



SAFETY DATA SHEET

PVDF Primer

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

1.1 Product identifier

Product name : PVDF Primer
Product description : Paint.
Product type : Liquid.
UFI : RF11-F0F3-600F-VAC7

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

| Identified uses | |
|--------------------------------------|---|
| Industrial uses Professional uses | |
| Uses advised against | Reason |
| Consumer use | Product is not intended for consumer use. |

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

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

1.4 Emergency telephone number

Supplier

Telephone number : +44 (0) 207 858 1228
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]

Flam. Liq. 3, H226
 STOT SE 3, H336
 Aquatic Chronic 2, H411

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

SECTION 2: Hazards identification

Hazard pictograms



Signal word

: Warning

Hazard statements

: Flammable liquid and vapour.
May cause drowsiness or dizziness.
Toxic to aquatic life with long lasting effects.

Precautionary statements

General

: Not applicable.

Prevention

: P210 - Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P261 - Avoid breathing vapour or spray.
P273 - Avoid release to the environment.
P271 - Use only outdoors or in a well-ventilated area.

Response

: P303 - IF ON SKIN (or hair):
P361 - Take off immediately all contaminated clothing.
P353 - Rinse skin with water or shower.
P312 - Call a doctor if you feel unwell.
P391 - Collect spillage.

Storage

: P403 - Store in a well-ventilated place.
P235 - Keep cool.
P405 - Store locked up.

Disposal

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

Hazardous ingredients

: hydrocarbons, aromatic, C9

Supplemental label elements

: Repeated exposure may cause skin dryness or cracking.

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.

Other hazards which do not result in classification

: None known.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

: Mixture

| Product/ingredient name | Identifiers | % | Classification | |
|---|---|-----------|--|---------|
| | | | Regulation (EC) No. 1272/2008 [CLP] | Type |
| hydrocarbons, aromatic, C9 | REACH #: 01-2119455851-35 EC: 918-668-5 CAS: 64742-95-6 Index: 649-356-00-4 | ≥25 - ≤50 | Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066 | [1] |
| barium diboron tetraoxide | EC: 237-222-4 CAS: 13701-59-2 | ≤10 | Acute Tox. 4, H302 Repr. 1, H360FD (Fertility and Unborn child) | [1] [2] |
| diphenyl tolyl phosphate | EC: 247-693-8 CAS: 26444-49-5 | ≤5 | Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) | [1] |
| xylene (mixture of isomeres) | REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 | ≤3 | Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 | [1] [2] |
| hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics | REACH #: 01-2119463258-33 EC: 919-857-5 Index: 649-327-00-6 | ≤3 | Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066 | [1] [2] |
| trizinc bis (orthophosphate) | REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6 | ≤3 | Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) | [1] |
| 1-methoxy-2-propanol | REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3 | ≤3 | Flam. Liq. 3, H226 STOT SE 3, H336 | [1] [2] |
| hydrocarbons, C11-C14, n-/ iso-/ cyclo-alkanes, aromatics (2-25%) | REACH #: 01-2119456377-30 EC: 265-149-8 CAS: 64742-47-8 Index: 649-422-00-2 | ≤3 | Asp. Tox. 1, H304 EUH066 | [1] [2] |
| ethylbenzene | REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 | ≤3 | Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 | [1] [2] |
| zinc oxide | REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7 | ≤1 | Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) | [1] |
| | | | See Section 16 for the full text of the H statements declared above. | |

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.

Type

SECTION 3: Composition/information on ingredients

- [1] Substance classified with a health or environmental hazard
 [2] Substance with a workplace exposure limit
 [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
 [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
 [5] Substance of equivalent concern

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Immediately flush eyes with running water for at least 7 minutes, keeping eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- 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

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Over-exposure signs/symptoms

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

SECTION 4: First aid measures

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Flammable liquid and vapour. 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. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 phosphorus oxides
 halogenated compounds
 metal oxide/oxides

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** : No unusual hazard if involved in a fire.

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. 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".

