

# SAFETY DATA SHEET



Date of issue/Date of revision : 21 November 2016 Version : 13.01

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

### 1.1 Product identifier

**Product name** : SIGMADUR 550 BASE  
**Product code** : 00315168  
**Other means of identification** : Not available.

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

**Product use** : Professional applications, Used by spraying.  
**Use of the substance/mixture** : Coating.

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

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

**e-mail address of person responsible for this SDS** : PMC.Safety@PPG.com

### 1.4 Emergency telephone number

#### Supplier

**Telephone number** :  
+31 20 4075210

## 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

Skin Irrit. 2, H315

Eye Irrit. 2, H319

STOT SE 3, H335

STOT RE 2, H373

Aquatic Chronic 3, H412

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

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## SECTION 2: Hazards identification

Hazard pictograms :



Signal word :

Warning

Hazard statements :

Flammable liquid and vapour.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure.  
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. Do not breathe vapour.

Response :

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage :

Store in a well-ventilated place. Keep cool.

Disposal :

Not applicable.

Hazardous ingredients :

xylene

Supplemental label elements :

Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate. 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 requirements

Containers to be fitted with child-resistant fastenings :

Not applicable.

Tactile warning of danger :

Not applicable.

### 2.3 Other hazards

Other hazards which do not result in classification :

Prolonged or repeated contact may dry skin and cause irritation.

## SECTION 3: Composition/information on ingredients

3.2 Mixtures :

Mixture

| Product/ingredient name | Identifiers | % by weight | Classification<br>Regulation (EC) No.<br>1272/2008 [CLP] | Type |
|-------------------------|-------------|-------------|--|------|
|                         |             |             |  |      |

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### SECTION 3: Composition/information on ingredients

|   |   |             |  |         |
|---|---|-------------|--|---------|
| xylene  | REACH #: 01-2119488216-32<br>EC: 215-535-7<br>CAS: 1330-20-7<br>Index: 601-022-00-9 | ≥25 - ≤46   | Flam. Liq. 3, H226<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335<br>STOT RE 2, H373<br>(central nervous system (CNS), kidneys, liver)<br>Asp. Tox. 1, H304 | [1] [2] |
| n-butyl acetate                                 | REACH #: 01-2119485493-29<br>EC: 204-658-1<br>CAS: 123-86-4<br>Index: 607-025-00-1  | ≥5.0 - ≤10  | Flam. Liq. 3, H226<br>STOT SE 3, H336<br>EUH066  | [1] [2] |
| ethylbenzene                                    | REACH #: 01-2119489370-35<br>EC: 202-849-4<br>CAS: 100-41-4<br>Index: 601-023-00-4  | ≥1.0 - ≤5.0 | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>STOT RE 2, H373<br>(hearing organs)<br>Asp. Tox. 1, H304   | [1] [2] |
| 2-methoxy-1-methylethyl acetate                 | REACH #: 01-2119475791-29<br>EC: 203-603-9<br>CAS: 108-65-6<br>Index: 607-195-00-7  | ≥1.0 - ≤5.0 | Flam. Liq. 3, H226   | [2]     |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | EC: 255-437-1<br>CAS: 41556-26-7  | ≤0.30       | Skin Sens. 1, H317<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1)   | [1]     |
| toluene   | REACH #: 01-2119471310-51<br>EC: 203-625-9<br>CAS: 108-88-3<br>Index: 601-021-00-3  | ≤0.30       | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Repr. 2, H361d (Unborn child)<br>STOT SE 3, H336<br>STOT RE 2, H373<br>Asp. Tox. 1, H304<br><b>See Section 16 for the full text of the H statements declared above.</b>     | [1] [2] |

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 or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

#### Type

[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.

**SUB codes represent substances without registered CAS Numbers.**

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## 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. 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

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Ingestion** : No specific data.

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

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

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

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

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## SECTION 5: Firefighting measures

**Hazards from the substance or mixture** : Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. 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 dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
metal oxide/oxides

### 5.3 Advice for firefighters

**Special precautions 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.

## 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".

### 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the

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## SECTION 6: Accidental release measures

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. 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). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. 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

- : Storage temperature: 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. Store locked up. Eliminate all ignition sources. Separate from oxidizing 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.

### 7.3 Specific end use(s)

#### Recommendations

- : Not available.

#### Industrial sector specific solutions

- : Not available.

