Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

SAFETY DATA SHEET

Date of issue/Date of revision

: 4 January 2023

Version : 1.01



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

| 1.1 Product identifier | |
|----------------------------------|---|
| Product name | : SIGMAFAST 205 BASE RAL 5011 |
| Product code | : 00438828 |
| Product description | : |
| Product type | : Liquid. |
| Other means of identification | : Not available. |
| 1.2 Relevant identified uses of | f the substance or mixture and uses advised against |
| Product use | : Professional applications, Used by spraying. |
| Use of the substance/ mixture | : Coating. |
| Uses advised against | : Product is not intended, labelled or packaged for consumer use. |

1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL Tweemontstraat 104 B-2100 Deurne Belgium Telephone +32-33606311 Fax +32-33606435

e-mail address of person : Product. responsible for this SDS

: Product.Stewardship.EMEA@ppg.com

1.4 Emergency telephone number

- Supplier
 - +31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture Classification according to UK CLP/GHS

Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 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

: Warning

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| SIGMAFAS | T 205 BASE RAL 5011 | | |
| | | | |

| Hazard statements | | Elemmetric liquid and veneur |
|---|----|---|
| Hazard statements | ÷ | Flammable liquid and vapour. Causes skin irritation. |
| | | May cause an allergic skin reaction. |
| | | Causes serious eye irritation. |
| | | Harmful to aquatic life with long lasting effects. |
| Precautionary statements | | |
| Prevention | : | Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapour. Wash thoroughly after handling. |
| Response | : | Not applicable. |
| Storage | : | Not applicable. |
| Disposal | : | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| | | P280, P210, P273, P261, P264, P501 |
| Supplemental label elements | : | Contains epoxy constituents. May produce an allergic reaction. |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : | Not applicable. |
| Special packaging requirem | en | <u>ts</u> |
| 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 | : | Prolonged or repeated contact may dry skin and cause irritation. |

SECTION 3: Composition/information on ingredients

| | Mixture | | | |
|---|--|--------------|---|---------|
| 3.2 Mixtures : | | | | |
| Product/ingredient name | Identifiers | % | Classification | Туре |
| xylene | REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9 | ≥10 - ≤16 | Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 | [1] [2] |
| Epoxy Resin (700 <mw<=1100)< td=""><td>CAS: 25036-25-3</td><td>≥5.0 - ≤10</td><td>Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317</td><td>[1]</td></mw<=1100)<> | CAS: 25036-25-3 | ≥5.0 - ≤10 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 | [1] |
| epoxy resin (MW ≤ 700) | REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6 | ≥5.0 - ≤10 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | [1] |
| 2-methylpropan-1-ol | REACH #: | ≥1.0 - <3.0 | Flam. Liq. 3, H226 | [1] [2] |
| English (GB) | United F | Kingdom (UK) | | 2/1 |

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|---|--|-------------|--|---------|
| SECTION 3: Cor | nposition/information on | ingredients | | |
| ethylbenzene | 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1 REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 | ≥1.0 - ≤5.0 | Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336 Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (bearing organs) | [1] [2] |

| | | | See Section 16 for the full text of the H statements declared above. | |
|--|--|-------|---|-----|
| Octadecanamide, N, N'-1,6-hexanediylbis[12-hydroxy- | CAS: 55349-01-4 | ≤0.30 | Skin Sens. 1, H317 Aquatic Chronic 4, H413 | [1] |
| | EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6 | | Aquatic Chronic 1, H410 (M=1) | |
| trizinc bis(orthophosphate) | Index: 601-023-00-4 REACH #: 01-2119485044-40 | ≤1.0 | Asp. Tox. 1, H304 Aquatic Chronic 3, H412 Aquatic Acute 1, H400 (M=1) | [1] |
| | CAS: 100-41-4 | | (nearing organs) | |

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. Xylene: Several REACH registrations cover the REACH registered substance with xylene isomers, ethylbenzene (and toluene). The other REACH Registrations include: 01-2119555267-33 reaction mass of ethylbenzene and m-xylene and p-xylene, 01-2119486136-34 Aromatic hydrocarbons, C8, 01-2119539452-40 reaction mass of ethylbenzene and xylene. 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.