SECTION 6: Accidental release measures

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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

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 : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.
Information on fire and explosion protection
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 7: Handling and storage

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

| Category | Notification and MAPP threshold | Safety report threshold |
|----------|---------------------------------|-------------------------|
| P5c | 5000 tonne | 50000 tonne |
| E2 | 200 tonne | 500 tonne |

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

| Product/ingredient name | Exposure limit values |
|---|--|
| barium diboron tetraoxide | EH40/2005 WELs (United Kingdom (UK), 12/2011). Notes: as Ba TWA: 0,5 mg/m ³ , (as Ba) 8 hours. |
| xylene (mixture of isomeres) | EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 441 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. |
| hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics | EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 850 mg/m ³ , (as turpentine (150 ppm)) 15 minutes. Form: Vapour TWA: 566 mg/m ³ , (as turpentine (100 ppm)) 8 hours. Form: Vapour |
| 1-methoxy-2-propanol | EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 560 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. |
| hydrocarbons, C11-C14, n-/ iso-/ cyclo-alkanes, aromatics (2-25%) | EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 850 mg/m ³ , (as turpentine (150 ppm)) 15 minutes. Form: Vapour TWA: 566 mg/m ³ , (as turpentine (100 ppm)) 8 hours. Form: Vapour |
| ethylbenzene | EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 552 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 441 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. |

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to 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 | Type | Exposure | Value | Population | Effects |
|--|------|-----------------------|------------------------|--------------------------------|----------|
| xylene (mixture of isomers) | DNEL | Short term Inhalation | 289 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 289 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 77 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 180 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 174 mg/m ³ | General population [Consumers] | Local |
| | DNEL | Short term Inhalation | 174 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Long term Inhalation | 14,8 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Long term Dermal | 108 mg/m ³ | General population [Consumers] | Systemic |
| hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics | DNEL | Long term Dermal | 208 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 871 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Oral | 125 mg/kg bw/day | General population [Consumers] | Systemic |
| | DNEL | Long term Inhalation | 185 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Long term Dermal | 125 mg/kg bw/day | General population [Consumers] | Systemic |
| trizinc bis(orthophosphate) | DNEL | Long term Inhalation | 5 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 2,5 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Long term Dermal | 83 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Dermal | 83 mg/kg bw/day | General population [Consumers] | Systemic |
| | DNEL | Long term Oral | 0,83 mg/kg bw/day | General population [Consumers] | Systemic |

SECTION 8: Exposure controls/personal protection

| | | | | | |
|----------------------|------|-----------------------|-------------------------|--------------------------------|----------|
| 1-methoxy-2-propanol | DNEL | Short term Inhalation | 553,5 mg/m ³ | Workers | Local |
| | DNEL | Long term Inhalation | 369 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 50,6 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 43,9 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Long term Dermal | 18,1 mg/kg bw/day | General population [Consumers] | Systemic |
| | DNEL | Long term Oral | 3,3 mg/kg bw/day | General population [Consumers] | Systemic |
| ethylbenzene | DNEL | Long term Inhalation | 77 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 15 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Long term Oral | 1,6 mg/kg bw/day | General population [Consumers] | Systemic |
| zinc oxide | DNEL | Long term Inhalation | 5 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 2,5 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Long term Dermal | 83 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Dermal | 83 mg/kg bw/day | General population [Consumers] | Systemic |
| | DNEL | Long term Oral | 0,83 mg/kg bw/day | General population [Consumers] | Systemic |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|------------------------------|-----------------------------|-------------|---------------|
| xylene (mixture of isomeres) | Fresh water | 0,327 mg/l | - |
| | Marine water | 0,327 mg/l | - |
| | Fresh water sediment | 12,46 mg/kg | - |
| | Marine water sediment | 12,46 mg/kg | - |
| | Soil | 2,31 mg/kg | - |
| | Sewage Treatment Plant | 6,58 mg/l | - |
| | trizinc bis(orthophosphate) | Fresh water | 48,1 µg/l |
| Marine | | 14,2 µg/l | - |
| Fresh water sediment | | 550,2 mg/kg | - |
| Marine water sediment | | 263,9 mg/kg | - |
| Soil | | 249,4 mg/kg | - |
| Sewage Treatment Plant | | 121,4 µg/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 | - |
| | ethylbenzene | Fresh water | 0,1 mg/l |

SECTION 8: Exposure controls/personal protection

| | | | |
|------------|------------------------|----------------|---|
| zinc oxide | Marine water | 0,01 mg/l | - |
| | Fresh water sediment | 13,7 mg/kg | - |
| | Marine water sediment | 1,37 mg/kg | - |
| | Soil | 2,68 mg/kg | - |
| | Sewage Treatment Plant | 9,6 mg/l | - |
| | Fresh water | 25,6 µg/l | - |
| | Marine | 7,6 µg/l | - |
| | Sewage Treatment Plant | 64,7 µg/l | - |
| | Fresh water sediment | 146 mg/kg dwt | - |
| | Marine water sediment | 70,3 mg/kg dwt | - |
| | Soil | 44,3 mg/kg dwt | - |

8.2 Exposure controls

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: safety glasses with side-shields. (EN 166)

Skin protection

Hand 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.

