

# Safety Data Sheet

According to Annex II to REACH – Regulation 2020/878 and to Annex II to UK REACH

## SECTION 1. Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product name Hermetic Foam

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

Intended use Single-component polyurethane foam.

### 1.3. Details of the supplier of the safety data sheet

Name ROTHO BLAAS SRL  
Full address Via dell'Adige N. 2/1  
District and Country 39040 Cortaccia (BZ)  
Italy

tel. +39 0471 818400

fax +39 0471 818484

e-mail address of the competent person

responsible for the Safety Data Sheet reach@rothoblaas.com

### 1.4. Emergency telephone number

For urgent inquiries refer to UK NPIS +44 0344 892 0111  
Ireland NPIC (01) 809 2566 (01) 809 2166

## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

|                                                                |      |                                                                            |
|----------------------------------------------------------------|------|----------------------------------------------------------------------------|
| Aerosol, category 1                                            | H222 | Extremely flammable aerosol.                                               |
|                                                                | H229 | Pressurised container: may burst if heated.                                |
| Carcinogenicity, category 2                                    | H351 | Suspected of causing cancer.                                               |
| Acute toxicity, category 4                                     | H332 | Harmful if inhaled.                                                        |
| Specific target organ toxicity - repeated exposure, category 2 | H373 | May cause damage to organs through prolonged or repeated exposure.         |
| Eye irritation, category 2                                     | H319 | Causes serious eye irritation.                                             |
| Skin irritation, category 2                                    | H315 | Causes skin irritation.                                                    |
| Specific target organ toxicity - single exposure, category 3   | H335 | May cause respiratory irritation.                                          |
| Respiratory sensitization, category 1B                         | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Skin sensitization, category 1B                                | H317 | May cause an allergic skin reaction.                                       |

### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words:

Danger

Hazard statements:

|      |                                             |
|------|---------------------------------------------|
| H222 | Extremely flammable aerosol.                |
| H229 | Pressurised container: may burst if heated. |
| H351 | Suspected of causing cancer.                |

|               |                                                                            |
|---------------|----------------------------------------------------------------------------|
| <b>H332</b>   | Harmful if inhaled.                                                        |
| <b>H373</b>   | May cause damage to organs through prolonged or repeated exposure.         |
| <b>H319</b>   | Causes serious eye irritation.                                             |
| <b>H315</b>   | Causes skin irritation.                                                    |
| <b>H335</b>   | May cause respiratory irritation.                                          |
| <b>H334</b>   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| <b>H317</b>   | May cause an allergic skin reaction.                                       |
| <b>EUH204</b> | Contains isocyanates. May produce an allergic reaction.                    |

#### Precautionary statements:

|                  |                                                                                                |
|------------------|------------------------------------------------------------------------------------------------|
| <b>P210</b>      | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| <b>P251</b>      | Do not pierce or burn, even after use.                                                         |
| <b>P410+P412</b> | Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.                   |
| <b>P501</b>      | Dispose of contents / container according to the regulation in force.                          |
| <b>P102</b>      | Keep out of reach of children.                                                                 |
| <b>P211</b>      | Do not spray on an open flame or other ignition source.                                        |
| <b>P260</b>      | Do not breathe dust / fume / gas / mist / vapours / spray.                                     |

**Contains:** Diphenylmethanediisocyanate, isomers and homologues

Additional information according to EC Regulation no. 552/2009 of 22 June 2009:

The use of this product may cause allergic reactions in people already sensitized to diisocyanates. People with asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation, unless a protective mask with a suitable gas filter (e.g. type A1 according to EN 14387) is used.

From 24 August 2023, appropriate training is required before industrial or professional use.

#### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

#### 3.1. Substances

Information not relevant

#### 3.2. Mixtures

Contains:

| Identification                                             | x = Conc. %         | Classification (EC) 1272/2008 (CLP)                                                                                                                                                |
|------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Diphenylmethanediisocyanate, isomers and homologues</b> |                     |                                                                                                                                                                                    |
| CAS 9016-87-9                                              | $57 \leq x < 69$    | Carc. 2 H351, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1B H334, Skin Sens. 1B H317<br>STA Inhalation vapours: 11 mg/l |
| EC 618-498-9                                               |                     |                                                                                                                                                                                    |
| INDEX -                                                    |                     |                                                                                                                                                                                    |
| <b>Isobutane</b>                                           |                     |                                                                                                                                                                                    |
| CAS 75-28-5                                                | $9,8 \leq x < 14,9$ | Flam. Gas 1A H220, Press. Gas H280, Classification note according to Annex VI to the CLP Regulation: C, U                                                                          |
| EC 200-857-2                                               |                     |                                                                                                                                                                                    |
| INDEX 601-004-00-0                                         |                     |                                                                                                                                                                                    |
| REACH Reg. 01-2119485395-27-xxxx                           |                     |                                                                                                                                                                                    |
| <b>Dimethyl ether</b>                                      |                     |                                                                                                                                                                                    |
| CAS 115-10-6                                               | $5 \leq x < 9,9$    | Flam. Gas 1A H220, Press. Gas H280, Classification note according to Annex VI to the CLP Regulation: U                                                                             |
| EC 204-065-8                                               |                     |                                                                                                                                                                                    |
| INDEX 603-019-00-8                                         |                     |                                                                                                                                                                                    |
| REACH Reg. 01-2119472128-37-xxxx                           |                     |                                                                                                                                                                                    |
| <b>Propylene carbonate</b>                                 |                     |                                                                                                                                                                                    |
| CAS 108-32-7                                               | $5 \leq x < 9,9$    | Eye Irrit. 2 H319                                                                                                                                                                  |
| EC 203-572-1                                               |                     |                                                                                                                                                                                    |
| INDEX 607-194-00-1                                         |                     |                                                                                                                                                                                    |

**PROPANE**

CAS 74-98-6

 $3 \leq x < 5$ 

Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U

EC 200-827-9

INDEX 601-003-00-5

REACH Reg. 01-2119486944-21-xxxx

The full wording of hazard (H) phrases is given in section 16 of the sheet.

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 23,80 %

**SECTION 4. First aid measures****4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

**SECTION 5. Firefighting measures****5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

**5.2. Special hazards arising from the substance or mixture**

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

**5.3. Advice for firefighters**

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

**6.2. Environmental precautions**

Do not disperse in the environment.

**6.3. Methods and material for containment and cleaning up**

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7. Handling and storage

#### 7.1. Precautions for safe handling

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

Storage class TRGS 510 (Germany):  
2B

#### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

#### 8.1. Control parameters

Regulatory References:

|     |             |                                                                                                                                                                                                                                                                                                                                                          |
|-----|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DEU | Deutschland | Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56                                                                                                                            |
| ESP | España      | Límites de exposición profesional para agentes químicos en España 2021                                                                                                                                                                                                                                                                                   |
| FIN | Suomi       | HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÄRDSMINISTERIETS PUBLIKATIONER 2020:25                                                                                                                                                                                                                                       |
| GRC | Ελλάδα      | Π.Δ. 26/2020 (ΦΕΚ 50/Α' 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία``» |
| ITA | Italia      | Decreto Legislativo 9 Aprile 2008, n.81                                                                                                                                                                                                                                                                                                                  |
| NOR | Norge       | Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255                                                                                                                |
| POL | Polska      | Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy                                                                                                                                      |
| ROU | România     | Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006                                                                                                                                                                                            |
| SVN | Slovenija   | Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)                                                                                                                                                                  |
| EU  |             | OEL EU<br>TLV-ACGIH                                                                                                                                                                                                                                                                                                                                      |

Directive (EU) 2019/1831; Directive (EU) 2017/164; Directive 2000/39/EC; Directive 98/24/EC; Directive 2004/37/EC; ACGIH 2021

#### Diphenylmethanediisocyanate, isomers and homologues

| Threshold Limit Value                        |         |                   |       |                   |       |
|----------------------------------------------|---------|-------------------|-------|-------------------|-------|
| Type                                         | Country | TWA/8h            |       | STEL/15min        |       |
|                                              |         | mg/m <sup>3</sup> | ppm   | mg/m <sup>3</sup> | ppm   |
| OEL                                          | EU      |                   | 0,005 |                   |       |
| Predicted no-effect concentration - PNEC     |         |                   |       |                   |       |
| Normal value in fresh water                  |         |                   |       | 1                 | mg/l  |
| Normal value in marine water                 |         |                   |       | 0,1               | mg/l  |
| Normal value for water, intermittent release |         |                   |       | 10                | mg/l  |
| Normal value of STP microorganisms           |         |                   |       | 1                 | mg/l  |
| Normal value for the terrestrial compartment |         |                   |       | 1                 | mg/kg |

