



MTN PRO GAS REFILL WHITOUT THINNER
Code: EX014PR0000



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SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

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| 1.1 | <p>PRODUCT IDENTIFIER: MTN PRO GAS REFILL WHITOUT THINNER CAS: 115-10-6 , EC: 204-065-8 REACH REGISTER: Register name: Dimethyl ether Register number: 01-2119472128-37 Code: EX014PR0000</p> |
| 1.2 | <p>RELEVANT IDENTIFIED USES AND USES ADVISED AGAINST: Intended uses (main technical functions): [X] Industrial [X] Professional [] Consumers Aerosol. Sectors of use (use as such or as an ingredient in mixtures): Industrial manufacturing (SU3), industrial. Formulation (mixing) of preparations and/or re-packaging (SU10), industrial, professional. Professional uses (SU22), professional. Use in manufacture, formulation or application processes (relevant uses): Professional use. Formulation of mixtures and/or re-packaging, industrial. Use of propellants, industrial. Use in products (relevant product categories): Adhesives, sealants (PC1). Coatings and paints, thinners, paint removers (PC9a). Lubricants, greases, release products (PC24). Polishes and wax blends (PC31). Uses advised against: This product is not recommended for any use or sector of use (industrial, professional or consume) other than those previously listed as 'Intended or identified uses'. Restrictions on manufacture, placing on market and use, according to Annex XVII of Regulation (EC) No. 1907/2006: For professional users only. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes.</p> |
| 1.3 | <p>DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET: MONTANA COLORS, S.L. Pol. Ind. Pla de les Vives - c/AnaisNin 6 - 08295 Sant Vicenç de Castellet (Barcelona) ESPAÑA Phone: +34 93 8332760 - Fax: +34 93 8332761 - www.montanacolors.com E-mail address of the person responsible for the Safety Data Sheet: e-mail: msds@montanacolors.com</p> |
| 1.4 | <p>EMERGENCY TELEPHONE NUMBER: +34 93 8332787 (9:00-17:00 h.) (working hours)</p> |

SECTION 2 : HAZARDS IDENTIFICATION

| 2.1 | <p>CLASSIFICATION OF THE SUBSTANCE OR MIXTURE: Classification in accordance with Regulation (EU) No. 1272/2008~2017/776 (CLP): DANGER: Flam. Aerosol 1:H222+H229</p> <table border="1"> <thead> <tr> <th>Danger class</th> <th>Classification of the substance</th> <th>Cat.</th> <th>Routes of exposure</th> <th>Target organs</th> <th>Effects</th> </tr> </thead> <tbody> <tr> <td> Physicochemical: Human health: Not classified Environment: Not classified </td> <td>Flam. Aerosol 1:H222+H229</td> <td>Cat.1</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>Full text of hazard statements mentioned is indicated in section 16.</p> | | | | | | Danger class | Classification of the substance | Cat. | Routes of exposure | Target organs | Effects | Physicochemical: Human health: Not classified Environment: Not classified | Flam. Aerosol 1:H222+H229 | Cat.1 | - | - | - |
|--|--|-------|--------------------|---------------|---------|--|--------------|---------------------------------|------|--------------------|---------------|---------|--|---------------------------|-------|---|---|---|
| Danger class | Classification of the substance | Cat. | Routes of exposure | Target organs | Effects | | | | | | | | | | | | | |
| Physicochemical: Human health: Not classified Environment: Not classified | Flam. Aerosol 1:H222+H229 | Cat.1 | - | - | - | | | | | | | | | | | | | |
| 2.2 | <p>LABEL ELEMENTS: This product is labelled with the signal word DANGER in accordance with Regulation (EU) No. 1272/2008~2017/776 (CLP)</p> <p>Hazard statements: H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated.</p> <p>Precautionary statements: 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. 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. P271-P260d Use only outdoors or in a well-ventilated area. Do not breathe spray. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P501a Dispose of contents/container in accordance with local regulations.</p> <p>Supplementary statements: None. Substances that contribute to classification: Dimethyl ether EC No. 204-065-8</p> | | | | | | | | | | | | | | | | | |



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2.3

OTHER HAZARDS:

Hazards which do not result in classification but which may contribute to the overall hazards of the substance:

Other physicochemical hazards: Vapours may form with air a mixture potentially flammable or explosive.

Other adverse human health effects: Prolonged exposure to vapours may produce transient drowsiness. Prolonged contact may cause skin dryness.

Other negative environmental effects: # Do not fulfil the PBT/vPvB criteria.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1

SUBSTANCES:

This product is a mono constituent substance.

Chemical description:

Dimethyl ether.

