all ingredients which are hazardous within the meaning of the GHS and are present above their cut-off levels. ▪ Cut-off level for reproductive toxicity, carcinogenicity and category 1 mutagenicity is ^{3} 0.1% ▪ A REACh SVHC if present above the cut-off level would be mentioned here. Cut-off level for all other hazard classes is ^{3} 1% ***NOTE***: *For information on ingredients, the competent authority rules for CBI take priority over the rules for product identification.*
	NONE PRESENT

4. FIRST AID MEASURES

4.1	**PRIMARY ROUTES OF EXPOSURE**		
4.2	**ACUTE**	**Target Organs or Systems**	**Symptoms and Signs of Exposure**
	INGESTION	Harmful if ingested.	
	EYES	Causes serious eye irritation. Symptoms may include redness, pain, swelling, itching, burning, tearing, and blurred vision.	

	DERMAL (SKIN)	Not expected to cause harm when used as directed. Repeated or prolonged skin contact may cause dermatitis.	
	INHALATION	Inhalation of vapors may cause respiratory irritation, dizziness, drowsiness.	
4.3	**CHRONIC**	**Target Organs or Systems**	**Symptoms and Signs of Exposure**
	INGESTION	Harmful if ingested.	
	EYES	Causes serious eye irritation. Symptoms may include redness, pain, swelling, itching, burning, tearing, and blurred vision.	
	DERMAL (SKIN)	Not expected to cause harm when used as directed. Repeated or prolonged skin contact may cause dermatitis and dry skin.	
	INHALATION	Inhalation of vapors may cause respiratory irritation, dizziness, drowsiness.	
4.4	**FIRST AID TREATMENT:**		
	INGESTION	Drink enough water to dilute. Consult physician immediately	
	EYES	Flush eyes with water for 15 minutes. If irritation persists, seek medical attention	
	DERMAL (SKIN)	If irritation occurs, wash thoroughly with mild soap and water. If irritation persists, seek medical attention	
	INHALATION	Remove victim to fresh air at once. If breathing is difficult, seek medical attention	
4.5	**Medical Conditions Aggravated by Exposure:** Pre-existing respiratory and skin disorder		

5. FIREFIGHTING MEASURES (RESPONSE)		
5.1	**Extinguishing Methods: (suitable and unsuitable)**	P370: In case of fire, use a fire extinguisher having a rating of not less than 12-B units. 1910.106(d)(7)(i)(a)
5.2	**Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products).**	Closed containers exposed to excessive heat are not expected to rupture. Do not crush or puncture containers. P243: Take precautionary measures against static discharge.
5.3	**Special protective equipment and precautions for firefighters.**	Fire should be fought from a safe distance. Firefighters should wear full face, self-contained breathing apparatus.
6. ACCIDENTAL RELEASE MEASURES		
6.1	**Personal precautions, protective equipment and emergency procedures:**	Depending on extent of release, consider the need for fire fighters/emergency responders with adequate personal protective equipment for cleaning up. Do not eat, drink, or smoke while cleaning up.
6.2	**Ventilation**	Use with adequate ventilation
6.3	**Respiratory**	None required, when used with adequate ventilation
6.4	**Environmental Precautions:**	Do not dispose of product into storm drains or waterways.
6.5	**Methods and materials for containment and cleaning up**.	Exclude sources of ignition and ventilate the area. Avoid breathing vapors. Refer to protective measures in section 7 and 8.
7. HANDLING & STORAGE INFORMATION		
7.1	**Precautions for Safe Handling:**	Wash hands thoroughly after using this product and before eating, drinking, or smoking. P242: Use only non-sparking tools.
7.2	**Conditions for safe storage, including any incompatibilities.**	P403 + P235: Store in a well-ventilated place. Keep cool. P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking. P233: Keep container tightly closed.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	**Control parameters, e.g., occupational exposure limit values or biological limit values.**
8.2	**Appropriate engineering controls.**
8.3	**Personal Protective Equipment:** None required under normal conditions of use. When handling large quantities (e.g., ≥ 1 gallon), wear protective eyeglasses, gloves, boot, and apron per OSHA regulations (29 CFR 1910.133)

CHEMICAL IDENTITY	CAS #	EINECS#	EXPOSURE LIMITS IN AIR		OTHER
			TLV ppm	PEL ppm	
Alcohol Denat.	64-17-5	200-578-6	1000	1000	Unknown