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: > 8 hours (breakthrough time): nitrile rubber (0.5mm)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

EN 374

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.

SECTION 8: Exposure controls/personal protection

- 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: Wear overalls or long sleeved shirt. (EN 1149-1)
- 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** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: organic vapour filter (Type A) (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**9.1 Information on basic physical and chemical properties****Appearance**

- Physical state** : Liquid.
- Colour** : Various
- Odour** : Hydrocarbon.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : -20°C
- Initial boiling point and boiling range** : >160°C
- Flash point** : Closed cup: 40°C [Setaflash.]
- Evaporation rate** : 0,2 (Butyl acetate. = 1)
- Flammability (solid, gas)** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Vapour may travel a considerable distance to source of ignition and flash back.
- Upper/lower flammability or explosive limits** : Lower: 0,6%
Upper: 8%
- Vapour pressure** : Not available.
- Vapour density** : >1 [Air = 1]
- Relative density** : 1,14 to 1,17
- Solubility(ies)** : Very slightly soluble in the following materials: methanol and acetone. Insoluble in the following materials: cold water, hot water, diethyl ether and n-octanol.
- Partition coefficient: n-octanol/ water** : Not available.
- Auto-ignition temperature** : 250°C
- Decomposition temperature** : Not available.
- Viscosity** : Dynamic (room temperature): 500 mPa·s
- Explosive properties** : Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.
- Oxidising properties** : Not available.

SECTION 9: Physical and chemical properties**9.2 Other information**

No additional information.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.
- 10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire, toxic gases including CO, CO₂ and smoke can be generated.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|------------------------------------|------------|-------------------------|----------|
| hydrocarbons, aromatic, C9 | LD50 Oral | Mouse | 8400 mg/kg | - |
| | LD50 Oral | Rat | 8400 mg/kg | - |
| barium diboron tetraoxide | LD50 Oral | Rat | 3800 mg/kg | - |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| diphenyl tolyl phosphate | LD50 Oral | Rat | 1420 mg/kg | - |
| | LD50 Oral | Rat | 1420 mg/kg | - |
| xylene (mixture of isomeres) | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LC50 Inhalation Gas. | Rat | 6670 ppm | 4 hours |
| | LC50 Inhalation Vapour | Rat | 29091 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | 4,2 g/kg | - |
| LD50 Oral | Rat | 4300 mg/kg | - | |
| | TDL _o Dermal | Rabbit | 4300 mg/kg | - |
| trizinc bis(orthophosphate) | LC50 Inhalation Dusts and mists | Rat | >5,7 mg/l | 4 hours |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| 1-methoxy-2-propanol | LC50 Inhalation Vapour | Rat | 55000 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | 13 g/kg | - |
| | LD50 Oral | Rat | 6600 mg/kg | - |
| hydrocarbons, C11-C14, n-/iso-/ cyclo-alkanes, aromatics (2-25%) | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | >6312 mg/kg | - |
| ethylbenzene | LC50 Inhalation Vapour | Rat | 50000 mg/m ³ | 2 hours |
| | LC50 Inhalation Vapour | Rat | 17 mg/l | 4 hours |
| | LCL _o Inhalation Vapour | Rat | 4000 ppm | 4 hours |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| zinc oxide | LC50 Inhalation Dusts and mists | Mouse | 2500 mg/m ³ | 4 hours |
| | LC50 Inhalation Dusts and mists | Rat | >5700 mg/m ³ | 4 hours |

SECTION 11: Toxicological information

| | | | | |
|--|-----------|-----|----------|---|
| | LD50 Oral | Rat | >15 g/kg | - |
|--|-----------|-----|----------|---|

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

Acute toxicity estimates

Not available.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-------|--------------------------|-------------|
| hydrocarbons, aromatic, C9 | Eyes - Mild irritant | Rabbit | - | 24 hours 100 microliters | - |
| xylene (mixture of isomeres) | Eyes - Mild irritant | Rabbit | - | 87 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 milligrams | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 microliters | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| 1-methoxy-2-propanol | Skin - Moderate irritant | Rabbit | - | 100 Percent | - |
| | Eyes - Moderate irritant | Rabbit | - | - | - |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 500 milligrams | - |
| hydrocarbons, C11-C14, n-/iso-/ cyclo-alkanes, aromatics (2-25%) ethylbenzene | Eyes - Cornea opacity | Rabbit | 1 | - | - |
| | Eyes - Severe irritant | Rabbit | - | 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 milligrams | - |
| zinc oxide | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |

Conclusion/Summary

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

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

Respiratory : May cause drowsiness or dizziness. May cause respiratory irritation.

