
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: ONLY 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.**
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Email: info@farmavita.it
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- 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
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Tel. 02.66101029
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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
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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 not 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 and 13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling:	<p>Avoid the accumulation of electrostatic charges.</p> <p>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.</p> <p>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.</p>
7.2 Conditions for safe storage, including any incompatibilities:	<p>Keep containers upright and in secure position in order to avoid falls or collisions.</p> <p>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 electrostatic charges.</p>
7.3 Specific end uses:	not provided

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:	<p>Data refer to the individual ingredients listed in section 3:</p> <p>Mixture of following substances (variable composition):</p> <ul style="list-style-type: none"> • 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)
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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 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
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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 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.

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: no

Method: Mutagenicity (*Salmonella typhimurium* - 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 fetuses 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 fetuses.
Information concerning the Liquefied Petroleum Gas [LPG Key study]
in vivo study
Rat - Inhalation Exposure 13 wk., 6h / g., 5g / wk.
OECD Guideline 413 EPA OPPTS 870.4365 (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 fetuses.

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 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