# SAFETY DATA SHEET

**SIGMADUR ONE BLACK**

**Date of issue** 23 November 2022
**Version** 25

## 1. Product and company identification

**Product name** : SIGMADUR ONE BLACK
**Product code** : 00322191
**Product type** : Liquid.

**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.
**Uses advised against** : Not applicable.

**Supplier's details** : PPG PMC Japan Co., Ltd., 8F, Shintetsu Bldg., 1-1, Daikaidori 1-chome, Kobe 652-0803 Japan; Tel: +81-78-574-2777

**Emergency telephone number** : 078 574 2777

## 2. Hazards identification

**GHS Classification** : FLAMMABLE LIQUIDS - Category 3
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 3
HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 3

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : Flammable liquid and vapor.
Causes serious eye irritation.
May cause respiratory irritation.
May cause cancer.
May cause damage to organs. (respiratory organs)
May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS), respiratory organs)
Harmful to aquatic life with long lasting effects.

**Precautionary statements**

# 2. Hazards identification

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

**Response** : IF exposed or concerned: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

**Storage** : Store locked up. Store in a well-ventilated place. Keep container tightly closed.

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

**Other hazards which do not result in classification** : Prolonged or repeated contact may dry skin and cause irritation.

# 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**CAS number/other identifiers**

**CAS number** : Not applicable.
**CSCL number** : Not available.

| Ingredient name | % | CAS number | CSCL |
|---|---|---|---|
| Naphtha (petroleum), hydrotreated heavy | 20 - <25 | 64742-48-9 | Not available. |
| barium sulfate | 7 - <10 | 7727-43-7 | 1-89 |
| Naphtha (petroleum), hydrodesulfurized heavy | 7 - <10 | 64742-82-1 | Not available. |
| Talc containing no asbestos or quartz | 2 - <3 | 14807-96-6 | Not available. |
| carbon black | 1 - <2 | 1333-86-4 | 5-3328; 5-5222 |
| Propylene glycol monomethyl ether | 1 - <2 | 107-98-2 | 2-404; 7-97 |
| n-Nonane | 1 - <2 | 111-84-2 | 2-9 |
| 2-ethylhexanoic acid, zirconium salt | 1 - <2 | 22464-99-9 | 2-615 |
| Ethanol | 0.2 - <0.5 | 64-17-5 | 2-202 |
| calcium bis(2-ethylhexanoate) | 0.2 - <0.5 | 136-51-6 | 2-611 |
| A mixture of: butan-2-one oxime | 0.1 - <0.2 | 96-29-7 | 2-546 |
| Xylene | 0.1 - <0.2 | 1330-20-7 | 3-3; 3-60 |
| neodecanoic acid, cobalt salt | 0.1 - <0.2 | 27253-31-2 | 2-615 |
| n-Octane | 0.1 - <0.2 | 111-65-9 | 2-8 |
| crystalline silica (quartz) | 0.1 - <0.2 | 14808-60-7 | 1-548 |

**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 and hence require reporting in this section.**

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

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

# 4. First aid measures

## Description of necessary 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 recognized skin cleanser. Do NOT use solvents or thinners.

**Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

## Most important symptoms/effects, acute and delayed

### Potential acute health effects

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

**Inhalation** : May cause respiratory irritation.

**Skin contact** : May cause damage to organs following a single exposure in contact with skin. Defatting to the skin. May cause skin dryness and irritation.

**Ingestion** : May cause damage to organs following a single exposure if swallowed.

### 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
dryness
cracking

**Ingestion** : No specific data.

## Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

**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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**See toxicological information (Section 11)**

# 5. Fire-fighting measures

## Extinguishing media

**Suitable extinguishing media** : Use dry chemical, $CO_2$, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

# 5. Fire-fighting measures

**Specific hazards arising from the chemical** : Flammable liquid and vapor. 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 thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
sulfur oxides
metal oxide/oxides

**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.

# 6. Accidental release measures

## 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized 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".

**Environmental precautions** : Avoid dispersal of spilled 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.

## Methods and materials 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 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 spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# 7. Handling and storage

**Precautions for safe handling** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.

Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.

