

# SAFETY DATA SHEET



2500 Hard-Hat Topcoat Transparent

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

### 1.1 Product identifier

**Product name** : 2500 Hard-Hat Topcoat Transparent  
**Product description** : Aerosol. Paint  
**Product type** : Aerosol.  
**UFI** : 1KH1-H0WY-300J-9DWK  
**Product code** : ROI0163

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

| Identified uses                        |        |
|--|--------|
| Consumer<br>Industrial<br>Professional |        |
| Uses advised against                   | Reason |
| None identified.                       | -      |

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

RUST-OLEUM EUROPE  
Martin Mathys NV, Kolenbergstraat 23, B-3545 Zelem, Belgium  
Telephone no.: +32 (0) 13 460 200  
Fax no.: +32 (0) 13 460 201

Tor Coatings Limited  
Unit 21, White Rose Way, Follingsby Park, Gateshead, Tyne & Wear, NE10 8YX United Kingdom  
Telephone no.: +44 (0) 191 4106611  
Fax no.: +44 (0) 191 4920125  
enquiries@tor-coatings.com

**e-mail address of person responsible for this SDS** : rpmeurohas@rustoleum.eu

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

Telephone number Belgium : Poison centre: +32(0)70 245 245  
Telephone number Bulgaria : +359 2 9154 409  
Telephone number Croatia : +385 1 2348 342  
Telephone number Cyprus : 1401  
Telephone number Czech Republic : Toxikologické informační středisko: Na Bojišti 1, 120 00 Praha 2, tel. +420 224 919 293 nebo +420 224 915 402 (nepřetržitá lékařská služba).  
Telephone number Denmark : Contact the "Giftlinien" on tel. No. 82 12 12 12 (open 24 hours a day). See point 4 on first aid.  
Telephone number Estonia : 16662  
Telephone number Finland : 0800 147 111  
Telephone number France : ORFILA (INRS): +33 (0)1 45 42 59 59 (24/7)

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

|  |   |
|--|---|
| Telephone number Greece                              | : Emergency Telephone Poison Center Nos. Children Aglaia Kyriakou<br>+30 210 7793777  |
| Telephone number Hungary                             | : Health Toxicology Information Service (ETTSZ)<br>(+ 36-80) 201-199 (in case of emergency 0-24 h, can be called free of<br>charge).  |
| Telephone number Iceland                             | : +354 5432222  |
| Telephone number Ireland                             | : 809 2166<br>Available 8am to 10pm 7 days per week   |
| Telephone number Italy                               | : 800183459   |
| Telephone number Latvia                              | : State Fire and Rescue Service: 112.<br>Ltd. "Riga Eastern Clinical University Hospital", Poisoning and Drug<br>Information Center, Hipokrāta 2, Riga, Latvia, LV-1038; open 24 hours a<br>day, tel. +371 67042473 |
| Telephone number Lithuania                           | : Poison Information Office 24 hours a day:<br>Phone: +370 (5) 2362052 (www.apsinuodijau.lt/)   |
| Telephone number Luxembourg                          | : Poison centre: +32(0)70 245 245   |
| Telephone number Malta                               | : 112   |
| Telephone number Netherlands                         | : 088-755 8000 (Only for the purpose of informing medical personnel in<br>case of acute intoxications)  |
| Telephone number Norway                              | : +47 22 59 13 00   |
| Telephone number Portugal                            | : 112<br>24/7, free call 800 250 250  |
| Telephone number Romania                             | : +40 21 318 36 06 ( Monday - Friday between 8:00 -15:00, local hour)   |
| Telephone number Slovakia                            | : NATIONAL TOXICOLOGICAL INFORMATION CENTER - Non-stop<br>24-hour consultation in case of acute intoxication<br>+421 2 5477 4166  |
| Telephone number Spain                               | : 915 620 420   |
| Telephone number Sweden                              | : Poison Information Center: 112  |
| Telephone number Switzerland                         | : Swiss Toxicological Information Centre (24 h) : 145   |
| Telephone number United Kingdom:<br>Northern Ireland | : 809 2166<br>Available 8am to 10pm 7 days per week   |

### Supplier

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Telephone number Austria        | : +43 13649237                    |
| Telephone number Belgium        | : +32 28083237                    |
| Telephone number Bulgaria       | : +359 32570104                   |
| Telephone number Croatia        | : +385 17776920                   |
| Telephone number Czech Republic | : +420 228880039                  |
| Telephone number Denmark        | : +45 69918573                    |
| Telephone number Estonia        | : +372 6681294                    |
| Telephone number Finland        | : +358 942419014                  |
| Telephone number France         | : +33 975181407                   |
| Telephone number Germany        | : +49 69643508409 / 0800-181-7059 |
| Telephone number Greece         | : +30 2111768478                  |
| Telephone number Hungary        | : +36 18088425                    |
| Telephone number Iceland        | : +354 539 0655                   |
| Telephone number Ireland        | : +353 19014670                   |
| Telephone number Italy          | : +39 0245557031 / 800-789-767    |
| Telephone number Latvia         | : +371 66165504                   |
| Telephone number Lithuania      | : +370 52140238                   |
| Telephone number Luxembourg     | : 352-20202416                    |

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

|                              |   |                |
|------------------------------|---|----------------|
| Telephone number Netherlands | : | +31 858880596  |
| Telephone number Poland      | : | +48 223988029  |
| Telephone number Portugal    | : | +351 308801773 |
| Telephone number Romania     | : | +40 37 6300026 |
| Telephone number Slovakia    | : | +421 233057972 |
| Telephone number Slovenia    | : | +38 618888016  |
| Telephone number Spain       | : | +34 931768545  |
| Telephone number Sweden      | : | +46 852503403  |
| Telephone number Switzerland | : | +41 435082011  |
| Hours of operation           | : | 24 / 7         |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aerosol 1, H222, H229  
Eye Irrit. 2, H319  
STOT SE 3, H336

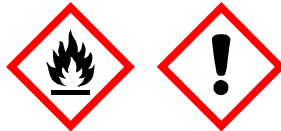
The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : H222, H229 - Extremely flammable aerosol. Pressurised container: may burst if heated.  
H319 - Causes serious eye irritation.  
H336 - May cause drowsiness or dizziness.

#### Precautionary statements

**General** : P103 - Read carefully and follow all instructions.  
P102 - Keep out of reach of children.  
P101 - If medical advice is needed, have product container or label at hand.

**Prevention** : P280 - Wear protective gloves. Wear eye or face protection.  
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.  
P271 - Use only outdoors or in a well-ventilated area.  
P251 - Do not pierce or burn, even after use.

**Response** : Not applicable.

**Storage** : P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** : n-butyl acetate  
Ethylacetate

**Supplemental label elements** : EUH066 - Repeated exposure may cause skin dryness or cracking.  
EUH208 - Contains fatty acids, C14-18 and C16-18-unsatd., maleated and maleic anhydride. May produce an allergic reaction.