CH₃-O-CH₃

INGREDIENTS:

50 < 100 %



Dimethyl ether

CAS: 115-10-6 , EC: 204-065-8

CLP: Danger: Flam. Gas 1:H220 | Press. Gas:H280

REACH: 01-2119472128-37

Index No. 603-019-00-8
< REACHImpurities:

Does not contain other components or impurities which will influence the classification of the product.

Stabilizers:

None

Reference to other sections:

For more information on hazardous ingredients, see sections 8, 11, 12 and 16.

SUBSTANCES OF VERY HIGH CONCERN (SVHC):

List updated by ECHA on 27/06/2018.

Substances SVHC subject to authorisation, included in Annex XIV of Regulation (EC) no. 1907/2006:

None

Substances SVHC candidate to be included in Annex XIV of Regulation (EC) no. 1907/2006:

None

PERSISTENT, BIOACCUMULABLE AND TOXIC PBT, OR VERY PERSISTENT AND VERY BIOACCUMULABLE VPvB SUBSTANCES:

Do not fulfil the PBT/vPvB criteria.

3.2

MIXTURES:

Not applicable (substance).

SECTION 4 : FIRST AID MEASURES

4.1

DESCRIPTION OF FIRST-AID MEASURES:

Symptoms may occur after exposure, so that in case of direct exposure to the product, when in doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. Lifeguards should pay attention to self-protection and use the recommended protective equipment if there is a possibility of exposure. Wear protective gloves when administering first aid.

Route of exposureSymptoms and effects, acute and delayedDescription of first-aid measuresInhalation:

Vapours may cause headache, dizziness, nausea, loss of coordination, drowsiness and for choking, loss of mobility and unconsciousness.

Remove the patient out of the contaminated area into the fresh air. If there is difficulty in breathing, apply oxygen. If breathing is irregular or stops, administer artificial respiration. If the person is unconscious, place in appropriate recovery position. Keep the patient warm and at rest until medical attention arrives.

Skin:

Prolonged contact may cause skin dryness.

In the case of freezing, rinse with plenty of water, do not throw away clothing and seek medical attention.

Eyes:

Contact with the eyes produces redness and pain.

Remove contact lenses. Rinse eyes copiously by irrigation with plenty of clean, fresh water for at least 15 minutes, holding the eyelids apart, until the irritation is reduced. If irritation persists, consult a physician.

Ingestion:

If swallowed, may cause nausea and vomiting.

If swallowed, seek immediate medical attention. Keep the patient at rest.

4.2

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

The main symptoms and effects are indicated in sections 4.1 and 11

4.3

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Notes to physician: Treatment should be directed at the control of symptoms and the clinical condition of the patient.

Antidotes and contraindications: Not available.



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SECTION 5 : FIRE-FIGHTING MEASURES

- 5.1 **EXTINGUISHING MEDIA:**
Extinguishing powder or atmosphere of CO₂.
- 5.2 **SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:**
Flammable gas. Decomposes when heated intensely. The pressure may increase and the container may explode if heated in case of fire. Vapours may accumulate in low or confined areas, or travel a considerable distance to a source of ignition and flash back. As consequence of combustion or thermal decomposition, hazardous products may be produced: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products may be a hazard to health. Carbon monoxide is very toxic by inhalation. Carbon dioxide, in sufficient concentrations, may behave as a suffocating gas.
- 5.3 **ADVICE FOR FIREFIGHTERS:**
Special protective equipment: Depending on magnitude of fire, heat-proof protective clothing may be required, appropriate independent breathing apparatus, gloves, protective glasses or face masks and boots. If the fire-proof protective equipment is not available or is not being used, combat fire from a sheltered position or from a safe distance. The standard EN469 provides a basic level of protection for chemical incidents.
Other recommendations: Cool with water the tanks, cisterns or containers close to sources of heat or fire. Do not extinguish a leaking gas flame unless absolutely necessary since spontaneous explosive re-ignition may occur. Do not allow fire-fighting residue to enter drains, sewers or water courses.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

- 6.1 **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:**
Eliminate possible sources of ignition and when appropriate, ventilate the area. Do not smoke. Avoid direct contact with this product. Avoid breathing vapours. Keep people without protection in opposition to the wind direction.
- 6.2 **ENVIRONMENTAL PRECAUTIONS:**
Avoid contamination of drains, surface or subterranean water and soil. In the case of large scale spills or when the product contaminates lakes, rivers or sewages, inform the appropriate authorities in accordance with local regulations.
- 6.3 **METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:**
Contain and mop up spills with non-combustible absorbent materials (earth, sand, vermiculite, diatomaceous earth, etc..). Keep the remains in a closed container.
- 6.4 **REFERENCE TO OTHER SECTIONS:**
For contact information in case of emergency, see section 1.
For information on safe handling, see section 7.
For exposure controls and personal protection measures, see section 8.
For waste disposal, follow the recommendations in section 13.