**Health - Derived no-effect level - DNEL / DMEL**

| Route of exposure | Effects on consumers |                |               |                  | Effects on workers |                |               |                  |
|-------------------|----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local | Chronic systemic | Acute local        | Acute systemic | Chronic local | Chronic systemic |
| Inhalation        | 0,05 mg/m3           |                | 0,025 mg/m3   |                  | 0,1 mg/m3          |                | 0,05 mg/m3    |                  |

**Dimethyl ether**

| Threshold Limit Value |         |        |      |            |     | Remarks / Observations |
|-----------------------|---------|--------|------|------------|-----|------------------------|
| Type                  | Country | TWA/8h |      | STEL/15min |     |                        |
|                       |         | mg/m3  | ppm  | mg/m3      | ppm |                        |
| VLEP                  | ITA     | 1920   | 1000 |            |     |                        |
| TLV-ACGIH             |         | 1920   | 1000 |            |     |                        |

**Predicted no-effect concentration - PNEC**

|                                              |  |       |         |
|----------------------------------------------|--|-------|---------|
| Normal value in fresh water                  |  | 0,155 | mg/l    |
| Normal value in marine water                 |  | 0,016 | mg/l    |
| Normal value for fresh water sediment        |  | 0,681 | mg/kg/d |
| Normal value for marine water sediment       |  | 0,069 | mg/kg/d |
| Normal value for water, intermittent release |  | 1,549 | mg/l    |
| Normal value of STP microorganisms           |  | 160   | mg/l    |
| Normal value for the terrestrial compartment |  | 0,045 | mg/kg/d |

**Health - Derived no-effect level - DNEL / DMEL**

| Route of exposure | Effects on consumers |                |               |                  | Effects on workers |                |               |                  |
|-------------------|----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local | Chronic systemic | Acute local        | Acute systemic | Chronic local | Chronic systemic |
| Inhalation        |                      |                | VND           | 471 mg/m3        |                    |                | VND           | 1894 mg/m3       |

**PROPANE**

| Threshold Limit Value |         |        |      |            |      | Remarks / Observations |
|-----------------------|---------|--------|------|------------|------|------------------------|
| Type                  | Country | TWA/8h |      | STEL/15min |      |                        |
|                       |         | mg/m3  | ppm  | mg/m3      | ppm  |                        |
| AGW                   | DEU     | 1800   | 1000 | 7200       | 4000 |                        |
| MAK                   | DEU     | 1800   | 1000 | 7200       | 4000 |                        |
| VLA                   | ESP     |        | 1000 |            |      |                        |
| HTP                   | FIN     | 1500   | 800  | 2000       | 1100 |                        |
| TLV                   | GRC     | 1800   | 1000 |            |      |                        |
| TLV                   | NOR     | 900    | 500  |            |      |                        |
| NDS/NDSch             | POL     | 1800   |      |            |      |                        |
| TLV                   | ROU     | 1400   | 778  | 1800       | 1000 |                        |
| MV                    | SVN     | 1800   | 1000 | 7200       | 4000 |                        |

**Legend:**

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.  
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

**8.2. Exposure controls**

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

**HAND PROTECTION**

None required.

**SKIN PROTECTION**

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

#### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| Properties                             | Value              | Information                                                                                                                            |
|----------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Appearance                             | aerosol            |                                                                                                                                        |
| Colour                                 | white              |                                                                                                                                        |
| Odour                                  | characteristic     |                                                                                                                                        |
| Odour threshold                        | Not applicable     |                                                                                                                                        |
| Melting point / freezing point         | Not available      | Method:ISO 3016<br>Substance:Diphenylmethanediisocyanate, isomers and homologues<br>Temperature: <0 °C                                 |
| Initial boiling point                  | Not applicable     |                                                                                                                                        |
| Flammability                           | flammable gas      |                                                                                                                                        |
| Lower explosive limit                  | 1,5 % (v/v)        |                                                                                                                                        |
| Upper explosive limit                  | 16 % (v/v)         |                                                                                                                                        |
| Flash point                            | Not applicable     | Method:DIN 53171<br>Substance:Diphenylmethanediisocyanate, isomers and homologues<br>Temperature: >200 °C                              |
| Auto-ignition temperature              | 226 °C             | Remark:1 013 hPa<br>Substance:Dimethyl ether                                                                                           |
| pH                                     | Not applicable     | Reason for missing data:not soluble in water                                                                                           |
| Kinematic viscosity                    | Not applicable     | Method:DIN 53019<br>Concentration: ≥200 mPa*s %<br>Substance:Diphenylmethanediisocyanate, isomers and homologues<br>Temperature: 20 °C |
| Solubility                             | insoluble in water |                                                                                                                                        |
| Partition coefficient: n-octanol/water | Not available      |                                                                                                                                        |
| Vapour pressure                        | <0,7 MPa (20 °C)   |                                                                                                                                        |
| Density and/or relative density        | 1                  |                                                                                                                                        |
| Relative vapour density                | Not available      |                                                                                                                                        |
| Particle characteristics               | Not applicable     |                                                                                                                                        |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