2500 Hard-Hat Topcoat Transparent

## SECTION 2: Hazards identification

**Supplemental label elements : Detergents - Regulation (EC) No 907/2006** : Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

### Special packaging requirements

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006.** : Not applicable

**Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures Europe** : Mixture

| Product/ingredient name | Identifiers   | %         | Classification  | Specific Conc. Limits, M-factors and ATEs | Type    |
|-------------------------|---|-----------|---|---|---------|
| dimethyl ether          | REACH #:<br>01-2119472128-37<br>EC: 204-065-8<br>CAS: 115-10-6<br>Index: 603-019-00-8 | ≥50 - ≤75 | Flam. Gas 1A, H220<br>Press. Gas (Comp.),<br>H280                     | -   | [2]     |
| n-butyl acetate         | REACH #:<br>01-2119485493-29<br>EC: 204-658-1<br>CAS: 123-86-4<br>Index: 607-025-00-1 | ≥10 - ≤25 | Flam. Liq. 3, H226<br>STOT SE 3, H336<br>EUH066                       | -   | [1] [2] |
| Ethylacetate            | REACH #:<br>01-2119475103-46<br>EC: 205-500-4<br>CAS: 141-78-6<br>Index: 607-022-00-5 | ≥10 - ≤25 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336<br>EUH066 | -   | [1] [2] |
| 1-methoxy-2-propanol    | REACH #:<br>01-2119457435-35<br>EC: 203-539-1<br>CAS: 107-98-2                        | ≤10       | Flam. Liq. 3, H226<br>STOT SE 3, H336                                 | -   | [1] [2] |

### SECTION 3: Composition/information on ingredients

|  |  |        |  |   |         |
|--|--|--------|--|---|---------|
| 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate | Index: 603-064-00-3<br>REACH #:<br>01-2119451093-47<br>EC: 229-934-9<br>CAS: 6846-50-0 | <3     | Repr. 2, H361d<br>Aquatic Chronic 3, H412  | -   | [1]     |
| 2-methoxy-1-methylethyl acetate                    | EC: 203-603-9<br>CAS: 108-65-6<br>Index: 607-195-00-7                                  | ≤3     | Flam. Liq. 3, H226<br>STOT SE 3, H336  | -   | [1] [2] |
| fatty acids, C14-18 and C16-18-unsatd., maleated   | REACH #:<br>01-2119976378-19<br>EC: 288-306-2<br>CAS: 85711-46-2                       | ≤0,3   | Skin Irrit. 2, H315<br>Skin Sens. 1, H317  | -   | [1]     |
| maleic anhydride                                   | REACH #:<br>01-2119472428-31<br>EC: 203-571-6<br>CAS: 108-31-6<br>Index: 607-096-00-9  | <0,001 | Acute Tox. 4, H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Resp. Sens. 1, H334<br>Skin Sens. 1A, H317<br>STOT RE 1, H372 (inhalation)<br>EUH071<br><b>See Section 16 for the full text of the H statements declared above.</b> | ATE [Oral] = 400 mg/kg<br>Skin Sens. 1, H317:<br>C ≥ 0,001% | [1]     |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

#### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

##### Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

##### Skin contact

: Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## SECTION 4: First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
irritation  
dryness  
cracking
- Ingestion** : No specific data.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

## SECTION 5: Firefighting measures

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
- Additional information** : Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Container explosion may occur under fire conditions or when heated. Bursting aerosol containers may be propelled from a fire at high speed.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

### 6.4 Reference to other sections

- : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

#### Seveso Directive - Reporting thresholds

##### Danger criteria

| Category | Notification and MAPP threshold | Safety report threshold |
|----------|---------------------------------|-------------------------|
| P3a      | 150 tonnes                      | 500 tonnes              |

### 7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### Occupational exposure limits / Biological exposure indices

##### Europe

| Product/ingredient name | Exposure limit values   |
|-------------------------|---|
| dimethyl ether          | <b>EU OEL (Europe, 1/2022)</b><br>TWA 8 hours: 1000 ppm.  |
| n-butyl acetate         | <b>EU OEL (Europe, 1/2022)</b><br>TWA 8 hours: 1920 mg/m <sup>3</sup> .   |
| Ethylacetate            | <b>EU OEL (Europe, 1/2022)</b><br>STEL 15 minutes: 150 ppm.<br>STEL 15 minutes: 723 mg/m <sup>3</sup> .<br>TWA 8 hours: 241 mg/m <sup>3</sup> .<br>TWA 8 hours: 50 ppm. |
|                         | <b>EU OEL (Europe, 1/2022)</b><br>STEL 15 minutes: 400 ppm.<br>STEL 15 minutes: 1468 mg/m <sup>3</sup> .<br>TWA 8 hours: 200 ppm.                                       |

## SECTION 8: Exposure controls/personal protection

|                                 |   |
|---------------------------------|---|
| 1-methoxy-2-propanol            | TWA 8 hours: 734 mg/m <sup>3</sup> .<br><b>EU OEL (Europe, 1/2022)</b> Absorbed through skin.<br>TWA 8 hours: 100 ppm.<br>TWA 8 hours: 375 mg/m <sup>3</sup> .<br>STEL 15 minutes: 150 ppm.<br>STEL 15 minutes: 568 mg/m <sup>3</sup> . |
| 2-methoxy-1-methylethyl acetate | <b>EU OEL (Europe, 1/2022)</b> Absorbed through skin.<br>TWA 8 hours: 50 ppm.<br>TWA 8 hours: 275 mg/m <sup>3</sup> .<br>STEL 15 minutes: 100 ppm.<br>STEL 15 minutes: 550 mg/m <sup>3</sup> .  |

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### DNELs/DMELs

| Product/ingredient name  | Result   | Value                       | Effects                     |
|--|--|-----------------------------|-----------------------------|
| dimethyl ether   | <b>DNEL - General population - Long term - Inhalation</b>              | 471 mg/m <sup>3</sup>       | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Inhalation</b>                         | 1894 mg/m <sup>3</sup>      | <u>Effects:</u><br>Systemic |
| n-butyl acetate  | <b>DNEL - Workers - Long term - Dermal</b>                             | 7 mg/kg bw/day              | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Consumers - Long term - Oral</b>        | 3,4 mg/kg bw/day            | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Short term - Inhalation</b>                        | 960 mg/m <sup>3</sup>       | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Short term - Inhalation</b>                        | 960 mg/m <sup>3</sup>       | <u>Effects:</u> Local       |
|  | <b>DNEL - Workers - Long term - Inhalation</b>                         | 480 mg/m <sup>3</sup>       | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Inhalation</b>                         | 480 mg/m <sup>3</sup>       | <u>Effects:</u> Local       |
|  | <b>DNEL - General population - Consumers - Short term - Inhalation</b> | 859,7 mg/m <sup>3</sup>     | <u>Effects:</u><br>Systemic |
| <b>DNEL - General population - Consumers - Short term - Inhalation</b> | 859,7 mg/m <sup>3</sup>  | <u>Effects:</u> Local       |                             |
| <b>DNEL - General population - Consumers - Long term - Inhalation</b>  | 102,34 mg/m <sup>3</sup>   | <u>Effects:</u><br>Systemic |                             |

**SECTION 8: Exposure controls/personal protection**

|                              |  |                          |                   |
|------------------------------|--|--------------------------|-------------------|
| Ethylacetate                 | DNEL - General population - Consumers - Long term - Inhalation | 102,34 mg/m <sup>3</sup> | Effects: Local    |
|                              | DNEL - General population - Consumers - Long term - Dermal     | 3,4 mg/kg bw/day         | Effects: Systemic |
|                              | DNEL - General population - Long term - Oral                   | 2 mg/kg bw/day           | Effects: Systemic |
|                              | DNEL - General population - Short term - Oral                  | 2 mg/kg bw/day           | Effects: Systemic |
|                              | DNEL - General population - Long term - Dermal                 | 3,4 mg/kg bw/day         | Effects: Systemic |
|                              | DNEL - General population - Short term - Dermal                | 6 mg/kg bw/day           | Effects: Systemic |
|                              | DNEL - Workers - Long term - Dermal                            | 7 mg/kg bw/day           | Effects: Systemic |
|                              | DNEL - Workers - Short term - Dermal                           | 11 mg/kg bw/day          | Effects: Systemic |
|                              | DNEL - General population - Long term - Inhalation             | 12 mg/m <sup>3</sup>     | Effects: Systemic |
|                              | DNEL - General population - Long term - Inhalation             | 35,7 mg/m <sup>3</sup>   | Effects: Local    |
|                              | DNEL - Workers - Long term - Inhalation                        | 48 mg/m <sup>3</sup>     | Effects: Systemic |
|                              | DNEL - General population - Short term - Inhalation            | 300 mg/m <sup>3</sup>    | Effects: Local    |
|                              | DNEL - General population - Short term - Inhalation            | 300 mg/m <sup>3</sup>    | Effects: Systemic |
|                              | DNEL - Workers - Long term - Inhalation                        | 300 mg/m <sup>3</sup>    | Effects: Local    |
|                              | DNEL - Workers - Short term - Inhalation                       | 600 mg/m <sup>3</sup>    | Effects: Local    |
|                              | DNEL - Workers - Short term - Inhalation                       | 600 mg/m <sup>3</sup>    | Effects: Systemic |
|                              | DNEL - Workers - Short term - Inhalation                       | 1468 mg/m <sup>3</sup>   | Effects: Local    |
|                              | DNEL - Workers - Short term - Inhalation                       | 1468 mg/m <sup>3</sup>   | Effects: Systemic |
|                              | DNEL - Workers - Long term - Inhalation                        | 734 mg/m <sup>3</sup>    | Effects: Local    |
|                              | DNEL - Workers - Long term - Inhalation                        | 34 mg/m <sup>3</sup>     | Effects: Systemic |
| DNEL - Workers - Long term - | 63 mg/kg bw/   | Effects:                 |                   |