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|--|-------------------|---------|-----------------|
| hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics | skin | Rabbit | Not sensitizing |
| hydrocarbons, C11-C14, n-/iso-/ cyclo-alkanes, aromatics (2-25%) | skin | Rabbit | Not sensitizing |

Conclusion/Summary

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

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

Mutagenicity

| Product/ingredient name | Test | Experiment | Result |
|--|----------|--|----------|
| hydrocarbons, aromatic, C9 | OECD 471 | Subject: Bacteria | Negative |
| hydrocarbons, C11-C14, n-/iso-/ cyclo-alkanes, aromatics (2-25%) | OECD 471 | Experiment: In vivo Subject: Bacteria | Negative |

SECTION 11: Toxicological information

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

Carcinogenicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|----------------------|---------|------|----------|
| hydrocarbons, C11-C14, n-/ iso-/ cyclo-alkanes, aromatics (2-25%) | Negative - Oral - TD | Rat | - | - |

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

Reproductive toxicity

| Product/ingredient name | Maternal toxicity | Fertility | Developmental toxin | Species | Dose | Exposure |
|---|-------------------|-----------|---------------------|------------------------------|------------------------------|----------|
| hydrocarbons, aromatic, C9 | - | - | Negative | Mammal - species unspecified | Route of exposure unreported | - |
| hydrocarbons, C11-C14, n-/ iso-/ cyclo-alkanes, aromatics (2-25%) | - | Negative | Negative | Rat | Oral | - |

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

Teratogenicity

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

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|---|------------|-------------------|------------------------------|
| hydrocarbons, aromatic, C9 | Category 3 | Not applicable. | Narcotic effects |
| xylene (mixture of isomeres) | Category 3 | Not applicable. | Respiratory tract irritation |
| hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics | Category 3 | Not applicable. | Respiratory tract irritation |
| 1-methoxy-2-propanol | Category 3 | Not applicable. | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|------------------------------|------------|-------------------|----------------|
| xylene (mixture of isomeres) | Category 2 | Not determined | Not determined |
| ethylbenzene | Category 2 | Not determined | hearing organs |

Aspiration hazard

| Product/ingredient name | Result |
|---|--------------------------------|
| hydrocarbons, aromatic, C9 | ASPIRATION HAZARD - Category 1 |
| xylene (mixture of isomeres) | ASPIRATION HAZARD - Category 1 |
| hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics | ASPIRATION HAZARD - Category 1 |
| hydrocarbons, C11-C14, n-/ iso-/ cyclo-alkanes, aromatics (2-25%) | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

SECTION 11: Toxicological information

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

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

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.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

| Product/ingredient name | Result | Species | Exposure |
|--|--|---|----------|
| barium diboron tetraoxide | Acute EC50 20,3 to 22,4 ppm Fresh water | Daphnia spec. - Daphnia magna - Larvae | 48 hours |
| | Acute LC50 151 to 299 ppm Fresh water | Fish - Lepomis macrochirus | 96 hours |
| | Acute LC50 145 µg/l Fresh water | Fish - Rasbora heteromorpha | 96 hours |
| | Acute LC50 62 to 84,5 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| diphenyl tolyl phosphate xylene (mixture of isomeres) | Acute LC50 10 mg/l | Fish | 96 hours |
| | Acute NOEC 0,44 mg/l | Algae | 72 hours |
| | Chronic NOEC 1,57 mg/l | Daphnia spec. | 21 days |
| hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics | Acute NOEC 100 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Chronic NOEC 0,23 mg/l | Daphnia spec. | - |
| trizinc bis(orthophosphate) | Chronic NOEC 0,131 mg/l | Fish | - |
| | Acute EC50 5,7 mg/l | Daphnia spec. - ceriodaphnia dubia | 48 hours |
| | Acute IC50 1,87 mg/l | Algae - selenastrum capricornutum | 72 hours |
| 1-methoxy-2-propanol | Acute EC50 >1000 mg/l | Algae - Selenastrum capricornutum | 7 days |
| | Acute LC50 23300 mg/l | Daphnia spec. | 96 hours |
| | Acute LC50 20800 mg/l | Fish | 96 hours |
| hydrocarbons, C11-C14, n-/iso-/ cyclo-alkanes, aromatics (2-25%) | Acute EC10 >1000 mg/l | Daphnia spec. | 48 hours |
| | Acute IC10 >1000 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute LC50 2200 µg/l Fresh water | Fish - Lepomis macrochirus | 4 days |
| ethylbenzene | Acute LOAEL >1000 mg/l | Fish | 96 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 9,46 to 6530 µg/l Fresh water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 4,4 to 2970 µg/l Fresh | Daphnia spec. - Daphnia | 48 hours |