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## SECTION 8: Exposure controls/personal protection

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).

### 8.1 Control parameters

#### Occupational exposure limits

| Product/ingredient name         | Exposure limit values  |
|---------------------------------|--|
| xylene                          | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b><br>STEL: 441 mg/m <sup>3</sup> 15 minutes.<br>STEL: 100 ppm 15 minutes.<br>TWA: 220 mg/m <sup>3</sup> 8 hours.<br>TWA: 50 ppm 8 hours.  |
| n-butyl acetate                 | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b><br>STEL: 966 mg/m <sup>3</sup> 15 minutes.<br>STEL: 200 ppm 15 minutes.<br>TWA: 724 mg/m <sup>3</sup> 8 hours.<br>TWA: 150 ppm 8 hours.                        |
| ethylbenzene                    | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b><br>STEL: 552 mg/m <sup>3</sup> 15 minutes.<br>STEL: 125 ppm 15 minutes.<br>TWA: 441 mg/m <sup>3</sup> 8 hours.<br>TWA: 100 ppm 8 hours. |
| 2-methoxy-1-methylethyl acetate | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b><br>STEL: 548 mg/m <sup>3</sup> 15 minutes.<br>STEL: 100 ppm 15 minutes.<br>TWA: 274 mg/m <sup>3</sup> 8 hours.<br>TWA: 50 ppm 8 hours.  |
| toluene                         | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b><br>STEL: 384 mg/m <sup>3</sup> 15 minutes.<br>STEL: 100 ppm 15 minutes.<br>TWA: 191 mg/m <sup>3</sup> 8 hours.<br>TWA: 50 ppm 8 hours.  |

**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



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## SECTION 8: Exposure controls/personal protection

| Product/ingredient name         | Type | Exposure              | Value                    | Population | Effects  |
|---------------------------------|------|-----------------------|--------------------------|------------|----------|
| xylene                          | DNEL | Short term Inhalation | 289 mg/m <sup>3</sup>    | Workers    | Systemic |
|                                 | DNEL | Short term Inhalation | 289 mg/m <sup>3</sup>    | Workers    | Local    |
|                                 | DNEL | Long term Dermal      | 180 mg/kg bw/day         | Workers    | Systemic |
|                                 | DNEL | Long term Inhalation  | 77 mg/m <sup>3</sup>     | Workers    | Systemic |
|                                 | DNEL | Short term Inhalation | 174 mg/m <sup>3</sup>    | Consumers  | Systemic |
|                                 | DNEL | Short term Inhalation | 174 mg/m <sup>3</sup>    | Consumers  | Local    |
|                                 | DNEL | Long term Dermal      | 108 mg/kg bw/day         | Consumers  | Systemic |
|                                 | DNEL | Long term Inhalation  | 14.8 mg/m <sup>3</sup>   | Consumers  | Systemic |
|                                 | DNEL | Long term Oral        | 1.6 mg/kg bw/day         | Consumers  | Systemic |
| n-butyl acetate                 | DNEL | Long term Inhalation  | 480 mg/m <sup>3</sup>    | Workers    | Systemic |
|                                 | DNEL | Short term Inhalation | 960 mg/m <sup>3</sup>    | Workers    | Systemic |
|                                 | DNEL | Long term Inhalation  | 480 mg/m <sup>3</sup>    | Workers    | Local    |
|                                 | DNEL | Short term Inhalation | 960 mg/m <sup>3</sup>    | Workers    | Local    |
|                                 | DNEL | Long term Inhalation  | 102.34 mg/m <sup>3</sup> | Consumers  | Systemic |
|                                 | DNEL | Short term Inhalation | 859.7 mg/m <sup>3</sup>  | Consumers  | Systemic |
|                                 | DNEL | Long term Inhalation  | 102.34 mg/m <sup>3</sup> | Consumers  | Local    |
|                                 | DNEL | Short term Inhalation | 859.7 mg/m <sup>3</sup>  | Consumers  | Local    |
|                                 | DNEL | Long term Inhalation  | 275 mg/m <sup>3</sup>    | Workers    | Systemic |
| 2-methoxy-1-methylethyl acetate | DNEL | Long term Dermal      | 153.5 mg/kg              | Workers    | Systemic |
|                                 | DNEL | Long term Oral        | 1.67 mg/kg               | Consumers  | Systemic |
|                                 | DNEL | Long term Inhalation  | 33 mg/m <sup>3</sup>     | Consumers  | Systemic |
|                                 | DNEL | Long term Dermal      | 54.8 mg/kg               | Consumers  | Systemic |