SECTION 7 : HANDLING AND STORAGE

- 7.1 **PRECAUTIONS FOR SAFE HANDLING:**
Comply with the existing legislation on health and safety at work.
General recommendations:
Avoid any type of leakage or escape.
Recommendations for the prevention of fire and explosion risks:
Pressurised container. Protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Do not smoke.
- Flash point : -41 °C
- Autoignition temperature : 226 °C
- Upper/lower flammability or explosive limits : 3.3 - 26. % Volume 25°C
Recommendations for the prevention of toxicological risks:
Do not eat, drink or smoke while handling. After handling, wash hands with soap and water. Avoid applying the product directly to people, animals, plants or foodstuffs. For exposure controls and personal protection measures, see section 8.
Recommendations for the prevention of environmental contamination:
It is not considered a danger to the environment. In the case of accidental spillage, follow the instructions indicated in section 6.
- 7.2 **CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:**
Forbid the entry to unauthorized persons. Keep out of reach of children. Keep in a cool place. This product should be stored isolated from heat and electrical sources. Do not smoke in storage area. If possible, avoid direct contact with sunlight. Avoid extreme humidity conditions. Keep container in a well-ventilated place. For more information, see section 10.
Class of storage : According to current legislation.
Temperature interval : min: 5.°C, max: 50.°C (recommended).
Incompatible materials:
Keep away from reducing agents, oxidizing agents, acids, alkalis.
Type of packaging:
According to current legislation.
Limit quantity (Seveso III): Directive 2012/18/EU:
- Named dangerous substances/mixtures: None
- Hazard categories and lower-/upperthreshold quantities in tonnes (t):
- Physical hazards: Extremely flammable aerosol (P3a) (150t/500t neto).
- Health hazards: Not applicable
- Environmental hazards: Not applicable
- Other hazards: Not applicable.
- Threshold quantity for the application of lower-tier requirements: 150 (neto) tons
- Threshold quantity for the application of upper-tier requirements: 500 (neto) tons
- Remarks:
The qualifying quantities set out above relate to each establishment. The quantities to be considered for the application of the relevant Articles are the maximum quantities which are present or are likely to be present at any one time. Dangerous substances present at an establishment only in quantities equal to or less than 2 % of the relevant qualifying quantity shall be ignored for the purposes of calculating the total quantity present, if their location within an establishment is such that it cannot act as an initiator of a major accident elsewhere at that establishment. For more details, see note 4 of Annex I of the Seveso Directive.
- 7.3 **SPECIFIC END USES:**
For the use of this product do not exist particular recommendations apart from that already indicated.



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SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:
If a product contains ingredients with exposure limits, may be necessary a personnel monitoring, work place or biological, to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to EN689, EN14042 and EN482 standard concerning methods for assessing the exposure by inhalation to chemical agents, and exposure to chemical and biological agents. Reference should be also made to national guidance documents for methods for the determination of dangerous substances.

OCCUPATIONAL EXPOSURE LIMIT VALUES (TLV)

| AGCIH 2017 | Year | TLV-TWA ppm | mg/m3 | TLV-STEL ppm | mg/m3 | Remarks |
|----------------|------|----------------|-------|-----------------|-------|-------------|
| Dimethyl ether | | 1000. | 1920. | - | - | Recommended |

TLV - Threshold Limit Value, TWA - Time Weighted Average, STEL - Short Term Exposure Limit.

BIOLOGICAL LIMIT VALUES:

Not available

DERIVED NO-EFFECT LEVEL (DNEL):

Derived no-effect level (DNEL) is a level of exposure that is considered safe, derived from toxicity data according to specific guidances included in REACH. DNEL values may differ from a occupational exposure limit (OEL) for the same chemical. OEL values may come recommended by a particular company, a government regulatory agency or an organization of experts. Although considered protective of health, the OEL values are derived by a process different of REACH.

| <u>Derived no-effect level, workers:</u> - Systemic effects, acute and chronic: | <u>DNEL Inhalation</u> mg/m3 | <u>DNEL Cutaneous</u> mg/kg bw/d | <u>DNEL Oral</u> mg/kg bw/d |
|--|---------------------------------|-------------------------------------|--------------------------------|
| Dimethyl ether | - (a) 1894. (c) | - (a) - (c) | - (a) - (c) |
| <u>Derived no-effect level, workers:</u> - Local effects, acute and chronic: | <u>DNEL Inhalation</u> mg/m3 | <u>DNEL Cutaneous</u> mg/cm2 | <u>DNEL Eyes</u> mg/cm2 |
| Dimethyl ether | - (a) - (c) | - (a) - (c) | - (a) - (c) |

Derived no-effect level, general population:

Not applicable (product for professional or industrial use).