Information not available

#### 9.2.2. Other safety characteristics

|                      |               |                                                                                                                   |
|----------------------|---------------|-------------------------------------------------------------------------------------------------------------------|
| Evaporation rate     | Not available | Reason for missing data:the propellant is released, the extruded PU foam does not evaporate.                      |
| Explosive properties | Not available | Reason for missing data:The product is not explosive but the formation of explosive air/gas mixtures is possible. |

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

Diphenylmethanediisocyanate, isomers and homologues

Reacts with: water, acids, alcohols, amines, bases.

### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

Diphenylmethanediisocyanate, isomers and homologues

Risk of explosion on contact with: water, acids, alcohols, amines, bases.

### 10.4. Conditions to avoid

Avoid overheating.

Diphenylmethanediisocyanate, isomers and homologues

Avoid exposure to: high temperatures, moisture.

Dimethyl ether

Avoid exposure to: heat, naked flames, electrostatic discharges.

### 10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

Diphenylmethanediisocyanate, isomers and homologues

Keep away from: water, acids, alcohols, amines, bases.

Dimethyl ether

Avoid contact with: strong oxidising agents, natural rubbers, oxygen.

### 10.6. Hazardous decomposition products

Information not available

## SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

### ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:

1,9 mg/l

ATE (Oral) of the mixture:

Not classified (no significant component)

ATE (Dermal) of the mixture:

Not classified (no significant component)

#### Diphenylmethanediisocyanate, isomers and homologues

LD50 (Oral):

> 2000 mg/kg ratto, maschio/femmina

LD50 (Dermal):

> 9400 mg/kg coniglio, maschio/femmina

LC50 (Inhalation vapours):

> 0,31 mg/l, 4h ratto, maschio/femmina (polvere/nebbia)

STA (Inhalation vapours):

11 mg/l estimate from table 3.1.2 of Annex I of the CLP  
(figure used for calculation of the acute toxicity estimate of the mixture)

#### Dimethyl ether

LC50 (Inhalation mists/powders):

164000 ppm/4h Rat

LC50 (Inhalation vapours):

309 mg/l/4h Rat

#### SKIN CORROSION / IRRITATION

Causes skin irritation

#### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

#### RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Sensitising for the respiratory system

#### Respiratory sensitization

Information not available

#### Skin sensitization

Information not available

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Suspected of causing cancer

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

#### Adverse effects on sexual function and fertility

Information not available

#### Adverse effects on development of the offspring

Information not available

#### Effects on or via lactation

Information not available

#### STOT - SINGLE EXPOSURE

May cause respiratory irritation

#### Target organs

Information not available

#### Route of exposure

Information not available

#### STOT - REPEATED EXPOSURE

May cause damage to organs

#### Target organs

Information not available

#### Route of exposure

Information not available

#### ASPIRATION HAZARD

Excluded because the aerosol does not allow the accumulation of a significant amount of product in the mouth

#### 11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

## SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

#### 12.1. Toxicity

Dimethyl ether

LC50 - for Fish > 4,1 mg/l/96h *Poecilia reticulata*

EC50 - for Crustacea > 4,4 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants 154,9 mg/l/72h met. ECOSAR

Diphenylmethanediisocyanate, isomers and homologues

LC50 - for Fish > 1000 mg/l/96h *Danio rerio*

EC50 - for Crustacea > 1000 mg/l/24 h *Daphnia magna*

EC50 - for Algae / Aquatic Plants > 1640 mg/l/72h *Scenedesmus subspicatus*

Chronic NOEC for Crustacea > 10 mg/l *Daphnia magna* (21 d)

#### 12.2. Persistence and degradability

Dimethyl ether

Solubility in water 45,6 g/l 25 °C

NOT rapidly degradable

PROPANE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

Diphenylmethanediisocyanate, isomers and homologues

NOT rapidly degradable

#### 12.3. Bioaccumulative potential

Dimethyl ether

Partition coefficient: n-octanol/water 0,07 25 °C

PROPANE

Partition coefficient: n-octanol/water 1,09

Diphenylmethanediisocyanate, isomers and homologues

Partition coefficient: n-octanol/water 4,51

BCF 200 *Cyprinus carpio* (28 d). OECD Guideline 305 E

#### 12.4. Mobility in soil

Information not available

#### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

#### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

#### 12.7. Other adverse effects

Information not available

### SECTION 13. Disposal considerations

EWC: 160504.