SECTION 12: Ecological information

| | | | |
|-------------------------|---|--|----------|
| zinc oxide | water Acute LC50 13,7 to 8780 µg/l Fresh water | magna - Neonate Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute LC50 5200 µg/l Marine water | Crustaceans - Americamysis bahia | 48 hours |
| | Acute LC50 11 to 9090 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Chronic NOEC 1000 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 0,137 mg/l | Algae | 72 hours |
| | Acute EC50 0,413 mg/l | Daphnia spec. | 48 hours |
| | Acute EC50 0,481 mg/l Fresh water | Daphnia spec. - Daphnia magna - Neonate | 48 hours |
| | Acute IC50 46 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata - Exponential growth phase | 72 hours |
| | Acute LC50 98 µg/l Fresh water | Daphnia spec. - Daphnia magna - Neonate | 48 hours |
| Chronic NOEC 0,019 mg/l | Algae | 7 days | |
| Chronic NOEC 0,082 mg/l | Daphnia spec. | 7 days | |

Conclusion/Summary : Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|--|-----------------------------|---|---------------------------------|----------|
| xylene (mixture of isomeres) | - | 90 % - Readily - 5 days | - | - |
| hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics | OECD 301F OECD 301B | 87,8 % - 28 days >80 % - Readily - 28 days | - | - |
| 1-methoxy-2-propanol | OECD 301F OECD 301E - | >80 % - Readily - 28 days 96 % - Readily - 28 days >90 % - Readily - 5 days | 1,95 gO ₂ /g ThOD | - |
| hydrocarbons, C11-C14, n-/iso-/ cyclo-alkanes, aromatics (2-25%) | OECD 301C - | 88 to 92 % - Readily - 28 days 69 % - Readily - 28 days | - | - |

Conclusion/Summary : This product has not been tested for biodegradation. Based on available data, the classification criteria are not met.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--|---------------------------------|-------------------|------------------|
| hydrocarbons, aromatic, C9 | - | - | Readily |
| xylene (mixture of isomeres) | - | - | Readily |
| hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics | - | 100%; < 28 day(s) | Readily |
| 1-methoxy-2-propanol | Fresh water <28 days, 5 to 25°C | - | Readily |
| hydrocarbons, C11-C14, n-/iso-/ cyclo-alkanes, aromatics (2-25%) | - | - | Readily |
| ethylbenzene | - | - | Readily |

12.3 Bioaccumulative potential

SECTION 12: Ecological information

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|------------------------------|--------------------|-------------|-----------|
| hydrocarbons, aromatic, C9 | 3.7 to 4.5 | - | high |
| diphenyl tolyl phosphate | 4,5 | 323,59 | low |
| xylene (mixture of isomeres) | 3,12 | 8.1 to 25.9 | low |
| hydrocarbons, C9-C11, n-/ | 5 to 6.5 | - | high |
| iso-/ cyclo-alkanes, < 2% | | | |
| aromatics | | | |
| trizinc bis(orthophosphate) | - | 60960 | high |
| 1-methoxy-2-propanol | <1 | <100 | low |
| hydrocarbons, C11-C14, n-/ | 3.5 to 4.7 | 130 to 150 | low |
| iso-/ cyclo-alkanes, | | | |
| aromatics (2-25%) | | | |
| ethylbenzene | 3,6 | - | low |
| zinc oxide | - | 60960 | high |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Volatile.

12.5 Results of PBT and vPvB assessment

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

12.6 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

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.