(a) - Acute, short-term exposure, (c) - Chronic, long-term or repeated exposure.

(-) - DNEL not available (without data of registration REACH).

PREDICTED NO-EFFECT CONCENTRATION (PNEC):

| <u>Predicted no-effect concentration, aquatic organisms:</u> - Fresh water, marine water and intermittent release: | <u>PNEC Fresh water</u> mg/l | <u>PNEC Marine</u> mg/l | <u>PNEC Intermittent</u> mg/l |
|---|---------------------------------|---|---|
| Dimethyl ether | 0.155 | 0.0160 | 1.55 |
| <u>- Wastewater treatment plants (STP) and sediments in fresh- and marine water:</u> | <u>PNEC STP</u> mg/l | <u>PNEC Sediments</u> mg/kg dry weight | <u>PNEC Sediments</u> mg/kg dry weight |
| Dimethyl ether | 160. | 0.681 | 0.0690 |
| <u>Predicted no-effect concentration, terrestrial organisms:</u> - Air, soil and effects for predators and humans: | <u>PNEC Air</u> mg/m3 | <u>PNEC Soil</u> mg/kg dry weight | <u>PNEC Oral</u> mg/kg bw/d |
| Dimethyl ether | - | 0.0450 | - |

(-) - PNEC not available (without data of registration REACH).



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8.2

EXPOSURE CONTROLS:**ENGINEERING MEASURES:**

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these measures are not sufficient to maintain concentrations of vapours below the Occupational Exposure Limits, suitable respiratory protection must be worn.

Protection of respiratory system: Avoid the inhalation of solvents.

Protection of eyes and face: It is recommended to install water taps, sources or eyewash bottles with clean water close to the working area.

Protection of hands and skin: It is recommended to install water taps or sources with clean water close to the working area. Barrier creams may help to protect the exposed areas of the skin. Barrier creams should not be applied once exposure has occurred.

OCCUPATIONAL EXPOSURE CONTROLS: Directive 89/686/EEC-96/58/EC:

As a general measure on prevention and safety in the work place, we recommend the use of a basic personal protection equipment (PPE), with the corresponding EC marking. For more information on personal protective equipment (storage, use, cleaning, maintenance, type and characteristics of the PPE, protection class, marking, category, CEN norm, etc.), you should consult the informative brochures provided by the manufacturers of PPE.

Mask:

Suitable combined filter mask for gases, vapours and particles (EN14387/EN143). Class 1: low capacity up to 1000 ppm, Class 2: medium capacity up to 5000 ppm, Class 3: high capacity up to 10000 ppm. In order to obtain a suitable protection level, the filter class must be selected depending on the type and concentration of the contaminating agents present, in accordance with the specifications supplied by the filter producers. The respiratory equipment with filters does not work satisfactorily when the air contains high concentrations of vapour or oxygen content less than 18% in volume.

Safety goggles:

Safety goggles with suitable lateral protection (EN166). Clean daily and disinfect at regular intervals in accordance with the instructions of the manufacturer.

Face shield:

No.

Gloves:

Fluorocarbon rubber gloves, thick >0.7 mm (EN374). Recommended minimal level 3, breakthrough time >60 min (protection for permanent contact). When short contact with the product is expected, use gloves with a protection level 2 or higher should be used, with a breakthrough time >30 min. The breakthrough time of the selected glove material should be in accordance with the pretended period of use. There are several factors (for example, temperature), they do in practice the period of use of a protective gloves resistant against chemicals is clearly lower than the established standard EN374. For the selection of a specific type of gloves for specific applications, with certain duration, it should take into account relevant factors to the workplace (without limitation to them), such as: other chemicals which may be handled, physical requirements (protection against cutting/puncture, dexterity, thermal protection), potential allergy to the material with which the gloves are made, etc.. Due to the wide variety of circumstances and possibilities, the instructions/specifications provided by the glove supplier should be taken into account. If used in solution or mixed with other substances, or under conditions different from the EN374, please contact the supplier of the approved gloves. The gloves should be immediately replaced when any sign of degradation is noted.

Boots:

No.

Apron:

No.

Clothing:

No.

Thermal hazards:

Not applicable (the product is handled at room temperature).

ENVIRONMENTAL EXPOSURE CONTROLS:

Avoid any spillage in the environment. Avoid any release into the atmosphere.

Spills on the soil: Prevent contamination of soil.

Spills in water: Do not allow to escape into drains, sewers or water courses.