9. PHYSICAL & CHEMICAL PROPERTIES - TENTATIVE

ND = NO DATA / N/A = NOT APPLICABLE

		Concentrate	Finished Good
9.1	Appearance: (physical state, color, etc.)	Transparent Liquid	Fine spray
9.1a	Color	Colorless	Colorless
9.1b	Specific Gravity:	< 1.0	< 1.0
9.1c	Viscosity:	N/A	N/A
9.2	Odor	To Match Standard	To Match Standard
9.3	Odor Threshold	To Match Standard	To Match Standard
9.4	pH:	N/A	N/A
9.5	Melting point/freezing point	No data available	No data available
9.6	Initial Boiling Point and Boiling Range:	No data available	No data available
9.7	Flashpoint:	15.3°C	15.3°C
9.8	Evaporation Rate	No data available	No data available
9.9	Flammability: solid/gas	Liquid	Liquid
9.10	Upper/lower flammability or explosive limits	N/A	N/A
9.11	Vapor pressure	N/A	N/A
9.12	Vapor density	N/A	N/A
9.13	Relative density	See specific gravity	See specific gravity
9.14	Solubiity(ies)	WATER	WATER
9.15	Partition coefficient: n-octanol/water	No Data Available	No Data Available
9.16	Autoignition temperature	N/A	N/A
9.17	Decomposition temperature	N/A	N/A
9.18	Volatile Organic Compounds (VOC)	≤75.0%	VOC = ≤75.0%

10. STABILITY & REACTIVITY

10.1	**Chemical Stability:**	Stable under normal conditions of use
10.2	**Possibility of hazardous reactions:**	Hazardous polymerization will not occur.
10.3	**Conditions to Avoid:**	Use or storage near open flames, sparks, high heat (>100°F) or other heat sources
10.5	**Incompatible Substances:**	Strong oxidizing agents
10.2	**Hazardous Decomposition Products:**	Irritating vapors and toxic gases are not expected to occur when involved in fire

11. TOXICOLOGICAL INFORMATION (1272/2008 Part2: Health Hazards)

	Symbol	Hazard class and hazard category (2)	Pictogram (1)	Classification for this product
GHS06 Section 3.1	Skull and Crossbones	Acute toxicity (oral, dermal, inhalation),hazardcategories 1, 2, 3		Not classified
GHS05 Section 3.2	**Corrosion**	Skin corrosion, hazard categories 1A, 1B, 1C Section 3.3Serious eye damage, hazard category 1		Not classified

GHS07 Section 3.1	**Exclamation mark**	Eye irritation, hazard category 2		H319
GHS08 Section 3.4	**Health Hazard**	Respiratory sensitisation, hazard category 1 Germ cell mutagenicity, hazard categories 1A, 1B, 2 Carcinogenicity, hazard categories 1A, 1B, 2 Reproductive toxicity, hazard categories 1A, 1B, 2 Specific Target Organ Toxicity — Single exposure, hazard categories 1, 2 Specific Target Organ Toxicity — Repeated exposure, hazard categories 1, 2 Aspiration hazard, hazard category 1		Not classified

12. ECOLOGICAL INFORMATION

12.1	Ecotoxicity (aquatic and terrestrial where available)
12.2	Data is not determined experimentally on the finished good. It is compiled with known scientific evidence of compounds in the mixture. Product is not tested on animals. There is no data on the finished good.
GHS09 Section 4.1	**Symbol: environment** Pictogram  (1) Hazards to the aquatic environment: Long-term Chronic 1 Short-Term Acute 2

Acute hazard category 1 aquatic Toxicity		NOT CLASSIFIED
Chronic hazard category 1		H410
Chronic hazard category 2		NOT CLASSIFIED

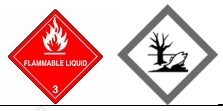
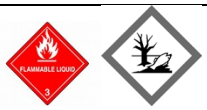
A pictogram is not required for the following environmental hazard classes and hazard categories:
Section 4.1: Hazardous to the aquatic environment — Chronic hazard categories 3, 4

Chronic Hazard Category 3		NOT CLASSIFIED
Chronic Hazard Category 4		NOT CLASSIFIED
Persistence and degradability		NO DATA
Bioaccumulative Potential		NO DATA
Mobility in soil		NO DATA
Other adverse effects		UNKNOWN

13. DISPOSAL CONSIDERATIONS

13.1	Dispose of in accordance with federal, state or local regulations.

14. TRANSPORTATION INFORMATION

14.1	49CFR (GND) UN1993, Flammable liquid, n.o.s. (Alcohol Denatured) 3, PG II	
	49CFR (GND) UN1993, Flammable liquid, n.o.s. (Alcohol Denatured) 3, PG II, "LTD QTY"	
	IATA (AIR) UN1993, Flammable liquid, n.o.s. (Alcohol Denatured) 3, PG II	