**Conditions for safe 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. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

# 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits

| Ingredient name | Exposure limits |
|---|---|
| Talc containing no asbestos or quartz | **Japan Society for Occupational Health (Japan, 9/2021). [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder, Talc)]**<br>OEL-M: 0.5 mg/m³ 8 hours. Form: Respirable dust (Class 1 Dust)<br>OEL-M: 2 mg/m³ 8 hours. Form: Total dust (Class 1 Dust) |
| n-Nonane | **Japan Society for Occupational Health (Japan, 9/2021).**<br>OEL-M: 1050 mg/m³ 8 hours.<br>OEL-M: 200 ppm 8 hours. |
| Xylene | **Industrial Safety and Health Act (Japan, 6/2020). [xylene]**<br>TWA: 50 ppm 8 hours.<br>**Japan Society for Occupational Health (Japan, 9/2021).**<br>OEL-M: 50 ppm 8 hours.<br>OEL-M: 217 mg/m³ 8 hours. |
| neodecanoic acid, cobalt salt | **Japan Society for Occupational Health (Japan, 9/2021). [Cobalt and compounds]** |

# 8. Exposure controls/personal protection

| | |
|---|---|
| n-Octane | **Skin sensitizer. Inhalation sensitizer.**<br>OEL-M: 0.05 mg/m³, (as Co) 8 hours.<br>**Japan Society for Occupational Health (Japan, 9/2021).**<br>OEL-M: 300 ppm 8 hours.<br>OEL-M: 1400 mg/m³ 8 hours. |
| crystalline silica (quartz) | **Japan Society for Occupational Health (Japan, 9/2021). [Respirable crystalline silica]**<br>OEL-C: 0.03 mg/m³ Form: Respirable dust |

**Recommended monitoring procedures** : 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.

**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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**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.

## 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 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.

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

Recommended: neoprene, natural rubber (latex), nitrile rubber, 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.

**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.

## 8. Exposure controls/personal protection

**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.

## 9. Physical and chemical properties

**Appearance**

**Physical state** : Liquid.

**Color** : Black.

**Odor** : Aromatic. [Slight]

**Boiling point** : >37.78°C (>100°F)

**Flash point** : Closed cup: 33°C (91.4°F)

**Relative density** : 1.05

**Solubility(ies)** :

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

## 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.

**Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

**Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides sulfur oxides metal oxide/oxides

## 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Naphtha (petroleum), hydrotreated heavy | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | >6 g/kg | - |
| barium sulfate | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| Naphtha (petroleum), hydrodesulfurized heavy | LD50 Oral | Rat | >5000 mg/kg | - |
| carbon black | LD50 Oral | Rat | >10 g/kg | - |

# 11. Toxicological information

| | | | | |
|---|---|---|---|---|
| Propylene glycol monomethyl ether | LC50 Inhalation Vapor | Rat | >7000 ppm | 6 hours |
| | LD50 Dermal | Rabbit | 13 g/kg | - |
| | LD50 Oral | Rat | 5.2 g/kg | - |
| n-Nonane | LC50 Inhalation Gas. | Rat | 3200 ppm | 4 hours |
| | LC50 Inhalation Vapor | Rat | 16790 mg/m³ | 4 hours |
| 2-ethylhexanoic acid, zirconium salt | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| Ethanol | LC50 Inhalation Vapor | Rat | 124700 mg/m³ | 4 hours |
| | LD50 Dermal | Rat | 17100 mg/kg | - |
| | LD50 Oral | Rat | 7 g/kg | - |
| A mixture of: butan-2-one oxime | LD50 Dermal | Rabbit | 1100 mg/kg | - |
| | LD50 Oral | Rat | 100 mg/kg | - |
| Xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| neodecanoic acid, cobalt salt | LD50 Oral | Rat - Female | 1098 mg/kg | - |
| n-Octane | LC50 Inhalation Gas. | Rat | 25260 ppm | 4 hours |
| | LC50 Inhalation Vapor | Rat | 118000 mg/m³ | 4 hours |

## Irritation/Corrosion

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

## Sensitization

| Product/ingredient name | Route of exposure | Species | Result |
|---|---|---|---|
| neodecanoic acid, cobalt salt | skin | Mouse | Sensitizing |

## Mutagenicity

Not available.

## Carcinogenicity

Not available.

## Reproductive toxicity

Not available.

## Teratogenicity

Not available.

## Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| Naphtha (petroleum), hydrotreated heavy | Category 3 | - | Respiratory tract irritation |
| Naphtha (petroleum), hydrodesulfurized heavy | Category 3 | - | Narcotic effects |
| Talc containing no asbestos or quartz | Category 1 | - | respiratory organs |
| Propylene glycol monomethyl ether | Category 3 | - | Narcotic effects |
| n-Nonane | Category 2 | - | central nervous system (CNS) |
| | Category 3 | | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| Ethanol | Category 3 | - | Respiratory tract irritation |

# 11. Toxicological information

| | | | |
|---|---|---|---|
| Xylene | Category 3<br>Category 1 | - | Narcotic effects<br>central nervous system (CNS), kidneys, liver, respiratory organs |
| n-Octane | Category 3<br>Category 3<br>Category 3 | - | Narcotic effects<br>Respiratory tract irritation<br>Narcotic effects |

**Specific target organ toxicity (repeated exposure)**

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| barium sulfate | Category 1 | - | respiratory organs |
| Naphtha (petroleum), hydrodesulfurized heavy | Category 1 | - | central nervous system (CNS) |
| Talc containing no asbestos or quartz | Category 1 | - | respiratory organs |
| carbon black | Category 1 | - | respiratory organs |
| Ethanol | Category 1<br>Category 2 | - | liver<br>central nervous system (CNS) |
| A mixture of: butan-2-one oxime | Category 1 | - | haematopoietic system |
| Xylene | Category 1 | - | nervous system, respiratory organs |
| neodecanoic acid, cobalt salt | Category 1 | oral | gastrointestinal tract |
| crystalline silica (quartz) | Category 1 | - | immune system, kidneys, respiratory organs |

**Aspiration hazard**

| Name | Result |
|---|---|
| Naphtha (petroleum), hydrotreated heavy | ASPIRATION HAZARD - Category 1 |
| Naphtha (petroleum), hydrodesulfurized heavy | ASPIRATION HAZARD - Category 1 |
| n-Nonane | ASPIRATION HAZARD - Category 1 |
| Xylene | ASPIRATION HAZARD - Category 1 |
| n-Octane | ASPIRATION HAZARD - Category 1 |

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

**Potential acute health effects**

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

**Inhalation** : May cause respiratory irritation.

**Skin contact** : May cause damage to organs following a single exposure in contact with skin. Defatting to the skin. May cause skin dryness and irritation.

**Ingestion** : May cause damage to organs following a single exposure if swallowed.

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

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

# 11. Toxicological information

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

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

**Ingestion** : No specific data.

## Delayed and immediate effects and also 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

**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** : May cause cancer. Risk of cancer depends on duration and level of exposure.

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

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

## Numerical measures of toxicity

### Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|---|---|---|---|---|
| SIGMADUR ONE BLACK | N/A | 19655.1 | N/A | 285.7 | N/A |
| barium sulfate | N/A | 2500 | N/A | N/A | N/A |
| Propylene glycol monomethyl ether | 5200 | 13000 | N/A | 11 | N/A |
| n-Nonane | N/A | N/A | N/A | 16.79 | N/A |
| Ethanol | 7000 | 17100 | N/A | 124.7 | N/A |
| A mixture of: butan-2-one oxime | 500 | 1100 | N/A | N/A | N/A |
| Xylene | 4300 | 1700 | N/A | 11 | N/A |
| neodecanoic acid, cobalt salt | 1098 | N/A | N/A | N/A | N/A |
| n-Octane | N/A | N/A | 25260 | 118 | N/A |

**Other information** :

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

# 12. Ecological information

## Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Propylene glycol monomethyl ether | Acute LC50 23300 mg/l | Daphnia | 48 hours |
| | Acute LC50 >4500 mg/l Fresh water | Fish | 96 hours |
| 2-ethylhexanoic acid, zirconium salt | Acute LC50 >100 mg/l | Fish | 96 hours |
| Ethanol | Acute EC50 7640 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |

## Persistence/degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| Ethanol | - | - | Readily |
| Xylene | - | - | Readily |

## Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| Propylene glycol monomethyl ether | <1 | - | low |
| n-Nonane | 5.65 | - | high |
| Ethanol | -0.35 | - | low |
| A mixture of: butan-2-one oxime | 0.63 | 5.01 | low |
| Xylene | 3.12 | 7.4 to 18.5 | low |
| n-Octane | 5.18 | - | high |

## Mobility in soil

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Mobility** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

# 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

# 14. Transport information

| | UN | IMDG | IATA |
|---|---|---|---|
| **UN number** | UN1263 | UN1263 | UN1263 |
| **UN proper shipping name** | PAINT | PAINT | PAINT |
| **Transport hazard class(es)** | 3 | 3 | 3 |
| **Packing group** | III | III | III |
| **Environmental hazards** | No. | No. | No. |
| **Marine pollutant substances** | Not applicable. | Not applicable. | Not applicable. |

**Additional information**

**UN** : None identified.
**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.

**Transport in bulk according to IMO instruments** : Not applicable.

# 15. Regulatory information

**Fire Service Law**

| Category | Substance name/Type | Danger category | Signal word | Designated quantity |
|---|---|---|---|---|
| Category IV | Class II petroleums | III | Flammable - Keep Fire Away | 1000 L |

**Pollutant Release and Transfer Registers (PRTR)**

None of the components are listed.