- **Water Management Act:** This product does not contain any substance included in the list of priority substances in the field of water policy under Directive 2000/60/EC-2013/39/EU.

Emissions to the atmosphere: Because of volatility, emissions to the atmosphere while handling and use may result, in special when it is used as a solvent. When possible, avoid solvent release to the atmosphere; do not pulverize more than is strictly necessary.

- **VOC (industrial installations):** If this product is used in an industrial installation, it must be verified if it is applicable the Directive 2010/75/EC, on the limitation of emissions of volatile compounds due to the use of organic solvents in certain activities and installations: Solvents : 100.0% Weight , VOC (supply) : 100.0% Weight , VOC : 52.1% C (expressed as carbon) , Molecular weight (average) : 46.1 , Number C atoms (average) : 2.0.



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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

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| 9.1 | <p>INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:</p> <p><u>Appearance</u></p> <ul style="list-style-type: none"> - Physical state : Aerosol. - Colour : Colourless. - Odour : Characteristic - Odour threshold : Not available <p><u>pH-value</u></p> <ul style="list-style-type: none"> - pH : Not applicable (neutral organic substance). <p><u>Change of state</u></p> <ul style="list-style-type: none"> - Melting point : -138.5 °C - Initial boiling point : -23.7 °C at 760 mmHg <p><u>Density</u></p> <ul style="list-style-type: none"> - Vapour density : 1.59 at 20°C 1 atm. Relative air - Relative density : 0.661 at 20/4°C Relative water <p><u>Stability</u></p> <ul style="list-style-type: none"> - Decomposition temperature : Not available (lack of data). <p><u>Viscosity:</u></p> <ul style="list-style-type: none"> - Dynamic viscosity : Not applicable <p><u>Volatility:</u></p> <ul style="list-style-type: none"> - Evaporation rate : Not applicable - Vapour pressure : 510 kPa at 20°C - Vapour pressure : 1140 kPa at 50°C <p><u>Solubility(ies)</u></p> <ul style="list-style-type: none"> - Solubility in water: : Not miscible - Liposolubility : Not applicable - Partition coefficient: n-octanol/water : 0.07 (as log Pow) <p><u>Flammability:</u></p> <ul style="list-style-type: none"> - Flash point : -41 °C - Upper/lower flammability or explosive limits : 3.3 - 26. % Volume 25°C - Autoignition temperature : 226 °C <p><u>Explosive properties:</u></p> <p>In the molecule there is no chemical groups associated with explosive properties.</p> <p><u>Oxidizing properties:</u></p> <p>Not classified as oxidizing product.</p> |
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| 9.2 | <p>OTHER INFORMATION:</p> <ul style="list-style-type: none"> - Molecular weight (numeric) : 46.08 g/mol MWn - Heat of combustion : 7840 Kcal/kg - VOC (supply) : 100.0 % Weight - VOC (supply) : 661.0 g/l <p>The values indicated do not always coincide with product specifications. The data for the product specifications can be found in the corresponding technical data sheet. For additional information concerning physical and chemical properties related to safety and environment, see sections 7 and 12.</p> |
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SECTION 10 : STABILITY AND REACTIVITY

| | |
|------|---|
| 10.1 | <p>REACTIVITY:</p> <p><u>Corrosivity to metals:</u> It is not corrosive to metals.</p> <p><u>Pyrophorical properties:</u> It is not pyrophoric.</p> |
| 10.2 | <p>CHEMICAL STABILITY:</p> <p>Stable under recommended storage and handling conditions. Does not polymerize.</p> |
| 10.3 | <p>POSSIBILITY OF HAZARDOUS REACTIONS:</p> <p>Possible dangerous reaction with oxidizing agents, acids.</p> |
| 10.4 | <p>CONDITIONS TO AVOID:</p> <p><u>Heat:</u> Keep away from sources of heat.</p> <p><u>Light:</u> Avoid direct contact with sunlight.</p> <p><u>Air:</u> The product is not affected by exposure to air, but should not be left the containers open.</p> <p><u>Humidity:</u> Avoid extreme humidity conditions.</p> <p><u>Pressure:</u> Not relevant.</p> <p><u>Shock:</u> The product is not sensitive to shocks, but as a recommendation of a general nature should be avoided bumps and rough handling to avoid dents and breakage of packaging, especially when the product is handled in large quantities, and during loading and download operations.</p> |
| 10.5 | <p>INCOMPATIBLE MATERIALS:</p> <p>Keep away from reducing agents, oxidizing agents, acids, alkalis.</p> |
| 10.6 | <p>HAZARDOUS DECOMPOSITION PRODUCTS:</p> <p>As consequence of thermal decomposition, hazardous products may be produced: carbon monoxide.</p> |