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

| Eye contact | : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. |
|----------------------------|---|
| 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

| 4.2 Most important symptoms | s and effects, both acute and delayed |
|--------------------------------|---|
| Potential acute health effects | |
| Eye contact | : Causes serious eye irritation. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. |

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| SECTION 4: F | irst aid measures | | |
| Ingestion | : No known sig | nificant effects or critical hazards. | |
| <u>Over-exposure sig</u> | <u>gns/symptoms</u> | | |
| Eye contact | : Adverse symp pain or irritatio watering redness | ptoms may include the following: on | |
| Inhalation | : No specific da | ata. | |
| Skin contact | : Adverse symp irritation redness dryness | ptoms may include the following: | |

4.3 Indication of any immediate medical attention and special treatment needed Notes to physician The star mental mating like Contact main and the strength we algo that increased in taby if laws a

cracking

: No specific data.

| Notes to physician | quantities have been ingested or inhaled. |
|---------------------|---|
| Specific treatments | : No specific treatment. |

SECTION 5: Firefighting measures

Ingestion

| 5.1 Extinguishing media Suitable extinguishing media | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
|--|--|
| 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. This material is harmful 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 combustion products | : | Decomposition products may include the following materials: carbon 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. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training. For non-emergency Evacuate surrounding areas. Keep unnecessary and unprotected personnel from personnel 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.

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| SECTION 6: Acciden | tal release measures |
| 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). Water polluting material. May be harmful to the environment if released in large quantities. |
| 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |
| 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. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

| Protective measures | : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. |
|--|---|
| 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

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SECTION 7: Handling and storage

Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|-------------------------|--|
| xylene | EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-,p- or mixed isomers] 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. |
| 2-methylpropan-1-ol | EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 231 mg/m ³ 15 minutes. STEL: 75 ppm 15 minutes. TWA: 154 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. |
| ethylbenzene | EH40/2005 WELs (United Kingdom (UK), 1/2020). 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. |

Recommended monitoring : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ingredient name | Туре | Exposure | Value | Population | Effects |
|-------------------------|------|-----------------------|------------------------|--------------------|----------|
| x ylene | DNEL | Short term Inhalation | 260 mg/m ³ | General population | Systemic |
| | DNEL | Short term Inhalation | 260 mg/m ³ | General population | Local |
| | DNEL | Long term Dermal | 125 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 65.3 mg/m ³ | General population | Systemic |
| | DNEL | Long term Oral | 12.5 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 221 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 442 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 221 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 442 mg/m ³ | Workers | Local |
| | DNEL | Long term Dermal | 212 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 65.3 mg/m ³ | General population | Local |
| | DNEL | Short term Inhalation | 260 mg/m ³ | General population | Local |
| | DNEL | Short term Inhalation | 260 mg/m ³ | General population | Systemic |
| | DNEL | Long term Inhalation | 221 mg/m ³ | Workers | Local |
| | DNEL | Long term Oral | 12.5 mg/kg bw/day | General population | Systemic |
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SECTION 8: Exposure controls/personal protection