### PNECs

| Product/ingredient name | Type | 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      | -             |
| n-butyl acetate         | -    | Fresh water            | 0.18 mg/l       | -             |
|                         | -    | Marine water           | 0.018 mg/l      | -             |
|                         | -    | Fresh water sediment   | 0.981 mg/kg     | -             |



|                          |  |
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## SECTION 8: Exposure controls/personal protection

|                                 |   |                        |              |   |
|---------------------------------|---|------------------------|--------------|---|
| 2-methoxy-1-methylethyl acetate | - | Marine water sediment  | 0.0981 mg/kg | - |
|                                 | - | Sewage Treatment Plant | 35.6 mg/l    | - |
|                                 | - | Soil                   | 0.0903 mg/kg | - |
|                                 | - | Fresh water            | 0.635 mg/l   | - |
|                                 | - | Marine water           | 0.0635 mg/l  | - |
|                                 | - | Fresh water sediment   | 3.29 mg/kg   | - |
|                                 | - | Marine water sediment  | 0.329 mg/kg  | - |
|                                 | - | Soil                   | 0.29 mg/kg   | - |
|                                 | - | Sewage Treatment Plant | 100 mg/l     | - |

### 8.2 Exposure controls

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

#### Individual protection measures

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

**Eye/face protection** : Chemical splash goggles.

#### 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.

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

May be used: Chloroprene, nitrile rubber, polyvinyl alcohol (PVA), Viton®, 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 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.

**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.

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- Respiratory protection** : 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. 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. Filter type: organic vapour (Type A) and particulate filter P3
- 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** : Orange.
- Odour** : Not available.
- Odour threshold** : Not available.
- pH** : insoluble in water.
- Melting point/freezing point** : May start to solidify at the following temperature: -66°C (-86.8°F) This is based on data for the following ingredient: 2-methoxy-1-methylethyl acetate. Weighted average: -92.82°C (-135.1°F)
- Initial boiling point and boiling range** : >37.78°C
- Flash point** : Closed cup: 25°C
- Evaporation rate** : Highest known value: 1 (n-butyl acetate) Weighted average: 0.81 compared with butyl acetate
- Material supports combustion.** : Yes.
- Flammability (solid, gas)** : liquid
- Upper/lower flammability or explosive limits** : Lower: 0.87%  
Upper: 5.8%
- Vapour pressure** : Highest known value: 1.5 kPa (11.3 mm Hg) (at 20°C) (n-butyl acetate).  
Weighted average: 0.97 kPa (7.28 mm Hg) (at 20°C)
- Vapour density** : Highest known value: 4.6 (Air = 1) (2-methoxy-1-methylethyl acetate). Weighted average: 3.82 (Air = 1)
- Relative density** : 1.32
- Solubility(ies)** : Insoluble in the following materials: cold water.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Auto-ignition temperature** : Lowest known value: 333°C (631.4°F) (2-methoxy-1-methylethyl acetate).
- Decomposition temperature** : Stable under recommended storage and handling conditions (see Section 7).
- Viscosity** : Kinematic (room temperature): >4 cm<sup>2</sup>/s  
Kinematic (40°C): >0.21 cm<sup>2</sup>/s
- Explosive properties** : Product does not present an explosion hazard.
- Oxidising properties** : Product does not present an oxidizing hazard.

### 9.2 Other information

No additional information.

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## 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** : 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 products.  
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** :  Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