**SECTION 8: Exposure controls/personal protection**

|  |   |                        |                   |
|--|---|------------------------|-------------------|
| 1-methoxy-2-propanol                     | Dermal  | day                    | Systemic          |
|  | DNEL - General population - Consumers - Short term - Inhalation | 734 mg/m <sup>3</sup>  | Effects: Local    |
|  | DNEL - General population - Consumers - Short term - Inhalation | 734 mg/m <sup>3</sup>  | Effects: Systemic |
|  | DNEL - General population - Consumers - Long term - Inhalation  | 367 mg/m <sup>3</sup>  | Effects: Local    |
|  | DNEL - General population - Consumers - Long term - Inhalation  | 367 mg/m <sup>3</sup>  | Effects: Systemic |
|  | DNEL - General population - Consumers - Long term - Dermal      | 37 mg/kg bw/day        | Effects: Systemic |
|  | DNEL - General population - Consumers - Long term - Oral        | 4,5 mg/kg bw/day       | Effects: Systemic |
|  | DNEL - General population - Long term - Oral                    | 4,5 mg/kg bw/day       | Effects: Systemic |
|  | DNEL - General population - Long term - Dermal                  | 37 mg/kg bw/day        | Effects: Systemic |
|  | DNEL - Workers - Long term - Dermal                             | 63 mg/kg bw/day        | Effects: Systemic |
|  | DNEL - General population - Long term - Inhalation              | 367 mg/m <sup>3</sup>  | Effects: Local    |
|  | DNEL - General population - Long term - Inhalation              | 367 mg/m <sup>3</sup>  | Effects: Systemic |
|  | DNEL - General population - Short term - Inhalation             | 734 mg/m <sup>3</sup>  | Effects: Local    |
|  | DNEL - General population - Short term - Inhalation             | 734 mg/m <sup>3</sup>  | Effects: Systemic |
|  | DNEL - Workers - Long term - Inhalation                         | 734 mg/m <sup>3</sup>  | Effects: Local    |
|  | DNEL - Workers - Long term - Inhalation                         | 734 mg/m <sup>3</sup>  | Effects: Systemic |
|  | DNEL - Workers - Short term - Inhalation                        | 1468 mg/m <sup>3</sup> | Effects: Local    |
|  | DNEL - Workers - Short term - Inhalation                        | 1468 mg/m <sup>3</sup> | Effects: Systemic |
| DNEL - Workers - Short term - Inhalation | 553,5 mg/m <sup>3</sup>   | Effects: Local         |                   |
| DNEL - Workers - Long term - Inhalation  | 369 mg/m <sup>3</sup>   | Effects: Systemic      |                   |

**SECTION 8: Exposure controls/personal protection**

|  |   |                         |                             |
|--|---|-------------------------|-----------------------------|
| 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate | <b>DNEL - Workers - Long term - Dermal</b>                            | 50,6 mg/kg bw/day       | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Consumers - Long term - Inhalation</b> | 43,9 mg/m <sup>3</sup>  | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Consumers - Long term - Dermal</b>     | 18,1 mg/kg bw/day       | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Consumers - Long term - Oral</b>       | 3,3 mg/kg bw/day        | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Inhalation</b>                        | 369 mg/m <sup>3</sup>   | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Short term - Inhalation</b>                       | 553,5 mg/m <sup>3</sup> | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Inhalation</b>             | 4,35 mg/m <sup>3</sup>  | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Oral</b>                   | 5 mg/kg                 | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Inhalation</b>                        | 17,62 mg/m <sup>3</sup> | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Dermal</b>                            | 5 mg/kg                 | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Dermal</b>                 | 5 mg/kg                 | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Inhalation</b>             | 4,35 mg/m <sup>3</sup>  | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Oral</b>                   | 5 mg/kg bw/day          | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Dermal</b>                 | 5 mg/kg bw/day          | <u>Effects:</u><br>Systemic |
| 2-methoxy-1-methylethyl acetate                    | <b>DNEL - Workers - Long term - Dermal</b>                            | 5 mg/kg bw/day          | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Inhalation</b>                        | 17,62 mg/m <sup>3</sup> | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Inhalation</b>                        | 275 mg/m <sup>3</sup>   | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Dermal</b>                            | 153,5 mg/m <sup>3</sup> | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Consumers - Long term - Dermal</b>     | 54,8 mg/m <sup>3</sup>  | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Consumers - Long term - Oral</b>       | 1,67 mg/m <sup>3</sup>  | <u>Effects:</u><br>Systemic |

**SECTION 8: Exposure controls/personal protection**

|  |   |                         |                             |
|--|---|-------------------------|-----------------------------|
|  | <b>DNEL - Workers - Long term - Dermal</b>                | 796 mg/kg               | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Dermal</b>     | 320 mg/kg               | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Oral</b>       | 36 mg/kg                | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Inhalation</b> | 33 mg/m <sup>3</sup>    | <u>Effects:</u> Local       |
|  | <b>DNEL - General population - Long term - Inhalation</b> | 33 mg/m <sup>3</sup>    | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Short term - Inhalation</b>           | 550 mg/m <sup>3</sup>   | <u>Effects:</u> Local       |
| fatty acids, C14-18 and C16-18-unsatd., maleated | <b>DNEL - General population - Long term - Oral</b>       | 1,5 mg/kg bw/day        | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Dermal</b>     | 1,5 mg/kg bw/day        | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Dermal</b>                | 3 mg/kg bw/day          | <u>Effects:</u><br>Systemic |
| maleic anhydride                                 | <b>DNEL - Workers - Short term - Inhalation</b>           | 0,8 mg/m <sup>3</sup>   | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Short term - Dermal</b>               | 0,04 mg/kg              | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Inhalation</b>            | 0,4 mg/m <sup>3</sup>   | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Inhalation</b> | 0,05 mg/m <sup>3</sup>  | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Oral</b>       | 0,06 mg/kg bw/day       | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Inhalation</b> | 0,08 mg/m <sup>3</sup>  | <u>Effects:</u> Local       |
|  | <b>DNEL - Workers - Long term - Inhalation</b>            | 0,081 mg/m <sup>3</sup> | <u>Effects:</u> Local       |
|  | <b>DNEL - General population - Short term - Oral</b>      | 0,1 mg/kg bw/day        | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Short term - Dermal</b>    | 0,1 mg/kg bw/day        | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Long term - Dermal</b>     | 0,1 mg/kg bw/day        | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Long term - Dermal</b>                | 0,2 mg/kg bw/day        | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - Workers - Short term - Inhalation</b>           | 0,2 mg/m <sup>3</sup>   | <u>Effects:</u> Local       |