| | DNEL | Long term Inhalation | 65.3 mg/m ³ | General population | Systemic |
|-----------------------------|-------|-----------------------|-------------------------|---------------------------|----------|
| | DNEL | Long term Dermal | 125 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 212 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 221 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 442 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 442 mg/m ³ | Workers | Systemic |
| epoxy resin (MW ≤ 700) | DNEL | Long term Inhalation | 12.25 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 12.25 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 8.33 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Dermal | 8.33 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Dermal | 3.571 mg/kg bw/day | General | Systemic |
| | | | | population [Consumers] | -, |
| | DNEL | Short term Dermal | 3.571 mg/kg bw/day | General | Systemic |
| | 5.122 | | | population | eyetenne |
| | | | | [Consumers] | |
| | DNEL | Long term Oral | 0.75 mg/kg bw/day | General | Systemic |
| | 0.122 | Long torm oral | on o mgrig birday | population | eyetenne |
| | | | | [Consumers] | |
| | DNEL | Short term Oral | 0.75 mg/kg bw/day | General | Systemic |
| | 0.122 | | on o mgrig birday | population | eyetenne |
| | | | | [Consumers] | |
| 2-methylpropan-1-ol | DNEL | Long term Inhalation | 55 mg/m³ | General population | Local |
| | DNEL | Long term Inhalation | 310 mg/m ³ | Workers | Local |
| ethylbenzene | DNEL | Long term Oral | 1.6 mg/kg bw/day | General population | Systemic |
| - | DNEL | Long term Inhalation | 15 mg/m ³ | General population | Systemic |
| | DNEL | Long term Inhalation | 77 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 293 mg/m ³ | Workers | Local |
| | DMEL | Long term Inhalation | 442 mg/m ³ | Workers | Local |
| | DMEL | Short term Inhalation | 884 mg/m ³ | Workers | Systemic |
| trizinc bis(orthophosphate) | DNEL | Long term Oral | 0.83 mg/kg bw/day | General population | Systemic |
| (| DNEL | Long term Inhalation | 2.5 mg/m ³ | General population | Systemic |
| | DNEL | Long term Inhalation | 5 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 83 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 83 mg/kg bw/day | Workers | Systemic |
| | | | | | - , |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|------------------------|-----------------|--------------------------|
| xylene | Fresh water | 0.327 mg/l | - |
| - | Marine water | 0.327 mg/l | - |
| | Sewage Treatment Plant | 6.58 mg/l | - |
| | Fresh water sediment | 12.46 mg/kg dwt | - |
| | Marine water sediment | 12.46 mg/kg dwt | - |
| | Soil | 2.31 mg/kg | - |
| epoxy resin (MW ≤ 700) | Fresh water | 0.006 mg/l | Assessment Factors |
| | Marine water | 0.001 mg/l | Assessment Factors |
| | Sewage Treatment Plant | 10 mg/l | Assessment Factors |
| | Fresh water sediment | 0.996 mg/kg dwt | Equilibrium Partitioning |
| | Marine water sediment | 0.1 mg/kg dwt | Equilibrium Partitioning |
| 2-methylpropan-1-ol | Fresh water | 0.4 mg/l | Assessment Factors |
| | Marine water | 0.04 mg/l | Assessment Factors |
| | Sewage Treatment Plant | 10 mg/l | Assessment Factors |
| | Fresh water sediment | 1.56 mg/kg dwt | Equilibrium Partitioning |
| | Marine water sediment | 0.156 mg/kg dwt | - |
| | Soil | 0.076 mg/kg dwt | Equilibrium Partitioning |
| ethylbenzene | Fresh water | 0.1 mg/l | Assessment Factors |
| - | Marine water | 0.01 mg/l | Assessment Factors |
| | Sewage Treatment Plant | 9.6 mg/l | Assessment Factors |
| | Fresh water sediment | 13.7 mg/kg dwt | Equilibrium Partitioning |
| | Marine water sediment | 1.37 mg/kg dwt | Equilibrium Partitioning |
| | Soil | 2.68 mg/kg dwt | Equilibrium Partitioning |
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SECTION 8: Exposure controls/personal protection

| | Secondary Poisoning | 20 mg/kg | - |
|-----------------------------|------------------------|-----------------|--------------------------|
| trizinc bis(orthophosphate) | Fresh water | 20.6 µg/l | Sensitivity Distribution |
| | Marine water | 6.1 µg/l | Sensitivity Distribution |
| | Sewage Treatment Plant | 100 µg/l | Assessment Factors |
| | Fresh water sediment | 117.8 mg/kg dwt | Sensitivity Distribution |
| | Marine water sediment | 56.5 mg/kg dwt | Equilibrium Partitioning |
| | Soil | 35.6 mg/kg dwt | Sensitivity Distribution |

8.2 Exposure controls **Appropriate engineering** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below controls 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. : Chemical splash goggles. Eye/face protection **Skin protection** 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. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. 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. butyl rubber **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 antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. 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. Respirator selection must be based on known or anticipated exposure levels, the **Respiratory protection** hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3 **Environmental exposure** Emissions from ventilation or work process equipment should be checked to ensure controls 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.