| Product/ingredient name                         | Result                 | Species | Dose                | Exposure |
|---|------------------------|---------|---------------------|----------|
| xylene  | LC50 Inhalation Gas.   | Rat     | 6670 ppm            | 4 hours  |
|   | LC50 Inhalation Vapour | Rat     | 5000 ppm            | 4 hours  |
|   | LD50 Dermal            | Rabbit  | >1.7 g/kg           | -        |
|   | LD50 Oral              | Rat     | 4.3 g/kg            | -        |
| n-butyl acetate                                 | LC50 Inhalation Vapour | Rat     | >21.1 mg/l          | 4 hours  |
|   | LC50 Inhalation Vapour | Rat     | 2000 ppm            | 4 hours  |
|   | LD50 Dermal            | Rabbit  | >17600 mg/kg        | -        |
|   | LD50 Oral              | Rat     | 10.768 g/kg         | -        |
| ethylbenzene                                    | LC50 Inhalation Vapour | Rat     | 4000 ppm            | 4 hours  |
|   | LD50 Dermal            | Rabbit  | 17.8 g/kg           | -        |
|   | LD50 Oral              | Rat     | 3.5 g/kg            | -        |
| 2-methoxy-1-methylethyl acetate                 | LD50 Dermal            | Rabbit  | >5 g/kg             | -        |
|   | LD50 Oral              | Rat     | 8532 mg/kg          | -        |
| titanium dioxide                                | LD50 Oral              | Rat     | >11 g/kg            | -        |
|   | LD50 Oral              | Rat     | 3.125 g/kg          | -        |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | LC50 Inhalation Vapour | Rat     | 49 g/m <sup>3</sup> | 4 hours  |
|   | LC50 Inhalation Vapour | Rat     | 8000 ppm            | 4 hours  |
|   | LD50 Dermal            | Rabbit  | 8.39 g/kg           | -        |
|   | LD50 Oral              | Rat     | 636 mg/kg           | -        |
| toluene   |                        |         |                     |          |

**Conclusion/Summary** : Not available.

#### Acute toxicity estimates

| Route                | ATE value    |
|----------------------|--------------|
| Dermal               | 4032.7 mg/kg |
| Inhalation (vapours) | 34.24 mg/l   |

#### Irritation/Corrosion

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| Product/ingredient name | Result                   | Species | Score | Exposure        | Observation |
|-------------------------|--------------------------|---------|-------|-----------------|-------------|
| xylene                  | Skin - Moderate irritant | Rabbit  | -     | 24 hours 500 mg | -           |

**Conclusion/Summary** : Not available.

### Sensitisation

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

| Product/ingredient name | Category   | Route of exposure | Target organs                |
|-------------------------|------------|-------------------|------------------------------|
| xylene                  | Category 3 | Not applicable.   | Respiratory tract irritation |
| n-butyl acetate         | Category 3 | Not applicable.   | Narcotic effects             |
| toluene                 | Category 3 | Not applicable.   | Narcotic effects             |

### Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category   | Route of exposure | Target organs                                   |
|-------------------------|------------|-------------------|---|
| xylene                  | Category 2 | Not determined    | central nervous system (CNS), kidneys and liver |
| ethylbenzene            | Category 2 | Not determined    | hearing organs                                  |
| toluene                 | Category 2 | Not determined    | Not determined                                  |

### Aspiration hazard

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

**Information on likely routes of exposure** : Not available.

### Potential acute health effects

**Inhalation** : May cause respiratory irritation.

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

**Skin contact** : Causes skin irritation. Defatting to the skin.

**Eye contact** : Causes serious eye irritation.

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

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Ingestion** : No specific data.

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**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

### 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.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

**Conclusion/Summary** : Not available.

**General** : May cause damage to organs through prolonged or repeated exposure. 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.

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.

Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate. May produce an allergic reaction.

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## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name         | Result                                 | Species  | Exposure |
|---------------------------------|--|--|----------|
| ethylbenzene                    | Acute LC50 150 to 200 mg/l Fresh water | Fish - Lepomis macrochirus - Young of the year | 96 hours |
| 2-methoxy-1-methylethyl acetate | Acute LC50 161 mg/l Fresh water        | Fish   | 96 hours |
| titanium dioxide                | Acute LC50 >100 mg/l Fresh water       | Daphnia - Daphnia magna                        | 48 hours |

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| xylene                  | -                 | -          | Readily          |
| ethylbenzene            | -                 | -          | Readily          |
| toluene                 | -                 | -          | Readily          |

### 12.3 Bioaccumulative potential

| Product/ingredient name         | LogP <sub>ow</sub> | BCF         | Potential |
|---------------------------------|--------------------|-------------|-----------|
| xylene                          | 3.16               | 7.4 to 18.5 | low       |
| n-butyl acetate                 | 1.78               | -           | low       |
| ethylbenzene                    | 3.15               | 79.43       | low       |
| 2-methoxy-1-methylethyl acetate | 0.56               | -           | low       |
| toluene                         | 2.73               | 8.32        | low       |

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

**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.

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## SECTION 13: Disposal considerations