## SECTION 8: Exposure controls/personal protection

### PNECs

| Product/ingredient name         | Result   | Value         | Remarks    |
|---------------------------------|--|---------------|------------|
| n-butyl acetate                 | Fresh water  | 0,18 mg/l     | -          |
|                                 | Marine   | 0,018 mg/l    | -          |
|                                 | Fresh water sediment                               | 0,981 mg/kg   | -          |
|                                 | Marine water sediment                              | 0,0981 mg/kg  | -          |
|                                 | Soil   | 0,0903 mg/kg  | -          |
|                                 | Sewage Treatment Plant                             | 35,6 mg/l     | -          |
| Ethylacetate                    | Fresh water  | 0,24 mg/l     | -          |
|                                 | Marine   | 0,024 mg/l    | -          |
|                                 | Fresh water sediment                               | 1,15 mg/kg    | -          |
|                                 | Marine water sediment                              | 0,115 mg/kg   | -          |
|                                 | Soil   | 0,148 mg/kg   | -          |
|                                 | Sewage Treatment Plant                             | 650 mg/l      | -          |
| 1-methoxy-2-propanol            | Fresh water  | 10 mg/l       | -          |
|                                 | Fresh water sediment                               | 41,6 mg/l     | -          |
|                                 | Marine water sediment                              | 4,17 mg/l     | -          |
|                                 | Soil   | 2,47 mg/l     | -          |
|                                 | Sewage Treatment Plant                             | 100 mg/l      | -          |
|                                 | 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate | Fresh water   | 0,014 mg/l |
| Marine water                    |  | 0,0014 mg/l   | -          |
| Fresh water sediment            |  | 5,29 mg/kg    | -          |
| Marine water sediment           |  | 0,529 mg/kg   | -          |
| Soil                            |  | 1,05 mg/kg    | -          |
| Sewage Treatment Plant          |  | 3 mg/l        | -          |
| 2-methoxy-1-methylethyl acetate | Fresh water  | 0,635 mg/l    | -          |
|                                 | Fresh water sediment                               | 3,29 mg/kg    | -          |
|                                 | Marine water sediment                              | 0,329 mg/kg   | -          |
|                                 | Soil   | 0,29 mg/kg    | -          |
|                                 | Sewage Treatment Plant                             | 100 mg/l      | -          |
|                                 | Marine water                                       | 0,0635 mg/l   | -          |
| maleic anhydride                | Fresh water  | 0,04281 mg/l  | -          |
|                                 | Marine water                                       | 0,004281 mg/l | -          |

## SECTION 8: Exposure controls/personal protection

|  |                               |              |   |
|--|-------------------------------|--------------|---|
|  | <b>Soil</b>                   | 0,0415 mg/l  | - |
|  | <b>Fresh water sediment</b>   | 0,334 mg/kg  | - |
|  | <b>Marine water sediment</b>  | 0,0334 mg/kg | - |
|  | <b>Sewage Treatment Plant</b> | 44,6 mg/l    | - |

### 8.2 Exposure controls

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### Skin protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): polyethylene (PE), polyvinyl alcohol (PVA)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Recommended: Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

## SECTION 8: Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour filter (Type A) particulate filter (EN 140)
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

- Physical state** : Liquid. [Aerosol.]
- Colour** : Colourless.
- Odour** : Solvent-like [Slight]
- Odour threshold** : Not available.
- Melting point/freezing point** : Not applicable.
- Initial boiling point and boiling range** : Not available.

| Ingredient name | °C     | °F    | Method |
|-----------------|--------|-------|--------|
| dimethyl ether  | -24,82 | -12,7 |        |

- Flammability (solid, gas)** : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.  
Slightly flammable in the presence of the following materials or conditions: shocks and mechanical impacts.  
In use, may form flammable/explosive vapour-air mixture. Vapour may travel a considerable distance to source of ignition and flash back.
- Lower and upper explosion limit** : Lower: 2,35% [Calculated (Le Chatelier mixture rule)]  
Upper: 15,47% [Calculated (Le Chatelier mixture rule)]
- Flash point** : Closed cup: -40°C (-40°F) [Literature dimethyl ether]
- Auto-ignition temperature** : 350°C (662°F) [Literature dimethyl ether]
- Decomposition temperature** : Not applicable.
- pH** : Not applicable.
- pH : Justification** : Product is non-soluble (in water).
- Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C): Not available.

### Solubility(ies)

| Media      | Result      |
|------------|-------------|
| cold water | Not soluble |
| hot water  | Not soluble |

- Solubility in water** : Not available.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** : 513,3 kPa (3850 mm Hg) [Literature dimethyl ether]
- Evaporation rate** : Not available.

## SECTION 9: Physical and chemical properties

|                                 |  |
|---------------------------------|--|
| <b>Relative density</b>         | : Not available.   |
| <b>Density</b>                  | : 0,88 to 0,98 g/cm <sup>3</sup> [20°C (68°F)] [DIN 53217]   |
| <b>Vapour density</b>           | : >1 [Air = 1]   |
| <b>Explosive properties</b>     | : Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Container explosion may occur under fire conditions or when heated. Bursting aerosol containers may be propelled from a fire at high speed. |
| <b>Oxidising properties</b>     | : Not available.   |
| <b>Particle characteristics</b> |  |
| <b>Median particle size</b>     | : Not applicable.  |

### 9.2 Other information

|                           |              |
|---------------------------|--------------|
| <b>Heat of combustion</b> | : 24,72 kJ/g |
| <b>Aerosol product</b>    |              |
| <b>Type of aerosol</b>    | : Spray      |

## SECTION 10: Stability and reactivity

|  |  |
|--|--|
| <b>10.1 Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.           |
| <b>10.2 Chemical stability</b>                 | : The product is stable.   |
| <b>10.3 Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| <b>10.4 Conditions to avoid</b>                | : Avoid all possible sources of ignition (spark or flame).   |
| <b>10.5 Incompatible materials</b>             | : No specific data.  |
| <b>10.6 Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

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

#### Acute toxicity

| Product/ingredient name | Result                                | Value                              |
|-------------------------|---------------------------------------|------------------------------------|
| dimethyl ether          | <b>Rat - Inhalation - LC50 Gas.</b>   | 308000 mg/m <sup>3</sup> [1 hours] |
|                         | <b>Mouse - Inhalation - LC50 Gas.</b> | 386 ppm [0,5 hours]                |
|                         | <b>Rat - Inhalation - LC50 Vapour</b> | 309 g/m <sup>3</sup> [4 hours]     |
| n-butyl acetate         | <b>Rat - Inhalation - LC50 Gas.</b>   | 164000 ppm [4 hours]               |
|                         | <b>Rat - Oral - LD50</b>              | 14000 mg/kg                        |
|                         | <b>Rat - Inhalation - LC50 Vapour</b> | >21 mg/l [4 hours]                 |
| Ethylacetate            | <b>Rat - Inhalation - LC50 Vapour</b> | 9700 mg/m <sup>3</sup> [4 hours]   |
|                         | <b>Rabbit - Oral - LD50</b>           | 4935 mg/kg                         |

## SECTION 11: Toxicological information

|                                 |  |                                  |
|---------------------------------|--|----------------------------------|
| 1-methoxy-2-propanol            | <b>Rat - Oral - LD50</b>                       | 5620 mg/kg                       |
|                                 | <b>Mouse - Oral - LD50</b>                     | 4,1 g/kg                         |
|                                 | <b>Rat - Inhalation - LC50 Vapour</b>          | >22,5 mg/l [6 hours]             |
|                                 | <b>Mouse - Oral - LD50</b>                     | 11700 mg/kg                      |
|                                 | <b>Rabbit - Dermal - LD50</b>                  | 13 g/kg                          |
| 2-methoxy-1-methylethyl acetate | <b>Rat - Inhalation - LC50 Vapour</b>          | 30,02 mg/l [4 hours]             |
|                                 | <b>Rabbit - Dermal - LD50</b>                  | >5 g/kg                          |
|                                 | <b>Rat - Inhalation - NOEL Dusts and mists</b> | 8100 mg/m <sup>3</sup> [4 hours] |
| maleic anhydride                | <b>Rat - Oral - LD50</b>                       | 400 mg/kg                        |
|                                 | <b>Rabbit - Dermal - LD50</b>                  | 2620 mg/kg                       |

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

### Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| dimethyl ether          | N/A          | N/A            | 164000                   | 309                         | N/A                                 |
| maleic anhydride        | 400          | 2620           | N/A                      | N/A                         | N/A                                 |

### Skin corrosion/irritation

| Product/ingredient name                            | Result                                   | Exposure                                    | Observation |
|--|--|---|-------------|
| 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate | <b>Rabbit - Skin - Oedema</b>            | -   | -           |
|  | <b>Guinea pig - Skin - Mild irritant</b> | <u>Amount/concentration applied</u> : 5 gm  | -           |
|  | <b>Human - Skin - Mild irritant</b>      | <u>Amount/concentration applied</u> : 1 % l | -           |
| fatty acids, C14-18 and C16-18-unsatd., maleated   | <b>Human - Skin - Irritant</b>           | -   | -           |

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

### Ingredient name

n-butyl acetate  
1-methoxy-2-propanol  
2-methoxy-1-methylethyl acetate

### Conclusion/Summary

Non-irritating to the skin.  
Non-irritating to the skin.  
Non-irritating to the skin.