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SECTION 11 : TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

ACUTE TOXICITY:

Dose and lethal concentrations :

Dimethyl ether

DL50 (OECD 401)
mg/kg oralDL50 (OECD 402)
mg/kg cutaneousCL50 (OECD 403)
mg/m³.4h inhalation
> 100000 Rat

No observed adverse effect level

Not available

Lowest observed adverse effect level

Not available

INFORMATION ON LIKELY ROUTES OF EXPOSURE : Acute toxicity:

| Routes of exposure | Acute toxicity | Cat. | Main effects, acute and/or delayed | Criteria |
|--------------------------------------|---------------------------------|------|--|---------------------------|
| <u>Inhalation:</u> Not classified | CL50 > 100000 mg/m ³ | - | Not classified as a product with acute toxicity if inhaled (based on available data, the classification criteria are not met). | CLP 3.1.2. OECD 403 |
| <u>Skin:</u> Not classified | Not available | - | Not classified as a product with acute toxicity in contact with skin (based on available data, the classification criteria are not met). | CLP 3.1.2. OECD 402 |
| <u>Eyes:</u> Not classified | Not available | - | Not classified as a product with acute toxicity by eye contact (lack of data). | CLP 1.2.5. |
| <u>Ingestion:</u> Not classified | Not available | - | Not classified as a product with acute toxicity if swallowed (based on available data, the classification criteria are not met). | CLP 3.1.2. OECD 401 |

CORROSION / IRRITATION / SENSITISATION :

| Danger class | Target organs | Cat. | Main effects, acute and/or delayed | Criteria |
|--|---------------|------|--|-----------------------------|
| <u>Respiratory corrosion/irritation:</u> Not classified | - | - | Not classified as a product corrosive or irritant by inhalation (based on available data, the classification criteria are not met). | CLP 1.2.6. 3.8.2.2.1. |
| <u>Skin corrosion/irritation:</u> Not classified | - | - | Not classified as a product corrosive or irritant in contact with skin (based on available data, the classification criteria are not met). | CLP 3.2.2. OECD 404 |
| <u>Serious eye damage/irritation:</u> Not classified | - | - | Not classified as a product corrosive or irritant in contact with eyes (based on available data, the classification criteria are not met). | CLP 3.3.2. OECD 405 |
| <u>Respiratory sensitisation:</u> Not classified | - | - | Not classified as a product sensitising by inhalation (based on available data, the classification criteria are not met). | CLP 3.4.2.1. |
| <u>Skin sensitisation:</u> Not classified | - | - | Not classified as a product sensitising by skin contact (based on available data, the classification criteria are not met). | CLP 3.4.2.2. OECD 406 |

ASPIRATION HAZARD:

| Danger class | Target organs | Cat. | Main effects, acute and/or delayed | Criteria |
|---|---------------|------|------------------------------------|----------------|
| <u>Aspiration hazard:</u> Not classified | - | - | # Not applicable. | CLP 3.10.2. |

SPECIFIC TARGET ORGANS TOXICITY (STOT): Single exposure (SE) and/or Repeated exposure (RE):

Not classified as a dangerous product for target organs (based on available data, the classification criteria are not met).

CMR EFFECTS:

Carcinogenic effects: It is not considered as a carcinogenic product.Genotoxicity: It is not considered as a mutagenic product.Toxicity for reproduction: Does not harm fertility. Does not harm the unborn child.Effects via lactation: Not classified as a hazardous product for children breast-fed.

DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE:

Routes of exposure: May be absorbed by inhalation of vapour, through the skin and by ingestion.Short-term exposure: Irritating to eyes, respiratory system and skin.Long-term or repeated exposure: Repeated or prolonged contact may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.



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SECTION 12 : ECOLOGICAL INFORMATION