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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

| <u>Appearance</u> | |
|--|---|
| Physical state | : Liquid. |
| Colour | : Blue. |
| Odour | : Aromatic. [Slight] |
| Odour threshold | : Not available. |
| Melting point/freezing point | May start to solidify at the following temperature: -45°C (-49°F) This is based on data for the following ingredient: 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich. Weighted average: -89.73°C (-129.5°F) |
| Initial boiling point and boiling range | : >37.78°C (>100°F) |
| Flammability (solid, gas) | : liquid |
| Upper/lower flammability or explosive limits | : Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol) |
| Flash point | : Closed cup: 26°C (78.8°F) |
| Auto-ignition temperature | : |
| | |

| Ingredient name | °C | °F | Method |
|---|-----|-----|------------|
| 1 2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich | 405 | 761 | ASTM E 659 |

| Decomposition temperature | - E |
|---------------------------|---|
| рН | : Not applicable. |
| | Not applicable. insoluble in water. |
| Viscosity | : Kinematic (room temperature): >400 mm ² /s Kinematic (40°C): >21 mm ² /s |

Solubility(ies)

| S | olubility(ies) : | | Method |
|---|-------------------------|-------------|--------|
| | Media | Result | |
| | cold water | Not soluble | |
| N | liscible with water : N | lo. | |

Partition coefficient: n-octanol/ : Not applicable.

water

| | Va | Vapour Pressure at 20°C | | V | apour pressure at 50°C |
|--|---------------------|--|--|-------------------------------|--|
| Ingredient name | mm Hg | kPa | Method | mm Hg | kPa |
| 2-methylpropan-1-ol | <12 | <1.6 | DIN EN 13016-2 | | |
| Relative density | : 1.57 | 7 | ł | | |
| Vapour density | . Lliad | | | | |
| vapour density | | | | | enedicarboxylic acid, di- ed average: 4.9 (Air = 1) |
| | C9- : The | 11-branche product its | ed alkyl esters, C10-r | ich). Weight | ed average: 4.9 (Air = 1) |
| Explosive properties Oxidising properties Particle characteristics | C9- : The vap | 11-branche product its our or dust | ed alkyl esters, C10-r self is not explosive, I | ich). Weight out the forma | |

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|------------------------------|------------------------------------|--------------------------------|------------------|
| SECTIO | ON 10: Stability and re | activity | |

| 10.1 Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
|--|---|
| 10.2 Chemical stability | : The product is stable. |
| 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 product Refer to protective measures listed in sections 7 and 8. |
| 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 | : Depending on conditions, decomposition products may include the following materials: carbon oxides halogenated compounds metal oxide/oxides |

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|------------------------------------|---------|-------------|----------|
| xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| - | LD50 Oral | Rat | 4.3 g/kg | - |
| Epoxy Resin (700 <mw <=1100)</mw | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| epoxy resin (MW ≤ 700) | LD50 Dermal | Rabbit | >2 g/kg | - |
| | LD50 Oral | Rat | >2 g/kg | - |
| 2-methylpropan-1-ol | LC50 Inhalation Vapour | Rat | 24.6 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 2460 mg/kg | - |
| | LD50 Oral | Rat | 2830 mg/kg | - |
| ethylbenzene | LC50 Inhalation Vapour | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| trizinc bis(orthophosphate) | LC50 Inhalation Dusts and mists | Rat | >5.7 mg/l | 4 hours |
| | LD50 Oral | Rat | >5000 mg/kg | - |

: There are no data available on the mixture itself.

Conclusion/Summary 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) |
|-----------------------------|------------------|-------------------|--------------------------------|-----------------------------------|--|
| SIGMAFAST 205 BASE RAL 5011 | N/A | 12823.5 | N/A | 74.8 | N/A |
| xylene | 4300 | 1700 | N/A | 11 | N/A |
| 2-methylpropan-1-ol | 2830 | 2460 | N/A | 24.6 | N/A |
| ethylbenzene | 3500 | 17800 | N/A | 17.8 | N/A |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation | | |
|---|--------------------------|---------|-------|--------------|-------------|--|--|
| xylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 | - | | |
| | | | | mg | | | |
| epoxy resin (MW ≤ 700) | Eyes - Mild irritant | Rabbit | - | - | - | | |
| | Skin - Mild irritant | Rabbit | - | - | - | | |
| Conclusion/Summary | : Not available. | | | | | | |
| Skin : There are no data available on the mixture itself. | | | | | | | |

: There are no data available on the mixture itself.