### Serious eye damage/eye irritation

2500 Hard-Hat Topcoat Transparent

## SECTION 11: Toxicological information

| Product/ingredient name                                   | Result                             | Exposure                                     | Observation |
|---|------------------------------------|--|-------------|
| 1-isopropyl-<br>2,2-dimethyltrimethylene<br>diisobutyrate | Rabbit - Eyes - Cornea<br>opacity  | -  | -           |
| maleic anhydride  | Rabbit - Eyes - Severe<br>irritant | <u>Amount/concentration<br/>applied: 1 %</u> | -           |

**Conclusion/Summary [Product]** : Causes serious eye irritation.

### Ingredient name

n-butyl acetate  
1-methoxy-2-propanol  
2-methoxy-1-methylethyl acetate  
fatty acids, C14-18 and C16-18-unsatd.,  
maleated

### Conclusion/Summary

Non-irritating to the eyes.  
Non-irritating to the eyes.  
Non-irritating to the eyes.  
Non-irritating to the eyes.

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary [Product]** : May cause drowsiness or dizziness.

### Respiratory or skin sensitization

| Product/ingredient name                             | Species - Route of exposure | Result                   |
|---|-----------------------------|--------------------------|
| fatty acids, C14-18 and C16-18-unsatd.,<br>maleated | Mouse - skin                | <u>Result:</u> Ambiguous |

### Skin

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

### Ingredient name

n-butyl acetate  
1-methoxy-2-propanol  
2-methoxy-1-methylethyl acetate

### Conclusion/Summary

Non-sensitiser to skin.  
Non-sensitiser to skin.  
Non-sensitiser to skin.

### Respiratory

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

### Germ cell mutagenicity

Not available.

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

### Carcinogenicity

Not available.

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

### Reproductive toxicity

2500 Hard-Hat Topcoat Transparent

## SECTION 11: Toxicological information

| Product/ingredient name                          | Species - Route of exposure | Dose - Exposure | Effects                             |
|--|-----------------------------|-----------------|-------------------------------------|
| fatty acids, C14-18 and C16-18-unsatd., maleated | Rat - Male, Female - Oral   | 1000 mg/kg      | <u>Fertility effects</u> : Positive |

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

### Specific target organ toxicity (single exposure)

| Product/ingredient name         | Result                             |
|---------------------------------|------------------------------------|
| n-butyl acetate                 | STOT SE 3, H336 (Narcotic effects) |
| Ethylacetate                    | STOT SE 3, H336 (Narcotic effects) |
| 1-methoxy-2-propanol            | STOT SE 3, H336 (Narcotic effects) |
| 2-methoxy-1-methylethyl acetate | STOT SE 3, H336 (Narcotic effects) |

### Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Result                       |
|-------------------------|------------------------------|
| maleic anhydride        | STOT RE 1, H372 (inhalation) |

### Aspiration hazard

Not available.

### Information on likely routes of exposure

Routes of entry anticipated: Dermal, Inhalation, Eyes.  
Routes of entry not anticipated: Oral.

### Potential acute health effects

|                     |   |
|---------------------|---|
| <b>Eye contact</b>  | : Causes serious eye irritation.  |
| <b>Inhalation</b>   | : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. |
| <b>Skin contact</b> | : Defatting to the skin. May cause skin dryness and irritation.                         |
| <b>Ingestion</b>    | : Can cause central nervous system (CNS) depression.                                    |

### Symptoms related to the physical, chemical and toxicological characteristics

|                     |   |
|---------------------|---|
| <b>Eye contact</b>  | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness  |
| <b>Inhalation</b>   | : Adverse symptoms may include the following:<br>respiratory tract irritation<br>coughing<br>nausea or vomiting<br>headache<br>drowsiness/fatigue<br>dizziness/vertigo<br>unconsciousness |
| <b>Skin contact</b> | : Adverse symptoms may include the following:<br>irritation<br>dryness<br>cracking  |
| <b>Ingestion</b>    | : No specific data.   |

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

#### Short term exposure

|                                    |                  |
|------------------------------------|------------------|
| <b>Potential immediate effects</b> | : Not available. |
| <b>Potential delayed effects</b>   | : Not available. |

#### Long term exposure

## SECTION 11: Toxicological information

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**Conclusion/Summary [Product]** : Not available.

**General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

Not available.

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name | Result  | Species                       |
|-------------------------|---|-------------------------------|
| n-butyl acetate         | <b>Acute - EC50 - Fresh water</b><br>44 mg/l [48 hours]     | Daphnia spec. - Daphnia spec. |
|                         | <b>Acute - EC50 - Fresh water</b><br>397 mg/l [72 hours]    | Algae                         |
|                         | <b>Acute - LC50 - Fresh water</b><br>18 mg/l [96 hours]     | Fish - Fathead minnow         |
|                         | <b>Chronic - NOEC - Fresh water</b><br>23 mg/l [21 days]    | Daphnia spec. - Daphnia spec. |
|                         | <b>Acute - LC50 - Marine water</b><br>32 mg/l [48 hours]    | Crustaceans - Brine shrimp    |
| Ethylacetate            | <b>Acute - EC50</b><br>5600 mg/l [72 hours]                 | Algae - Algae                 |
|                         | <b>Acute - EC50 - Fresh water</b><br>165 mg/l [48 hours]    | Daphnia spec. - Water flea    |
|                         | <b>Chronic - NOEC - Fresh water</b><br>2,4 mg/l [21 days]   | Daphnia spec. - Water flea    |
|                         | <b>Acute - LC50 - Fresh water</b><br>230 mg/l [48 hours]    | Fish - Fathead minnow         |
|                         | <b>Chronic - NOEC - Fresh water</b><br>6,9 mg/l [6,9 hours] | Fish - Fathead minnow         |
|                         | <b>Chronic - NOEC - Fresh water</b><br>2,4 mg/l [21 days]   | Daphnia spec. - Water flea    |

## SECTION 12: Ecological information

|                                 |   |   |
|---------------------------------|---|---|
| 1-methoxy-2-propanol            | <p><b>Acute - LC50 - Fresh water</b><br/>6812 mg/l [96 hours]</p> <p><b>Acute - EC50</b><br/>23300 mg/l [96 hours]</p> <p><b>Acute - EC50</b><br/>&gt;1000 mg/l [7 days]</p>  | <p>Fish - Golden orfe (leuciscus idus)</p> <p>Daphnia spec. - Daphnia spec.</p> <p>Algae</p>                            |
| 2-methoxy-1-methylethyl acetate | <p><b>Acute - NOEC</b><br/>&gt;1000 mg/l [96 hours]</p> <p><b>Acute - LC50 - Fresh water</b><br/>130 mg/l [96 hours]</p> <p><b>Chronic - LC10</b><br/>100 mg/l [21 days]</p> <p><b>Chronic - NOEC - Fresh water</b><br/>47,5 mg/l [14 days]</p> | <p>Algae - Algae</p> <p>Fish - Rainbow trout (oncorhynchus mykiss)</p> <p>Daphnia spec. - Daphnia spec.</p> <p>Fish</p> |
| maleic anhydride                | <p><b>Acute - LC50 - Fresh water</b><br/>230 ppm [96 hours]</p>   | <p>Fish - Western mosquitofish - Adult</p>  |

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

### 12.2 Persistence and degradability

| Product/ingredient name                            | Test                                | Result                        |
|--|-------------------------------------|-------------------------------|
| n-butyl acetate                                    | -                                   | 90% [28 days] - Readily       |
|  | -                                   | 83% [28 days] - Readily       |
|  | -                                   | 80% [5 days]                  |
| Ethylacetate                                       | -                                   | 70% [28 days] - Readily       |
| 1-methoxy-2-propanol                               | <b>1,95 gO<sub>2</sub>/g - ThOD</b> | >90% [5 days] - Readily       |
|  | -                                   | 96% [28 days] - Readily       |
|  | -                                   | 88 to 92% [28 days] - Readily |
| 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate | -                                   | 70,73% [28 days] - Readily    |
| 2-methoxy-1-methylethyl acetate                    | -                                   | 100% [8 days] - Inherent      |

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

**Ingredient name**

n-butyl acetate

**Conclusion/Summary**

This product is readily biodegradable.