| | | | | |
|------|--|--|--|--|
| 12.1 | TOXICITY: | | | |
| | <u>Acute toxicity in aquatic environment:</u> Dimethyl ether | <u>CL50 (OECD 203)</u> mg/l.96hours 4100. Fishes | <u>CE50 (OECD 202)</u> mg/l.48hours 4400. Daphnia | <u>CE50 (OECD 201)</u> mg/l.72hours |
| | <u>No observed effect concentration</u> Not available | | | |
| | <u>Lowest observed effect concentration</u> Not available | | | |
| 12.2 | PERSISTENCE AND DEGRADABILITY: | | | |
| | <u>Biodegradability:</u> Not readily biodegradable. | | | |
| | <u>Aerobic biodegradation</u> Dimethyl ether | <u>DQO</u> mgO2/g 1041. | <u>%DBO/DQO</u> 5 days 14 days 28 days ~ 1. ~ 3. ~ 5. | <u>Biodegradability</u> Not easy |
| | Note: Biodegradability data correspond to an average of data from various bibliographic sources. | | | |
| | <u>Hydrolysis:</u> Not applicable (the molecule does not contain hydrolysable functional groups). | | | |
| | <u>Photodegradability:</u> Because of indirect photochemical reactions, it is oxidized in the atmosphere mainly in contact with hydroxyl radicals, under the influence of sunlight. Degradation in the atmospheric environment is expected within a few days. | | | |
| 12.3 | BIOACCUMULATIVE POTENTIAL: | | | |
| | It is unlikely to bioaccumulate. | | | |
| | <u>Bioaccumulation</u> Dimethyl ether | <u>logPow</u> 0.0700 | <u>BCF</u> L/kg 1.7 (calculated) | <u>Potential</u> Not available |
| 12.4 | MOBILITY IN SOIL: | | | |
| | Not available. | | | |
| | <u>Mobility</u> Dimethyl ether | <u>logKoc</u> 0.890 | <u>Constante de Henry</u> Pa·m3/mol.20°C 101. (calculated) | <u>Potential</u> Not available |
| 12.5 | RESULTS OF PBT AND VPVBASESMENT: Annex XIII of Regulation (EC) no. 1907/2006: Do not fulfil the PBT/VPvB criteria : Half-life in the marine environment < 60 days, Half-life in fresh-water or estuarine < 40 days, Half-life in marine sediments < 180 days, Half-life in sediments of fresh-water or estuarine < 120 days, Half-life in the soil < 120 days, Bioconcentration factor BCF < 2000, Long term 'No observed effect concentration' for fresh-water or marine organisms NOEC > 0.01 mg/l, It is NOT classified as CMR, It has NO endocrine disrupting potential. | | | |
| 12.6 | OTHER ADVERSE EFFECTS: | | | |
| | <u>Ozone depletion potential:</u> Not dangerous for the ozone layer. Substance not listed in Annex I to Regulation (EC) 2037/2000–1005/2009 on substances that deplete the ozone layer. | | | |
| | <u>Photochemical ozone creation potential:</u> It contributes relatively little to the formation of ozone in the troposphere. | | | |
| | <u>Earth global warming potential:</u> In case of fire or incineration liberates CO2. | | | |
| | <u>Endocrine disrupting potential:</u> No. | | | |

SECTION 13 : DISPOSAL CONSIDERATIONS

| | | | | |
|------|--|--|--|--|
| 13.1 | WASTE TREATMENT METHODS: Directive 2008/98/EC–Regulation (EU) no. 1357/2014: Take all necessary measures to prevent the production of waste whenever possible. Analyse possible methods for revaluation or recycling. Do not discharge into drains or the environment, dispose at an authorised waste collection point. Waste should be handled and disposed in accordance with current local and national regulations. For exposure controls and personal protection measures, see section 8. | | | |
| | <u>Disposal of empty containers:</u> Directive 94/62/EC–2005/20/EC, Decision 2000/532/EC–2014/955/EU: Emptied containers and packaging should be disposed in accordance with currently local and national regulations. The classification of packaging as hazardous waste will depend on the degree of emptying of the same, being the holder of the residue responsible for their classification, in accordance with Chapter 15 01 of Decision 2000/532/EC, and forwarding to the appropriate final destination. With contaminated containers and packaging, adopt the same measures as for the product in itself. Ensure the container is completely empty before throwing it away. | | | |
| | <u>Procedures for neutralising or destroying the product:</u> In accordance with local regulations. Do not incinerate closed containers. | | | |



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SECTION 14 : TRANSPORT INFORMATION

14.1 UN NUMBER: 1950

14.2 UN PROPER SHIPPING NAME:
AEROSOLS

14.3 TRANSPORT HAZARD CLASS(ES) AND PACKING GROUP:

14.4

Transport by road (ADR 2017) and
Transport by rail (RID 2017):

| | |
|----------------------------|------------------------------------|
| - Class: | 2 |
| - Packaging group: | - |
| - Classification code: | 5F |
| - Tunnel restriction code: | (D) |
| - Transport category: | 2 , max. ADR 1.1.3.6. 333 L |
| - Limited quantities: | 1 L (see total exemptions ADR 3.4) |
| - Transport document: | Consignment paper. |
| - Instructions in writing: | ADR 5.4.3.4 |

Transport by sea (IMDG 38-16):

| | |
|---------------------------|--------------------------|
| - Class: | 2.1 (Division 2.1) |
| - Packaging group: | - |
| - Emergency Sheet (EmS): | F-D,S-U |
| - First Aid Guide (MFAG): | 620* |
| - Marine pollutant: | No. |
| - Transport document: | Shipping Bill of lading. |

Transport by air (ICAO/IATA 2017):

| | |
|-----------------------|---------------------|
| - Class: | 2.1 (Division 2.1) |
| - Packaging group: | - |
| - Transport document: | Air Bill of lading. |

Transport by inland waterways (ADN):

Not available.

