# SAFETY DATA SHEET

**SIGMARINE 48 BASE Z**

**Date of issue** **12 February 2026**
**Version 3**

## 1. Product and company identification

| | | |
|---|---|---|
| **Product name** | : | SIGMARINE 48 BASE Z |
| **Product code** | : | 000010024123 |
| **Other means of identification** | : | 00445034; 00445035 ; 30015053 |
| **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<br>SKIN IRRITATION - Category 2<br>EYE IRRITATION - Category 2A<br>RESPIRATORY SENSITIZATION - Category 1<br>SKIN SENSITIZATION - Category 1<br>CARCINOGENICITY - Category 1A<br>TOXIC TO REPRODUCTION - Category 1A<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1<br>HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 3<br>HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 2 |

### GHS label elements

| | | |
|---|---|---|
| **Hazard pictograms** | : |  |
| **Signal word** | : | Danger |

## 2. Hazards identification

**Hazard statements** : Flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause drowsiness or dizziness.
May cause cancer.
May damage fertility or the unborn child.
May cause damage to organs. (central nervous system (CNS), kidneys, liver, respiratory organs)
Causes damage to organs through prolonged or repeated exposure. (nervous system, respiratory organs)
Harmful to aquatic life.
Toxic to aquatic life with long lasting effects.

**Precautionary statements**

**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. Wear respiratory 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. Contaminated work clothing should not be allowed out of the workplace.

**Response** : Collect spillage. 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 experiencing respiratory symptoms: Call a POISON CENTER or doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice or attention. 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. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C ( 140F).

## 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), hydrodesulfurized heavy | 25 - <50 | 64742-82-1 | Not available. |
| Naphtha (petroleum), hydrotreated heavy | 12.5 - <15 | 64742-48-9 | Not available. |
| Talc (containing no asbestos or quartz) | 5 - <7 | 14807-96-6 | Not available. |
| 2-ethylhexanoic acid | 3 - <5 | 149-57-5 | 2-608 |
| Xylene | 2 - <3 | 1330-20-7 | 3-3; 3-60 |
| Solvent naphtha (petroleum), heavy arom | 1 - <2 | 64742-94-5 | Not available. |
| calcium bis(2-ethylhexanoate) | 0.5 - <1 | 136-51-6 | 2-611 |
| 2-ethylhexanoic acid, zirconium salt | 0.5 - <1 | 22464-99-9 | 2-615 |

# 3. Composition/information on ingredients

| | | | |
|---|---|---|---|
| cobalt(II) 2-ethylhexanoate | 0.2 - <0.5 | 136-52-7 | 2-615 |
| Ethylbenzene | 0.2 - <0.5 | 100-41-4 | 3-28; 3-60 |
| Ethanol | 0.2 - <0.5 | 64-17-5 | 2-202 |
| Butan-2-one oxime | 0.1 - <0.2 | 96-29-7 | 2-546 |

**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** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin contact** : May cause damage to organs following a single exposure in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

**Ingestion** : May cause damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.

### Over-exposure signs/symptoms

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

**Inhalation** : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

# 4. First aid measures

| | |
|---|---|
| **Skin contact** | : Adverse symptoms may include the following:<br>irritation<br>redness<br>dryness<br>cracking<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations |
| **Ingestion** | : Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations |

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

| | |
|---|---|
| **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. |
| **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. |
| **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 toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| **Hazardous thermal decomposition products** | : Decomposition products may include the following materials:<br>carbon oxides<br>nitrogen oxides<br>metal oxide/oxides<br>Formaldehyde. |
| **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. Collect spillage.

## 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). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. 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.

# 7. Handling and storage

**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

| | |
|---|---|
| Talc , not containing asbestiform fibres | **Japan Society for Occupational Health (Japan, 5/2024) [class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, pyrophylite, Pyrites, Pyrite cinder)]**<br>OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust).<br>OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust). |
| 2-ethylhexanoic acid | **Technical Guideline Concerning the Applications, etc. of Concentration Standard for Preventing Health Hazards (Japan, 6/2024)**<br>TWA 8 hours: 5 mg/m³. |
| xylene | **Japan Society for Occupational Health (Japan, 5/2024)**<br>OEL-M 8 hours: 50 ppm.<br>OEL-M 8 hours: 217 mg/m³.<br>**Industrial Safety and Health Act (Japan, 2/2025) [xylene]**<br>TWA 8 hours: 50 ppm. |
| cobalt bis(2-ethylhexanoate) | **Japan Society for Occupational Health (Japan, 5/2024) [Cobalt and compounds]** Inhalation sensitizer , Skin sensitizer.<br>OEL-M 8 hours: 0.05 mg/m³ (as Co). |
| ethylbenzene | **Japan Society for Occupational Health (Japan, 5/2024)** Absorbed through skin.<br>OEL-M 8 hours: 20 ppm.<br>OEL-M 8 hours: 87 mg/m³.<br>**Industrial Safety and Health Act (Japan, 2/2025)**<br>TWA 8 hours: 20 ppm. |