Disposal considerations : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

| Waste code | Waste designation |
|------------|---|
| 08 01 11* | waste paint and varnish containing organic solvents or other hazardous substances |

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 13: Disposal considerations

- Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|--|--|-------------------------------------|--|---|
| 14.1 UN number | UN1263 | UN1263 | UN1263 | UN1263 |
| 14.2 UN proper shipping name | Paint. [hydrocarbons, aromatic, C9] | Paint. [hydrocarbons, aromatic, C9] | Paint. Marine pollutant [hydrocarbons, aromatic, C9] | Paint. [hydrocarbons, aromatic, C9] |
| 14.3 Transport hazard class(es) | 3 | 3 | 3 | 3 |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | Yes. | Yes. | Yes. | Yes. |
| Additional information | <p>Remarks: This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 according to 2.2.3.1.5.2.</p> <p>ADR Tunnel code: (D/E)</p> | - | <p>Emergency schedules (EmS): F-E + S-E</p> <p>Viscous substance exemption This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 according to 2.3.2.5.</p> | <p>Passenger and Cargo Aircraft Quantity limitation: 60 L Packaging instructions: 355 Cargo Aircraft Only Quantity limitation: 220 L Packaging instructions: 366 Limited Quantities - Passenger Aircraft Quantity limitation: 10 L Packaging instructions: Y 344</p> |

- 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.

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 : Not applicable.

Other EU regulations

- VOC** : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.
- VOC for Ready-for-Use Mixture** : 2004/42/EC - IIA/h: 750g/l (2010). <= 750g/l VOC.
- Europe inventory** : All components are listed or exempted.
- Black List Chemicals (76/464/EEC)** :

| Product/ingredient name | Carcinogenic effects | Mutagenic effects | Developmental effects | Fertility effects |
|---------------------------|----------------------|-------------------|-------------------------------|----------------------------|
| barium diboron tetraoxide | - | - | Repr. 1, H360D (Unborn child) | Repr. 1, H360F (Fertility) |

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

| Category |
|-----------|
| P5c E2 |

National regulations

- Industrial use** : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.
- References** : EH40/2005 Workplace exposure limits
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2016/918

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

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Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

CN code : 3208 20 90

International lists

National inventory

| | |
|--------------------------|--|
| Australia | : All components are listed or exempted. |
| Canada | : At least one component is not listed in DSL but all such components are listed in NDSL. |
| China | : All components are listed or exempted. |
| Japan | : Japan inventory (ENCS) : Not determined. Japan inventory (ISHL) : Not determined. |
| Malaysia | : Not determined |
| New Zealand | : All components are listed or exempted. |
| Philippines | : All components are listed or exempted. |
| Republic of Korea | : Not determined. |
| Taiwan | : Not determined. |
| Turkey | : Not determined. |
| United States | : All components are listed or exempted. |
| Thailand | : Not determined. |
| Viet Nam | : Not determined. |

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

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 PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative |
|-----------------------------------|--|

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

| Classification | Justification |
|--|---|
| Flam. Liq. 3, H226 STOT SE 3, H336 Aquatic Chronic 2, H411 | On basis of test data Calculation method Calculation method |

Full text of H-phrases referred to in sections 2 and 3

SECTION 16: Other information

| | | |
|---|---|---|
| Full text of abbreviated H statements | : H225 H226 H302 H304 H312 H315 H319 H332 H335 H336 H360FD H373 H400 H410 H411 | Highly flammable liquid and vapour. Flammable liquid and vapour. Harmful if swallowed. May be fatal if swallowed and enters airways. Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. May damage fertility. May damage the unborn child. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. |
| Full text of classifications [CLP/GHS] | : Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Aquatic Chronic 2, H411 Asp. Tox. 1, H304 EUH066 Eye Irrit. 2, H319 Flam. Liq. 2, H225 Flam. Liq. 3, H226 Repr. 1, H360FD Skin Irrit. 2, H315 STOT RE 2, H373 STOT SE 3, H335 STOT SE 3, H336 | ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 ASPIRATION HAZARD - Category 1 Repeated exposure may cause skin dryness or cracking. SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 REPRODUCTIVE TOXICITY (Fertility and Unborn child) - Category 1 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 |

Date of printing : 4/12/2019

Date of issue/ Date of revision : 4/12/2019

Date of previous issue : 4/12/2019

Version : 4

Notice to reader

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 product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.