**Hazardous waste** : Yes.

### European waste catalogue (EWC)

| 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 | European waste catalogue (EWC) |
|-------------------|--------------------------------|
| Container         | 15 01 06 mixed packaging       |

**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.

## 14. Transport information

|  | ADR/RID         | ADN             | IMDG            | IATA            |
|--|-----------------|-----------------|-----------------|-----------------|
| <b>14.1 UN number</b>                  | UN1263          | UN1263          | UN1263          | UN1263          |
| <b>14.2 UN proper shipping name</b>    | PAINT           | PAINT           | PAINT           | PAINT           |
| <b>14.3 Transport hazard class(es)</b> | 3               | 3               | 3               | 3               |
| <b>14.4 Packing group</b>              | III             | III             | III             | III             |
| <b>14.5 Environmental hazards</b>      | No.             | Yes.            | No.             | No.             |
| <b>Marine pollutant substances</b>     | Not applicable. | Not applicable. | Not applicable. | Not applicable. |

### Additional information

**ADR/RID** : This class 3 material is not subject to regulation in packagings up to 450 L. Exempted according to 2.2.3.1.5 (Viscous substance exemption)

**Tunnel code** : (D/E)

**ADN** : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

**IMDG** :  None identified.

**IATA** : None identified.

**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.



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## 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

| Product/ingredient name | Carcinogenic effects | Mutagenic effects | Developmental effects         | Fertility effects |
|-------------------------|----------------------|-------------------|-------------------------------|-------------------|
| toluene                 | -                    | -                 | Repr. 2, H361d (Unborn child) | -                 |

##### Seveso Directive

This product is controlled under the Seveso Directive.

##### Danger criteria

###### Category

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b  
6: Flammable (R10)

**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]  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number

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

| Classification          | Justification         |
|-------------------------|-----------------------|
| Flam. Liq. 3, H226      | On basis of test data |
| Skin Irrit. 2, H315     | Calculation method    |
| Eye Irrit. 2, H319      | Calculation method    |
| STOT SE 3, H335         | Calculation method    |
| STOT RE 2, H373         | Calculation method    |
| Aquatic Chronic 3, H412 | Calculation method    |

### Full text of abbreviated H statements

|                          |  |
|--------------------------|--|
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**SECTION 16: Other information**

|       |  |
|-------|--|
| 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.                               |
| H319  | Causes serious eye irritation.                                     |
| H332  | Harmful if inhaled.  |
| H335  | May cause respiratory irritation.                                  |
| H336  | May cause drowsiness or dizziness.                                 |
| H361d | Suspected of damaging the unborn child.                            |
| 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.              |
| H412  | Harmful to aquatic life with long lasting effects.                 |

**Full text of classifications [CLP/GHS]**

|                         |  |
|-------------------------|--|
| Acute Tox. 4, H312      | ACUTE TOXICITY (dermal) - Category 4   |
| Acute Tox. 4, H332      | ACUTE TOXICITY (inhalation) - Category 4   |
| Aquatic Acute 1, H400   | ACUTE AQUATIC HAZARD - Category 1  |
| Aquatic Chronic 1, H410 | LONG-TERM AQUATIC HAZARD - Category 1  |
| Aquatic Chronic 3, H412 | LONG-TERM AQUATIC HAZARD - Category 3  |
| Asp. Tox. 1, H304       | ASPIRATION HAZARD - Category 1   |
| EUH066                  | Repeated exposure may cause skin dryness or cracking.  |
| Eye Irrit. 2, H319      | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2   |
| Flam. Liq. 2, H225      | FLAMMABLE LIQUIDS - Category 2   |
| Flam. Liq. 3, H226      | FLAMMABLE LIQUIDS - Category 3   |
| Repr. 2, H361d          | REPRODUCTIVE TOXICITY (Unborn child) - Category 2  |
| Skin Irrit. 2, H315     | SKIN CORROSION/IRRITATION - Category 2   |
| Skin Sens. 1, H317      | SKIN SENSITISATION - Category 1  |
| STOT RE 2, H373         | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2                              |
| STOT SE 3, H335         | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 |
| STOT SE 3, H336         | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3             |

**History**

|  |                    |
|--|--------------------|
| <b>Date of issue/ Date of revision</b> | : 21 November 2016 |
| <b>Date of previous issue</b>          | : 4 September 2016 |
| <b>Prepared by</b>                     | : EHS              |
| <b>Version</b>                         | : 13.01            |

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