**Industrial Safety and Health Act**

**Ordinance on the Prevention of the Hazard due to Specified Chemical Substances**

None of the components are listed.

**Substance(s) requiring labelling**

| Ingredient name | % | Status | Reference number |
|---|---|---|---|
| Petroleum naphtha | ≤10 | Listed | 330 |
| Carbon black | ≤10 | Listed | 130 |
| Propylene glycol monomethyl ether | ≤10 | Listed | 496 |
| Nonane | ≤10 | Listed | 432 |
| Zirconium compounds | ≤10 | Listed | 313 |
| Ethanol | ≤10 | Listed | 61 |
| Cobalt and its compounds | ≤10 | Listed | 172 |

# 15. Regulatory information

| | | | |
|---|---|---|---|
| Crystalline silica | ≤10 | Listed | 165-2 |

## Chemicals requiring notification

| Ingredient name | % | Status | Reference number |
|---|---|---|---|
| Petroleum naphtha | ≤10 | Listed | 330 |
| Carbon black | ≤10 | Listed | 130 |
| Propylene glycol monomethyl ether | ≤10 | Listed | 496 |
| Nonane | ≤10 | Listed | 432 |
| Zirconium compounds | ≤10 | Listed | 313 |
| Ethanol | ≤10 | Listed | 61 |
| Xylene | ≤10 | Listed | 136 |
| Cobalt and its compounds | ≤10 | Listed | 172 |
| Crystalline silica | ≤10 | Listed | 165-2 |

## Carcinogen

None of the components are listed.

## Mutagen

None of the components are listed.

**Corrosive liquid** : Not listed

**Occupational Safety and Health Law** : Inflammable

**Regulations on the Prevention of Tetraalkyl Lead Poisoning** : Not listed

**Harmful Substances Subject to Obtaining Permission for Manufacturing** : Not listed

**Harmful Substances, Prohibited for Manufacturing** : Not listed

**ISHL Enforcement Order Appendix 1 - Dangerous Substances** : Inflammable

**Lead regulation** : Not listed

**Organic solvents poisoning prevention** : Not applicable.

## Poisonous and Deleterious Substances

None of the components are listed.

## Chemical Substances Control Law (CSCL)

| Ingredient name | % | Status | Reference number |
|---|---|---|---|
| 1,2,4-Trimethylbenzene | 0.5683 | Priority assessment | 49 |
| Butan-2-one oxime | 0.19726 | Priority assessment | 262 |
| Xylene | 0.19243 | Priority assessment | 125 |
| 1,3,5-Trimethylbenzene | 0.11366 | Priority assessment | 201 |
| Cumene | 0.045464 | Priority assessment | 126 |
| n-Hexane | 0.041791 | Priority assessment | 3 |
| Ethylbenzene | 0.034098 | Priority assessment | 50 |

# 15. Regulatory information

| | | | |
|---|---|---|---|
| Benzene | 0.01884 | Priority assessment | 45 |
| Isopropyl alcohol | 0.003 | Priority assessment | 102 |
| 2-Butoxyethanol | 0.0025124 | Priority assessment | 109 |
| Toluene | 0.00077289 | Priority assessment | 46 |

**High Pressure Gas Control Law** : Not available.

**Explosives Control Law**

None of the components are listed.

**Law concerning prevention of pollution of the ocean** : Not available.

**Maritime Safety Law**

**Notification Regulating Transportation of Dangerous Materials by Sea**

None of the components are listed.

**Container class**

None of the components are listed.

**JSOH Carcinogen** : Group 1

**List of Specially Controlled Industrial Waste** : Not listed

**Japan inventory** : At least one component is not listed.

**Road law** : Not available.

# 16. Other information

**History**

**Date of issue/Date of revision** : 23 November 2022

**Date of previous issue** : 3/1/2022

**Version** : 25

**Prepared by** : EHS

**Key to abbreviations** : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
UN = United Nations

**Indicates information that has changed from previously issued version.**

**Notice to reader**

# 16. Other information

**The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.**