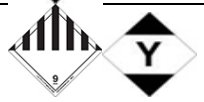
	IATA (AIR) UN1993, Flammable liquid, n.o.s. (Alcohol Denatured) 3, PG II, "LTD QTY"	
	IATA (AIR) ID 8000, CONSUMER COMMODITY, 9, Y963	
	IMDG (OCN) UN1993, Flammable liquid, n.o.s. (Alcohol Denatured) 3, PG II	
	IMDG (OCN) UN1993, Flammable liquid, n.o.s. (Alcohol Denatured) 3, PG II, "LTD QTY"	
14.2	MARINE POLLUTANT: YES	MARPOL 73/78 ANNEX III (HARMFUL SUBSTANCES IN PACKAGED FORM) 49 CFR APPENDIX B SECTION 172.101
15. REGULATORY INFORMATION		
15.1	Contents of this MSDS comply with the OSHA Hazard Communication Standard CFR 1910.1200: *The Globally Harmonized System of Classification and Labelling of Chemicals* (GHS)	
15.2	**EPA SARA Title III Chemical Listings** Section 302 Extremely Hazardous Substances: None Section 304 CERCLA Hazardous Substances: None Section 313 Toxic Chemicals: None present or none present in regulated quantities.	
15.3	California Proposition 65: No reportable components	
15.4	Contents of this SDS comply with the OSHA Hazard Communication Standard CFR 1910.1200	
	UN GHS: Globally Harmonized System of Classification and Labelling of Chemicals (GHS) ("The Purple Book"), United Nations, 2005 First Revised Edition, available online or from United Nations Publications. UN GHS website	
	USA: Federal Hazardous Materials Transportation Law (49 U.S.C. 5101 *et seq.*).	
	USA: OSHA Hazard Communication Standard 29 CFR 1910.1200.	
	DOT: U.S. DOT, 49 CFR Part 173, Subpart D.	
16. OTHER INFORMATION including information on preparation and revision of the SDS		
16.1	Version: 3 Revision: 1, 2 (1.7 – remove asterisk after CCN5) 3 (2.2, 11, 12) Revision date: 2019-07-23; 2019-10-30; 2020-03-30 Version 4: Revision: reformat sections 1,2,4 and 12. 2020-05-27 V 4 Rev 2 (2.2, 14.1) 2020-07-15 V4 Rev 3 2021-01-14 (remove ORM-D) V4 Rev 4 (3-reference to REACh) 2021-01-27 **Creation Date: 2021-03-11** **Author/Initials: Victoria Morales VCM**	
16.2	**Disclaimer:** This Safety Data Sheet is offered pursuant to **Globally Harmonized System[2](GHS);** OSHA's Hazard Communication Standard, 29 CFR § 1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of 2-2-0 Laboratories Inc.'s knowledge, the information contained herein is reliable and accurate as of the date issued; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided.	
	Definitions: ***Flammable liquid*** means a liquid having a flash point of not more than 93°C. Substances and mixtures of this hazard class are assigned to one of four hazard categories on the basis of the flash point and boiling point (See	

	Table 3.3). Flash Point is determined by closed cup methods as provided in the GHS document, Chapter 2.5, paragraph 11. ***Mixture*** means a mixture or a solution composed of two or more substances in which they do not react. ***CBI*** means "confidential business information". 12-B units; Fire extinguishers with a Class B rating are effective against flammable liquid fires. (Monoammonium phosphate, sodium bicarbonate).
15.3	**California Prop. 65** : NONE REQUIRED
GHS label	Fragrance Mist – On Ice 248-90A SDS 248-90A 2021-03-11 Alcohol Denat. CAS#64-17-5, Fragrance CBI  Signal Word: **DANGER** Hazard Statements: **Highly Flammable liquid and vapor. Causes serious eye irritation. Very toxic to aquatic life with long-lasting effects. Toxic to aquatic Life**. PRECAUTIONARY PHRASES: If medical advice is needed, have product container or label at hand**.** Keep out of reach of children. Read label before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting…/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid release to the environment. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin (hair) with water/shower. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue Rinsing. If eye irritation persists: Get medical advice/attention. In case of fire, use a fire extinguisher having a rating of not less than 12-B units. Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Keep cool Dispose of contents/container in accordance with local/regional/national/international regulation. 220 Laboratories, Inc. 2375 3rd Street Riverside CA. 92507 EMERGENCY CONTACT: Chemtrec (24 hours) 1-800-424-9300 (Toll-Free in the USA) For international calls: 011-703-527-3887 (Collect calls are accepted) Contract # CCN5