14.5 ENVIRONMENTAL HAZARDS:
Not applicable (not classified as hazardous for the environment).

14.6 SPECIAL PRECAUTIONS FOR USER:
Ensure that persons transporting the product know what to do in case of accident or spill. Always transport in closed containers that are upright and secure. Ensure adequate ventilation.

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:
Not applicable.

SECTION 15 : REGULATORY INFORMATION

15.1 EU SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC:
The regulations applicable to this product generally are listed throughout this Safety Data Sheet.

Restrictions on manufacture, placing on market and use: See section 1.2

Tactile warning of danger: Not applicable (the classification criteria are not met).

Child safety protection: Not applicable (the classification criteria are not met).

Specific legislation on aerosols:

It is applicable the Directive 75/324/EEC~2013/10/EU, relating to aerosol dispensers and the Directive 87/404/EEC, concerning simple pressure packages.

OTHER REGULATIONS:

Control of the risks inherent in major accidents (Seveso III): See section 7.2

Other local legislations:

The receiver should verify the possible existence of local regulations applicable to the chemical.

15.2 CHEMICAL SAFETY ASSESSMENT:
A chemical safety assessment has been carried out for this product.



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SECTION 16 : OTHER INFORMATION

TEXT OF THE PHRASES AND NOTES REFERENCED IN SECTIONS 2 AND/OR 3:

Hazard statements according the Regulation (EU) No. 1272/2008-2017/776 (CLP), Annex III:

H220 Extremely flammable gas. H280 Contains gas under pressure: may explode if heated.

ADVICES ON ANY TRAINING APPROPRIATE FOR WORKERS:

It is recommended for all staff that will handle this product to carry out a basic training in occupational risk and prevention, in order to provide understanding and interpretation of Safety Data Sheets and labelling of products as well.

MAIN LITERATURE REFERENCES AND SOURCES FOR DATA:

- European Chemicals Agency: ECHA, <http://echa.europa.eu/>
- Access to European Union Law, <http://eur-lex.europa.eu/>
- Industrial Solvents Handbook, Ibert Mellan (Noyes Data Co., 1970).
- Threshold Limit Values, (AGCIH, 2016).
- European agreement on the international carriage of dangerous goods by road, (ADR 2017).
- International Maritime Dangerous Goods Code IMDG including Amendment 38-16 (IMO, 2016).

ABBREVIATIONS AND ACRONYMS:

List of abbreviations and acronyms that can be used (but not necessarily used) in this Safety Data Sheet:

- REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals of the United Nations.
- CLP: European regulation on Classification, Labelling and Packaging of substances and chemical mixtures.
- EINECS: European Inventory of Existing Commercial Chemical Substances.
- ELINCS: European List of Notified Chemical Substances.
- CAS: Chemical Abstracts Service (Division of the American Chemical Society).
- UVCB: Substances of Unknown or Variable composition, complex reaction products or biological materials.
- SVHC: Substances of Very High Concern.
- PBT: Persistent, bioaccumulable and toxic substances.
- vPvB: Very persistent and very bioaccumulable substances.
- VOC: Volatile Organic Compounds.
- DNEL: Derived No-Effect Level (REACH).
- PNEC: Predicted No-Effect Concentration (REACH).
- LD50: Lethal dose, 50 percent.
- LC50: Lethal concentration, 50 percent.
- UN: United Nations Organisation.
- ADR: European agreement concerning the international carriage of dangerous goods by road.
- RID: Regulations concerning the international transport of dangerous goods by rail.
- IMDG: International Maritime code for Dangerous Goods.
- IATA: International Air Transport Association.
- ICAO: International Civil Aviation Organization.

SAFETY DATA SHEET REGULATIONS:

Safety Data Sheet in accordance with Article 31 of Regulation (EC) No. 1907/2006 (REACH) and Annex of Regulation (EU) No. 2015/830.

HISTORIC:

Version: 1

Date of compilation:

16/10/2018

The information of this Safety Data Sheet, is based on the present state of knowledge and on current UE and national laws, as the users' working conditions are beyond our knowledge and control. The product is not to be used for other purposes than those specified, without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this Safety Data Sheet is meant as a description of the safety requirements of the product and it is not to be considered as a guarantee of the product's properties.