## SECTION 12: Ecological information

| Product/ingredient name                            | Aquatic half-life                   | Photolysis | Biodegradability |
|--|-------------------------------------|------------|------------------|
| n-butyl acetate                                    | -                                   | -          | Readily          |
| Ethylacetate                                       | -                                   | -          | Readily          |
| 1-methoxy-2-propanol                               | <28 days [Fresh water] [5 to 25 °C] | -          | Readily          |
| 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate | -                                   | -          | Readily          |
| 2-methoxy-1-methylethyl acetate                    | -                                   | -          | Readily          |
| fatty acids, C14-18 and C16-18-unsatd., maleated   | -                                   | -          | Not readily      |

### 12.3 Bioaccumulative potential

| Product/ingredient name                            | LogP <sub>ow</sub> | BCF             | Potential |
|--|--------------------|-----------------|-----------|
| dimethyl ether                                     | 0,07               | -               | Low       |
| n-butyl acetate                                    | 2,3                | 10              | Low       |
| Ethylacetate                                       | 0,68               | 30              | Low       |
| 1-methoxy-2-propanol                               | <1                 | <100            | Low       |
| 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate | 4,1                | 5340 [OECD 305] | High      |
| 2-methoxy-1-methylethyl acetate                    | 1,2                | -               | Low       |
| maleic anhydride                                   | -2,78              | -               | Low       |

### 12.4 Mobility in soil

#### Soil/water partition coefficient

| Product/ingredient name                            | logKoc | Koc     |
|--|--------|---------|
| dimethyl ether                                     | 0,44   | 2,76229 |
| n-butyl acetate                                    | 1,5    | 33,2139 |
| Ethylacetate                                       | 1,3    | 18,1744 |
| 1-methoxy-2-propanol                               | 1      | 10,447  |
| 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate | 2,8    | 652,797 |
| 2-methoxy-1-methylethyl acetate                    | 0,36   | 2,31363 |
| maleic anhydride                                   | 1,1    | 11,4841 |

#### Results of PMT and vPvM assessment

| Product/ingredient name                            | PMT | P  | M  | T  | vPvM | vP | vM |
|--|-----|----|----|----|------|----|----|
| dimethyl ether                                     | No  | No | No | No | No   | No | No |
| n-butyl acetate                                    | No  | No | No | No | No   | No | No |
| Ethylacetate                                       | No  | No | No | No | No   | No | No |
| 1-methoxy-2-propanol                               | No  | No | No | No | No   | No | No |
| 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate | No  | No | No | No | No   | No | No |
| 2-methoxy-1-methylethyl acetate                    | No  | No | No | No | No   | No | No |
| fatty acids, C14-18 and C16-18-unsatd., maleated   | No  | No | No | No | No   | No | No |
| maleic anhydride                                   | No  | No | No | No | No   | No | No |

**Mobility** : Volatile. This product is likely to volatilise rapidly into the air because of its high vapour pressure.

## SECTION 12: Ecological information

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PMT or vPvM.

### 12.5 Results of PBT and vPvB assessment

#### Regulation (EC) No. 1907/2006 [REACH]

| Product/ingredient name                                   | PBT | P   | B   | T   | vPvB | vP  | vB  |
|---|-----|-----|-----|-----|------|-----|-----|
| dimethyl ether  | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| n-butyl acetate   | No  | N/A | No  | No  | No   | N/A | No  |
| Ethylacetate  | No  | N/A | No  | No  | No   | N/A | No  |
| 1-methoxy-2-propanol                                      | No  | No  | No  | No  | No   | No  | No  |
| 1-isopropyl-<br>2,2-dimethyltrimethylene<br>diisobutyrate | N/A | N/A | Yes | Yes | N/A  | N/A | Yes |
| 2-methoxy-1-methylethyl<br>acetate                        | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| fatty acids, C14-18 and<br>C16-18-unsatd., maleated       | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| maleic anhydride  | N/A | N/A | N/A | Yes | N/A  | N/A | N/A |

#### Regulation (EC) No. 1272/2008 [CLP]

| Product/ingredient name                                   | PBT | P  | B  | T  | vPvB | vP | vB |
|---|-----|----|----|----|------|----|----|
| dimethyl ether  | No  | No | No | No | No   | No | No |
| n-butyl acetate   | No  | No | No | No | No   | No | No |
| Ethylacetate  | No  | No | No | No | No   | No | No |
| 1-methoxy-2-propanol                                      | No  | No | No | No | No   | No | No |
| 1-isopropyl-<br>2,2-dimethyltrimethylene<br>diisobutyrate | No  | No | No | No | No   | No | No |
| 2-methoxy-1-methylethyl<br>acetate                        | No  | No | No | No | No   | No | No |
| fatty acids, C14-18 and<br>C16-18-unsatd., maleated       | No  | No | No | No | No   | No | No |
| maleic anhydride  | No  | No | No | No | No   | No | No |

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PBT or vPvB.

#### Regulation (EC) No. 1272/2008 [CLP]

### 12.6 Endocrine disrupting properties

Not available.

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

### 13.1 Waste treatment methods

#### Product

2500 Hard-Hat Topcoat Transparent

## SECTION 13: Disposal considerations

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.





**Hazardous waste** : Yes.

**European waste catalogue (EWC)**

| Waste code | Waste designation   |
|------------|---|
| 20 01 27*  | paint, inks, adhesives and resins containing hazardous substances |

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

## SECTION 14: Transport information

|  | ADR/RID  | ADN  | IMDG  | IATA   |
|--|--|--|---|--|
| <b>14.1 UN number or ID number</b>     | UN1950   | UN1950   | UN1950  | UN1950   |
| <b>14.2 UN proper shipping name</b>    | AEROSOLS, flammable  | AEROSOLS, flammable  | AEROSOLS, flammable   | AEROSOLS, flammable  |
| <b>14.3 Transport hazard class(es)</b> | 2<br> | 2<br> | 2.1<br> | 2.1<br> |
| <b>14.4 Packing group</b>              | -  | -  | -   | -  |
| <b>14.5 Environmental hazards</b>      | No.  | No.  | No.   | No.  |

### Additional information ADR

**Limited quantity** : 1L  
**Transport Category** : 2  
**Classification code** : 5F  
**ADR Label Model Number** : 2.1  
**Excepted Quantity** : E0  
**Tunnel code** : (D)  
**Packing instructions** : P207, LP200  
**Mixed Packing Provisions** : MP9  
**Special Packing Provisions** : PP87, RR6, L2  
**Special provisions** : 190, 327, 344, 625

### Additional information ADN

**Limited quantity** : 1L  
**Classification code** : 5F  
**Special provisions** : 190, 327, 344, 625

### Additional information IMDG

2500 Hard-Hat Topcoat Transparent

## SECTION 14: Transport information

- Limited quantity** : 1L  
**Emergency schedules** : F-D, S-U  
**Segregation code** : SG69 - For AEROSOLS with a maximum capacity of 1 L: segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 L: segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: segregation as for the appropriate subdivision of class 2.  
**Special provisions** : 63, 190, 277, 327, 344, 381, 959

### Additional information IATA

- Passenger and Cargo Aircraft** : Quantity limitation 75kg Packaging instruction 203  
**Cargo aircraft** : Quantity limitation 150kg Packaging instruction 203  
**Limited Quantities - Passenger Aircraft** : Quantity limitation 30kg Packaging instruction Y203  
**Special provisions** : A145, A167, A802

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Maritime transport in bulk according to IMO instruments** : Not available.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

| Product/ingredient name           | %   | Designation [Usage] |
|-----------------------------------|-----|---------------------|
| 2500 Hard-Hat Topcoat Transparent | ≥90 | 3                   |

**Labelling** : Not applicable.

##### Synthetic polymer microparticles - Designation 78

**Generic identity of polymer(s)** : Not applicable.

**Total percentage of synthetic polymer microparticles** : Not applicable.

##### Other EU regulations

- VOC** : Exempt  
**VOC for Ready-for-Use Mixture** : Exempt

## SECTION 15: Regulatory information

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

**Explosive precursors** : Not applicable.

### Ozone depleting substances (EU 2024/590)

Not listed.