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SECTION 11: Toxicological information

| Eyes | : There are no dat | ta available on the mixture itself | | | |
|---------------------------|--|-------------------------------------|-------------|--|--|
| Respiratory | : There are no data available on the mixture itself. | | | | |
| Sensitisation | | | | | |
| Product/ingredient name | Route of exposure | Species | Result | | |
| epoxy resin (MW ≤ 700) | skin | Mouse | Sensitising | | |
| Conclusion/Summary | | | | | |
| Skin | : There are no dat | a vailable on the mixture itself | | | |
| Respiratory | : There are no dat | ta available on the mixture itself | | | |
| Mutagenicity | | | | | |
| Conclusion/Summary | : There are no dat | ta available on the mixture itself. | | | |
| Carcinogenicity | | | | | |
| Conclusion/Summary | : There are no dat | ta available on the mixture itself. | | | |
| Reproductive toxicity | | | | | |
| Conclusion/Summary | : There are no data available on the mixture itself. | | | | |
| Teratogenicity | | | | | |
| Conclusion/Summary | : | | | | |
| | | | | | |

There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|---------------------------------|
| xylene | Category 3 | - | Respiratory tract irritation |
| 2-methylpropan-1-ol | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|----------------|
| ethylbenzene | Category 2 | - | hearing organs |

Aspiration hazard

| Product/ingredient name | Result | |
|-------------------------|--------------------------------|--|
| xylene | ASPIRATION HAZARD - Category 1 | |
| ethylbenzene | ASPIRATION HAZARD - Category 1 | |

| of exposure | 1 | Not available. |
|---|---|--|
| Potential acute health effects | | |
| Eye contact | : | Causes serious eye irritation. |
| Inhalation | : | No known significant effects or critical hazards. |
| Skin contact | : | Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. |
| Ingestion | 1 | No known significant effects or critical hazards. |
| | | |
| | | al, chemical and toxicological characteristics |
| <u>Symptoms related to the phy</u> Eye contact | | al, chemical and toxicological characteristics Adverse symptoms may include the following: pain or irritation watering redness |

| English (GB) | United Kingdom (UK) | 11/16 |
|--------------|---------------------|-------|
| | | |

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| SECTION 11: Toxico | logical information |
| Skin contact | : Adverse symptoms may include the following: irritation redness dryness cracking |
| Ingestion | : No specific data. |
| Delayed and immediate effect | cts 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. |
| Potential delayed effects | : Not available. |
| Potential chronic health eff | <u>ects</u> |
| Not available. | |
| Conclusion/Summary | : Not available. |
| General | : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
| 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. |
| | |

Other information

: Not available.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-----------------------------|---------------------------------|------------------------------|----------|
| epoxy resin (MW ≤ 700) | Acute LC50 1.8 mg/l | Daphnia | 48 hours |
| | Chronic NOEC 0.3 mg/l | Daphnia | 21 days |
| 2-methylpropan-1-ol | Acute EC50 1100 mg/l | Daphnia | 48 hours |
| ethylbenzene | Acute EC50 1.8 mg/l Fresh water | Daphnia | 48 hours |
| - | Chronic NOEC 1 mg/l Fresh water | Daphnia - Ceriodaphnia dubia | - |
| trizinc bis(orthophosphate) | Acute LC50 0.112 mg/l | Fish | 96 hours |
| | Chronic NOEC 0.026 mg/l | Fish | 30 days |

Conclusion/Summary

: Not available.