**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.

## 8. Exposure controls/personal protection

**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. 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.

**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** : 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.

**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.

**Odor** : Aromatic.

**Boiling point** : >37.78°C (>100°F)

**Flash point** : Closed cup: 29.2°C (84.6°F)

**Relative density** : 0.94

**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 nitrogen oxides Formaldehyde. metal oxide/oxides |

# 11. Toxicological information

## Information on toxicological effects

### Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Naphtha (petroleum), hydrodesulfurized heavy | LD50 Dermal | Rabbit | >2000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| Naphtha (petroleum), hydrotreated heavy | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | >6 g/kg | - |
| 2-ethylhexanoic acid | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | 3640 mg/kg | - |
| Xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| Solvent naphtha (petroleum), heavy arom | LC50 Inhalation Dusts and mists | Rat | >5.2 mg/l | 4 hours |
| | LD50 Oral | Rat | >5 g/kg | - |
| 2-ethylhexanoic acid, zirconium salt | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| cobalt(II) 2-ethylhexanoate | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | 3129 mg/kg | - |
| Ethylbenzene | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| Ethanol | LC50 Inhalation Vapor | Rat | 124700 mg/m$^3$ | 4 hours |
| | LD50 Dermal | Rat | 17100 mg/kg | - |
| | LD50 Oral | Rat | 7 g/kg | - |
| Butan-2-one oxime | LD50 Dermal | Rabbit | 1100 mg/kg | - |
| | LD50 Oral | Rat | 100 mg/kg | - |

### Irritation/Corrosion

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

### Sensitization

Not available.

# 11. Toxicological information

## 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), hydrodesulfurized heavy | Category 3 | - | Narcotic effects |
| Naphtha (petroleum), hydrotreated heavy | Category 3 | - | Respiratory tract irritation |
| Talc (containing no asbestos or quartz) | Category 1 | - | respiratory organs |
| 2-ethylhexanoic acid | Category 2 | - | respiratory system |
| Xylene | Category 1 | - | central nervous system (CNS), kidneys, liver, respiratory organs |
| - | Category 3 | - | Narcotic effects |
| Solvent naphtha (petroleum), heavy arom | Category 3 | - | Respiratory tract irritation |
| - | Category 3 | - | Narcotic effects |
| Ethylbenzene | Category 3 | - | Respiratory tract irritation |
| - | Category 3 | - | Narcotic effects |
| Ethanol | Category 3 | - | Respiratory tract irritation |
| - | Category 3 | - | Narcotic effects |
| Butan-2-one oxime | Category 3 | - | Narcotic effects |

## Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| Naphtha (petroleum), hydrodesulfurized heavy | Category 1 | - | - |
| Talc (containing no asbestos or quartz) | Category 1 | - | respiratory organs |
| Xylene | Category 1 | - | nervous system, respiratory organs |
| Ethylbenzene | Category 1 | - | hearing organs, nervous system |
| Ethanol | Category 1 | - | liver |
| - | Category 2 | - | central nervous system (CNS) |
| Butan-2-one oxime | Category 1 | - | haematopoietic system |

## Aspiration hazard

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

# 11. Toxicological information

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

### Potential acute health effects

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

**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin contact** : May cause damage to organs following a single exposure in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

**Ingestion** : May cause damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.

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

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

**Inhalation** : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

### 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

## 11. Toxicological information

| | |
|---|---|
| **General** | : Causes damage to organs through prolonged or repeated exposure. 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** | : May cause cancer. Risk of cancer depends on duration and level of exposure. |
| **Mutagenicity** | : No known significant effects or critical hazards. |
| **Reproductive toxicity** | : May damage fertility or the unborn child. |