### Prior Informed Consent (PIC) (649/2012/EC)

Not listed.

### Persistent Organic Pollutants (850/2004/EC)

Not listed.

**Aerosol dispensers** :

3



Extremely flammable

### Seveso Directive

This product is controlled under the Seveso Directive.

### Danger criteria

|                 |
|-----------------|
| <b>Category</b> |
| P3a             |

### National regulations

#### Austria

**VbF class** : Category 1

**Storage code** : LGK2B

**Classification, packaging and labelling** : Not available.

**Limitation of the use of organic solvents** : Forbidden

**Waste catalogue** : 59803

**References** : Federal Law Gazette Nr. 240/1991 - Regulation on Combustible liquids - Warning Classes  
Ministry of the Economy and Labor 2003 - GKV 2003 - Decree 429/2011  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

#### Belgium

## SECTION 15: Regulatory information

**References** : Royal Decree of 2 December 1993 concerning the protection of workers against the risks related to exposure to carcinogens and mutagens at work  
Royal Decree 374/2001, protection of the health and safety of workers from the risks related to chemical agents at work  
Royal Decree of 17 May 2007, amending the Royal Decree of 11 March 2002 relating to the protection of the health and the safety of workers against the risks related to chemical agents in the workplace, Belgium State Gazette 2007-2327 of 7 June 2007.  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Bulgaria

**References** : Ordinance No. 9 of 4 August 2006 on the protection of workers from the risks related to exposure to asbestos at work  
Ordinance No. 13 of 30 December 2003 on the protection of workers from the risks related to exposure to chemical agents at work  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Croatia

**References** : Regulation about Maximum Exposure Limits of harmful substances in the atmosphere of the working environment NN 92/93  
Regulation about application of personal safety equipment NN 39/06  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Cyprus

**References** : -

### Czech Republic

**Storage code** : I

**References** : Decree of the government no. 441/2004 Sb., which amends Decree of the government no. 178/2001 Sb., which implements the health and safety at work conditions, according to the Decree of the government no. 523/2002 Sb.  
Decree of the government no. 194/2001 Sb., which implements the technical requirements for aerosol dispensers EC Regulation 1907/2006 (REACH), EC Regulation 1272/2008 (CLP), EC Regulation 648/2004 on detergents, Act No. 350/2011 Coll. on chemical substances and chemical mixtures, Act No. 185/2001 Coll. on waste, Decree No. 381/2001 Coll., Catalog of waste, Decree No. 383/2001 Coll., on details of waste management, Act No. 258/2000 Coll. on public health, Government Regulation No. 361/2007 Coll., establishing the conditions for health protection at work, Act No. 201/2012 Coll., on air protection and related decrees, Act No. 477/2001 Coll. on packaging, Decree No. 48/1982 Coll., which establishes basic requirements to ensure the safety of work and technical equipment, communication No. 8/2013 Coll. m.s. (ADR), notice No. 23/2013 Coll. (RID), Czech state standards  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Denmark

**Product registration number** : 4397683

**Fire class** : I-1

## SECTION 15: Regulatory information

**Denmark – Cancer risks** : Not listed

**MAL-code** : 4-3

**Protection based on MAL** : **According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:**

**General:** Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other recommended use of eye protection is not required.

In all spraying operations in which there is return spray, respiratory protection with air supply and arm protectors/apron/coveralls/protective clothing must be worn as appropriate or as instructed.

MAL-code: 4-3

**Application:** When spraying in new\* booths if the operator is outside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

- Air-supplied half mask and eye protection must be worn.

When using scraper or knife, brush, roller, etc. for pre- and post-treatments in cabins or booths of the existing\* facility type, if the operator is inside the spray zone.

- Air-supplied half mask, coveralls and eye protection must be worn.

During downtimes, cleaning and repair in closed facilities, spray booths or cabins, if there is a risk of contact with wet paint or organic solvents.

- Air-supplied full mask and coveralls must be worn.

When spraying in existing\* spray booths, if the operator is outside the spray zone.

- Air-supplied full mask, arm protectors and apron must be worn.

During non-atomising spraying in existing\* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone.

- Air-supplied full mask must be worn.

During all spraying where atomisation occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Air-supplied full mask, coveralls and hood must be worn.

**Drying:** Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc. must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

**Polishing:** When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

**Caution** The regulations contain other stipulations in addition to the above.

## SECTION 15: Regulatory information

\*See Regulations.

|  |   |
|--|---|
| <b>MAL-code for ready-for-use mixture</b>                | : Not applicable.   |
| <b>Protection based on MAL for ready-for-use mixture</b> | : Not applicable.   |
| <b>Low-boiling liquids</b>                               | : Not applicable.<br>Not applicable.  |
| <b>Restrictions on use</b>                               | : This product contains low-boiling point liquids. Any respiratory protective equipment should be air-fed.<br>: Not to be used by professional users below 18 years of age. See the National Working Environment Authorities Executive Order regarding Young People At Work.  |
| <b>List of undesirable substances</b>                    | : Not listed  |
| <b>Carcinogenic waste</b>                                | : Not applicable.   |
| <b>Waste card number</b>                                 | : 03.21   |
| <b>Waste group</b>                                       | : Z   |
| <b>Remark</b>  | : Not available.  |
| <b>References</b>  | : Executive Order no. 301 of 13 May 1993 "Executive order on the determination of code numbers". (MAL code)<br>Executive Order no. 302 of 13 May 1993 "Executive Order on work with products with code numbers". (MAL code)<br>Executive Order no. 559 of 4 July 2002 "Executive Order on special duties for manufacturers, suppliers and importers etc. of substances and materials according to the law on the working environment".<br>Executive Order no. 908 of 27 September 2005 "Executive Order on measures for prevention of cancer risk when working with substances and materials".<br>Executive Order no. 239 of 6 April 2005 "Executive Order on young people's work".<br>Danish Working Environment Authority Guidance No. C.0.1. of August 2007 "Trace limit value list for substances and materials".<br>Executive Order no. 571 of 29 November 1984 "Executive Order on use of propellants and solvents in aerosol containers".<br>Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878<br>REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC |
| <b><u>Estonia</u></b>                                    |   |
| <b>References</b>  | : Regulation of the Estonian Government of 02.02.2000 No. 32 Occupational health and occupational safety requirements for asbestos.<br>Regulation of the Estonian Government of 15.12.2005 No. 309 Occupational health and occupational safety requirements for carcinogenic and mutagenic substances.<br>Regulation of the Estonian Government of 18.09.2001 No. 293 Occupational exposure limits of chemicals.<br>Regulation of the Estonian Government of 20.03.2001 No. 105 Occupational health and occupational safety requirements for handling dangerous chemicals and materials.<br>Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878<br>REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC   |
| <b><u>Finland</u></b>                                    |   |
| <b>NACE</b>  | : Not available.  |
| <b>UC62</b>  | : Not available.  |

## SECTION 15: Regulatory information

**References** : Regulation of the Ministry of Social Affairs and Health on occupational exposure limit values 795/2007  
 Aerosol regulation amendment 805/1994  
 Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
 REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### France

**Social Security Code, Articles L 461-1 to L 461-7** : dimethyl ether RG 84  
 n-butyl acetate RG 84  
 Ethylacetate RG 84  
 1-methoxy-2-propanol RG 84  
 2-methoxy-1-methylethyl acetate RG 84  
 maleic anhydride RG 66

**Classified installations for environmental protection** : Not available.

**Reinforced medical surveillance** : Decree n ° 2012-135 of January 30, 2012 relating to the organization of occupational medicine: applicable

**Remark** : Not available.

**References** : Tables of anticipated professional diseases according to article R461-3 of the labour code  
 Labour code: Regulatory and recommended occupational exposure limits: Art. R231-55 to Art. R231-55-3.  
 Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
 REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Germany

**Storage class (TRGS 510)** : 2B

### Hazardous incident ordinance

This product is controlled under the Germany Hazardous Incident Ordinance.