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | | Dose | Inoculum |
|---|-------------------|--------------------------------------|------------|------|-----------------------------------|
| epoxy resin (MW ≤ 700) ethylbenzene | OECD 301F - | 5 % - 28 days 79 % - Readily - 10 | days | - | - |
| Conclusion/Summary | : Not available. | | | | |
| Product/ingredient name | Aquatic half-life | | Photolysis | S | Biodegradability |
| xylene epoxy resin (MW ≤ 700) ethylbenzene | - - - | | - - | | Readily Not readily Readily |

12.3 Bioaccumulative potential

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SECTION 12: Ecological information

| Product/ingredient name | LogPow | BCF | Potential |
|-------------------------|--------|-------------|-----------|
| xylene | 3.12 | 7.4 to 18.5 | low |
| epoxy resin (MW ≤ 700) | 3 | 31 | low |
| 2-methylpropan-1-ol | 1 | - | low |
| ethylbenzene | 3.6 | 79.43 | low |

| 12.4 Mobility in soil | |
|-----------------------|------------------|
| Soil/water partition | : Not available. |
| coefficient (Koc) | |
| Mobility | : Not available. |

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. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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. |

Waste catalogue

| 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.

| Type of packaging | | Waste catalogue |
|---------------------|---|---|
| Container | 15 01 06 | mixed packaging |
| Special precautions | taken when Empty conta residues ma container. I thoroughly ii | al and its container must be disposed of in a safe way. Care should be handling emptied containers that have not been cleaned or rinsed out. ainers or liners may retain some product residues. Vapour from product by create a highly flammable or explosive atmosphere inside the Do not cut, weld or grind used containers unless they have been cleaned internally. Avoid dispersal of spilt material and runoff and contact with ays, drains and sewers. |

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SECTION 14: Transport information

| | | ADR/RID | ADN | IMDG | ΙΑΤΑ |
|----------------------------------|-------|--|---|--------------------------|-------------------|
| 14.1 UN numbe | er | UN1263 | UN1263 | UN1263 | UN1263 |
| 14.2 UN proper shipping name | | PAINT | PAINT | PAINT | PAINT |
| 14.3 Transport hazard class(e | | 3 | 3 | 3 | 3 |
| 14.4 Packing group | | 111 | III | Ш | 111 |
| 14.5 Environmental hazards | | No. | Yes. | No. | No. |
| Marine polluta substances | nt | Not applicable. | Not applicable. | Not applicable. | Not applicable. |
| Additional info | rmati | <u>on</u> | • | | |
| ADR/RID | | his class 3 viscous liqui .2.3.1.5.1. | d is not subject to regulati | on in packagings up to 4 | 50 L according to |
| Tunnel code | ``` | D/E) | | | |
| ADN | v | The product is only regulated as an environmentally hazardous substance when transported in tank vessels. This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.2.3.1.5.1. | | | |
| IMDG | : T | This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5. | | | |
| IATA | : N | lone identified. | | | |
| 14.6 Special pro user | ecaut | upright and | within user's premises: secure. Ensure that pers f an accident or spillage. | | |

14.7 Transport in bulk according to IMO instruments

SECTION 15: Regulatory information

| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixtur |
|--|
| UK (GB)/REACH |
| |

Annex XIV - List of substances subject to authorisation

: Not available.

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

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

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

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SECTION 15: Regulatory information

Category

P5c

SECTION 16: Other information

| Indicates information that has | s changed from previously issued version. |
|---------------------------------|--|
| Abbreviations and : acronyms | ATE = Acute Toxicity Estimate GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = GB 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

| Classification | Justification |
|-------------------------|-----------------------|
| Flam. Liq. 3, H226 | On basis of test data |
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

Full text of abbreviated H statements

| i | |
|------|--|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| H413 | May cause long lasting harmful effects to aquatic life. |

Full text of classifications

| English (G | iB) United Kingdom (UK) | 15/16 |
|-------------------|---|-------|
| STOT RE 2 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 | |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 | |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 | |
| Flam. Liq. 3 | FLAMMABLE LIQUIDS - Category 3 | |
| Flam. Liq. 2 | FLAMMABLE LIQUIDS - Category 2 | |
| Eye Irrit. 2 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 | |
| Eye Dam. 1 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 | |
| Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 | |
| Aquatic Chronic 4 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4 | |
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 | |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 | |
| Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 | |
| Aquatic Acute 1 | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 | |
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 | |

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|-------------------------------------|---|
| SECTION 16: Ot | ther information |
| STOT SE 3 | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |
| History | |
| Date of issue/ Date of revision | : 1/4/2023 |
| Date of previous issue | e : 8/18/2022 |
| Prepared by | : EHS |

Version

: 1.01

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