### 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) |
|---|---|---|---|---|---|
| SIGMARINE 48 BASE Z | N/A | 3374.7 | N/A | 79.5 | N/A |
| Naphtha (petroleum), hydrodesulfurized heavy | N/A | 2500 | N/A | N/A | N/A |
| 2-ethylhexanoic acid | 3640 | 1100 | N/A | N/A | N/A |
| Xylene | 4300 | 1700 | N/A | 11 | N/A |
| cobalt(II) 2-ethylhexanoate | 3129 | N/A | N/A | N/A | N/A |
| Ethylbenzene | 3500 | 17800 | N/A | 17.8 | N/A |
| Ethanol | 7000 | 17100 | N/A | 124.7 | N/A |
| Butan-2-one oxime | 500 | 1100 | N/A | N/A | 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. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C ( 140F). Avoid contact with skin and clothing.

## 12. Ecological information

### Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Solvent naphtha (petroleum), heavy arom | NOEL 0.48 mg/l Fresh water | Daphnia | 21 days |
| 2-ethylhexanoic acid, zirconium salt | Acute LC50 >100 mg/l | Fish | 96 hours |
| Ethylbenzene | Acute EC50 1.8 mg/l Fresh water | Daphnia | 48 hours |
| | Chronic NOEC 1 mg/l Fresh water | Daphnia - *Ceriodaphnia dubia* | - |
| Ethanol | Acute EC50 7640 mg/l Fresh water | Daphnia - *Daphnia magna* | 48 hours |

### Persistence/degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|---|---|---|---|---|
| Ethylbenzene | - | 79 % - Readily - 10 days | - | - |

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

# 12. Ecological information

## Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| Naphtha (petroleum), hydrodesulfurized heavy | - | 10 to 2500 | High |
| 2-ethylhexanoic acid | 2.7 | - | Low |
| Xylene | 3.12 | 7.4 to 18.5 | Low |
| Solvent naphtha (petroleum), heavy arom | 2.8 to 6.5 | - | High |
| Ethylbenzene | 3.6 | 79.43 | Low |
| Ethanol | -0.35 | - | Low |
| Butan-2-one oxime | 0.63 | 5.01 [OECD 305 C] | Low |

## Mobility in soil

**Soil/Water partition coefficient** : 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** | Yes. The environmentally hazardous substance mark is not required. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| **Marine pollutant substances** | Not applicable. | (Naphtha (petroleum), hydrodesulfurized heavy) | Not applicable. |

## 14. Transport information

### Additional information

**UN** : None identified.
**IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
**IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

**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)

| Ingredient name | | | |
|---|---|---|---|
| Xylene | 2.2 | Class 1 | 80 |

### 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 |
|---|---|---|---|
| 2-Ethylhexanoic acid | ≤10 | Listed | 2-243 |
| Xylene | ≤10 | Listed | 2-426 |
| Petroleum naphtha | ≤10 | Listed | 2-1142 |
| Cobalt and its compounds | ≤10 | Listed | 12 |
| Ethylbenzene | ≤10 | Listed | 2-247 |
| Ethanol | ≤10 | Listed | 2-205 |

### Chemicals requiring notification

| Ingredient name | % | Status | Reference number |
|---|---|---|---|
| 2-Ethylhexanoic acid | ≤10 | Listed | 2-243 |
| Xylene | ≤10 | Listed | 2-426 |
| Petroleum naphtha | ≤10 | Listed | 2-1142 |
| Cobalt and its compounds | ≤10 | Listed | 12 |
| Ethylbenzene | ≤10 | Listed | 2-247 |
| Ethanol | ≤10 | Listed | 2-205 |
| Butan-2-one oxime | ≤10 | Listed | 2-1721 |

### Carcinogens based on Article 577-2 of the Ordinance on ISH

None of the components are listed.

# 15. Regulatory information

## 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 |
|---|---|---|---|
| Xylene | ≤10 | Priority assessment | 125 |
| Ethylbenzene | ≤10 | Priority assessment | 50 |
| Butan-2-one oxime | ≤10 | Priority assessment | 262 |
| 2-Butoxyethanol | ≤10 | Priority assessment | 109 |

**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 2B

## 15. Regulatory information

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

**Japan inventory** : All components are listed or exempted.

**Road law** : Not available.

## 16. Other information

### History

**Date of issue/Date of revision** : 12 February 2026

**Date of previous issue** : 10/24/2025

**Version** : 3

**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

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