### Named substances

| Name | Reference number |
|------|------------------|
|      |                  |

### Danger criteria

| Category | Reference number |
|----------|------------------|
| P3a      | 1.2.3.1          |

**Hazard class for water** : 1

### Technical instruction on air quality control (TA Luft)

| Number [Class] | Description        |
|----------------|--------------------|
| 5.2.1          | Total dust         |
| 5.2.5          | Organic substances |
| 5.2.5 [I]      | Organic substances |

**AOX** : Not available.

## SECTION 15: Regulatory information

**References** : Regulation on the restrictions on the marketing and use of certain dangerous substances, preparations and articles according to the Chemicals Law  
Technical Rules for Hazardous Substances (TRGS): Occupational Exposure Limits (TRGS 900)  
Technical Rules for Hazardous Substances (TRGS): Directory of carcinogenic, mutagenic and reprotoxic substances (TRGS 905)  
First General Administrative Regulation Pertaining to the Federal Immission Control Act (Technical Instructions on Air Quality Control – TA Luft)  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Greece

**References** : Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878

### Hungary

**References** : Decree No. 44/2000 (XII.27.) EüM of the Ministry of Health on detailed arrangements for certain procedures, activities relating to dangerous substances and dangerous preparations plus amendments  
Decree No. 25/2000 (IX.30.) EüM of the Ministry of Health on chemical safety at work plus amendments  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Ireland

**References** : Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001)  
Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 (S.I. No. 78 of 2001)  
Safety, Health and Welfare at Work (General Application) Regulations 2007  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Italy

**D.Lgs. 152/06** : Not determined.

**References** : Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878

### Latvia

**References** : Regulation of Cabinet of Ministers No. 325 of 15 May 2007 "Labour protection requirements for contact with chemical substances in the workplace"  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Lithuania

**References** : Regulation about application of personal safety equipment NN 39/06  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Luxembourg

## SECTION 15: Regulatory information

- References** : -
- Malta**
- References** : -
- Netherlands**
- Water Discharge Policy (ABM)** : A(3) Hazardous for aquatic organisms, may have long-term hazardous effects in aquatic environment. Decontamination effort: A
- Remark** : Empty spraycans may be disposed of as ordinary solid non-hazardous waste.
- References** : Water Discharge Policy (ABM)  
Netherlands Emission Guidelines for Air (NeR)  
List of carcinogenic substances and processes according to article 4.11 of the Working Conditions Act; Health and Safety Act  
List of mutagenic substances and processes according to article 4.11 of the Working Conditions Act; Health and Safety Act  
Non-limited list of reprotoxic substances (with additional registration requirement) according to article 4..2a(2) of the Working Conditions Act; Health and Safety Act  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Poland**
- References** : Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Portugal**
- References** : Occupational Health and Safety. Professional exposure limit values for chemical agents (NP 1796 2007)  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Romania**
- References** : Order 595-2002 approving technical Regulations regarding spray aerosol containers  
Governmental Decision 1218-2006 on establishing the minimum requirements of labour safety and health for ensuring the protection of workers against risks connected to the presence of chemical agents  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Slovakia**
- References** : Government regulation no. 45/2002 Consolidated to 16 January 2002 on the protection of health at work from chemical agents  
Government Regulation 301/2007 on the protection of workers from risks associated with exposure to carcinogenic and mutagenic factors  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Slovenia**

## SECTION 15: Regulatory information

**References** : Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Spain

**References** : Royal Decree 374/2001, protection of the health and safety of workers from the risks related to chemical agents at work  
ROYAL DECREE 2549/1994. Regulation on aerosol dispensers  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### Sweden

**Ordinance on Thermoset Plastics** : Not applicable.

**Thermoset plastic waste** : Not available.

**Waste group** : 200127\*

**Flammable liquid class (SRVFS 2005:10)** : 1

**References** : Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### International regulations

#### Stockholm Convention on Persistent Organic Pollutants

| List name   | Ingredient name | Status |
|-------------|-----------------|--------|
| Not listed. |                 |        |

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

| List name   | Ingredient name | Status |
|-------------|-----------------|--------|
| Not listed. |                 |        |

**CN code** : 3208 10 90 00

### Inventory list

- Australia** : At least one component is not listed.
- Canada** : Not determined.
- China** : All components are listed or exempted.
- Eurasian Economic Union** : **Russian Federation inventory**: Not determined.
- Japan** : **Japan inventory (CSCL)**: At least one component is not listed.  
**Japan inventory (ISHL)**: At least one component is not listed.
- New Zealand** : All components are listed or exempted.
- Philippines** : All components are listed or exempted.
- Republic of Korea** : At least one component is not listed.
- Taiwan** : All components are listed or exempted.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : Not determined.

2500 Hard-Hat Topcoat Transparent

## SECTION 15: Regulatory information

**Viet Nam** : Not determined.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification   | Justification   |
|--|---|
| Aerosol 1, H222, H229<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 | On basis of test data<br>Calculation method<br>Calculation method |

### Full text of abbreviated H statements

#### Europe

|  |            |  |
|--|------------|--|
| <b>Full text of abbreviated H statements</b> : | H220       | Extremely flammable gas.   |
|  | H222, H229 | Extremely flammable aerosol. Pressurised container: may burst if heated.   |
|  | H225       | Highly flammable liquid and vapour.  |
|  | H226       | Flammable liquid and vapour.   |
|  | H280       | Contains gas under pressure; may explode if heated.                        |
|  | H302       | Harmful if swallowed.  |
|  | H314       | Causes severe skin burns and eye damage.                                   |
|  | H315       | Causes skin irritation.  |
|  | H317       | May cause an allergic skin reaction.                                       |
|  | H318       | Causes serious eye damage.   |
|  | H319       | Causes serious eye irritation.   |
|  | H334       | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
|  | H336       | May cause drowsiness or dizziness.   |
|  | H361d      | Suspected of damaging the unborn child.                                    |
|  | H372       | Causes damage to organs through prolonged or repeated exposure.            |
|  | H412       | Harmful to aquatic life with long lasting effects.                         |
|  | EUH066     | Repeated exposure may cause skin dryness or cracking.                      |
|  | EUH071     | Corrosive to the respiratory tract.  |

|   |                    |   |
|---|--------------------|---|
| <b>Full text of classifications [CLP/GHS]</b> : | Acute Tox. 4       | ACUTE TOXICITY - Category 4                     |
|   | Aerosol 1          | AEROSOLS - Category 1                           |
|   | Aquatic Chronic 3  | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 |
|   | Eye Dam. 1         | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1  |
|   | Eye Irrit. 2       | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2  |
|   | Flam. Gas 1A       | FLAMMABLE GASES - Category 1A                   |
|   | Flam. Liq. 2       | FLAMMABLE LIQUIDS - Category 2                  |
|   | Flam. Liq. 3       | FLAMMABLE LIQUIDS - Category 3                  |
|   | Press. Gas (Comp.) | GASES UNDER PRESSURE - Compressed gas           |

## SECTION 16: Other information

|               |   |
|---------------|---|
| Repr. 2       | REPRODUCTIVE TOXICITY - Category 2                              |
| Resp. Sens. 1 | RESPIRATORY SENSITISATION - Category 1                          |
| Skin Corr. 1B | SKIN CORROSION/IRRITATION - Category 1B                         |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2                          |
| Skin Sens. 1  | SKIN SENSITISATION - Category 1                                 |
| Skin Sens. 1A | SKIN SENSITISATION - Category 1A                                |
| STOT RE 1     | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1 |
| STOT SE 3     | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3   |

**Date of printing** : 19/02/2026

**Date of issue/ Date of revision** : 29/09/2023

**Date of previous issue** : 29/09/2023

**Version** : 8

### Notice to reader

**IMPORTANT NOTE:** The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

**MANUFACTURER'S DISCLAIMER:** the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.