#### 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

#### CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

### SECTION 14. Transport information

#### 14.1. UN number

ADR / RID, IMDG, 1950

IATA:

#### 14.2. UN proper shipping name

ADR / RID: AEROSOLS

IMDG: AEROSOLS

IATA: AEROSOLS, FLAMMABLE

#### 14.3. Transport hazard class(es)

ADR / RID: Class: 2 Label: 2.1

IMDG: Class: 2 Label: 2.1

IATA: Class: 2 Label: 2.1



#### 14.4. Packing group

ADR / RID, IMDG, -

IATA:

#### 14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

#### 14.6. Special precautions for user

ADR / RID: HIN - Kemler: --

Special Provision: -

IMDG: EMS: F-D, S-U

IATA: Cargo:

Limited  
Quantities: 1  
L

Limited  
Quantities: 1  
L  
Maximum  
quantity: 150  
Kg

Tunnel  
restriction  
code: (D)

Packaging  
instructions:  
203

Pass.:

Maximum  
quantity: 75  
Kg  
A145, A167,  
A802

Packaging  
instructions:  
203

Special Instructions:

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: P3a

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

#### Product

Point 40

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

#### Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 3: Severe hazard to waters

Additional information according to EC Regulation no. 552/2009 of 22 June 2009:

The use of this product may cause allergic reactions in people already sensitized to diisocyanates. People with asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation, unless a protective mask with a suitable gas filter (e.g. type A1 according to EN 14387) is used.

From 24 August 2023, appropriate training is required before industrial or professional use.

### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

|                   |                            |
|-------------------|----------------------------|
| Flam. Gas 1A      | Flammable gas, category 1A |
| Aerosol 1         | Aerosol, category 1        |
| Aerosol 3         | Aerosol, category 3        |
| Press. Gas        | Pressurised gas            |
| Press. Gas (Liq.) | Liquefied gas              |

|                       |                                                                            |
|-----------------------|----------------------------------------------------------------------------|
| <b>Carc. 2</b>        | Carcinogenicity, category 2                                                |
| <b>Acute Tox. 4</b>   | Acute toxicity, category 4                                                 |
| <b>STOT RE 2</b>      | Specific target organ toxicity - repeated exposure, category 2             |
| <b>Eye Irrit. 2</b>   | Eye irritation, category 2                                                 |
| <b>Skin Irrit. 2</b>  | Skin irritation, category 2                                                |
| <b>STOT SE 3</b>      | Specific target organ toxicity - single exposure, category 3               |
| <b>Resp. Sens. 1B</b> | Respiratory sensitization, category 1B                                     |
| <b>Skin Sens. 1B</b>  | Skin sensitization, category 1B                                            |
| <b>H220</b>           | Extremely flammable gas.                                                   |
| <b>H222</b>           | Extremely flammable aerosol.                                               |
| <b>H229</b>           | Pressurised container: may burst if heated.                                |
| <b>H280</b>           | Contains gas under pressure; may burst if heated.                          |
| <b>H351</b>           | Suspected of causing cancer.                                               |
| <b>H332</b>           | Harmful if inhaled.                                                        |
| <b>H373</b>           | May cause damage to organs through prolonged or repeated exposure.         |
| <b>H319</b>           | Causes serious eye irritation.                                             |
| <b>H315</b>           | Causes skin irritation.                                                    |
| <b>H335</b>           | May cause respiratory irritation.                                          |
| <b>H334</b>           | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| <b>H317</b>           | May cause an allergic skin reaction.                                       |
| <b>EUH204</b>         | Contains isocyanates. May produce an allergic reaction.                    |

#### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament

6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
  11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2019/521 (XII Atp. CLP)
  16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
  17. Regulation (EU) 2019/1148
  18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
  19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
  20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
  21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA website
  - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

**Changes to previous review:**

The following sections were modified:

01 / 02 / 03 / 07 / 08 / 09 / 11 / 12 / 15 / 16.