SAFETY DATA SHEET

SF ZINC PRIMER HARDENER



Date of issue 2 October 2024

Version 13.01

1. Product and company identification

| Product name | : SF ZINC PRIMER HARDENER |
|------------------------|--|
| Product code | : 00393158 |
| Product type | : Liquid. |
| Relevant identified us | ses of the substance or mixture and uses advised against |
| Product use | Professional applications lsed by spraving |

| 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 2 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1A TOXIC TO REPRODUCTION - Effects on or via lactation SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 2 HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - |
|--|--|
| <u>GHS label elements</u> Hazard pictograms | Category 2 |
| Signal word | : Danger |

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|--|---|--|--|--|
| Product name SF ZINC PRIMER HARDENER 2. Hazards identification | | | | |
| | | | | |
| Hazard statements | Highly flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. May damage fertility or the unborn child. May cause harm to breast-fed children. Causes damage to organs. (central nervous system (CNS), kidneys, liver, respiratory organs) | | | |
| | Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS), hearing organs, kidneys, nervous system, respiratory organs) 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. 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. Avoid contact during pregnancy and while nursing. 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 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. Immediately call a POISON CENTER or doctor. | | | |
| 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 |
|---|------------|------------|---------------|
| Toluene | 25 - <50 | 108-88-3 | 3-2; 3-60 |
| Xylene | 25 - <50 | 1330-20-7 | 3-3; 3-60 |
| isobutyl alcohol | 12.5 - <15 | 78-83-1 | 2-3049 |
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | 5 - <7 | 68082-29-1 | 7-401 |
| Ethyl Benzene | 3 - <5 | 100-41-4 | 3-28; 3-60 |
| 2,4,6-Tris(dimethylaminomethyl)phenol | 1 - <2 | 90-72-2 | 3-714; 3-762; |
| | <u> </u> | Jap | an Page: 2/15 |

| Product code 003931 Product name SF ZING | | | te of issue 2 October 20 | 024 Version 13.01 |
|--|--|--|--------------------------|---------------------|
| 3. Compositio | on/informat | tion on ingredien | ts | |
| 3,6-diazaoctanethylene | ediamin | 0.5 - <1 | 112-24-3 | 3-776 2-163; 7-5 |
| concentrations applic reporting in this secti | able, are classifi on. | esent which, within the cu ed as hazardous to health ble, are listed in Section 8 | or the environment and | •• |
| | | out registered CAS Numbe | | |
| 4. First aid me | asures | | | |
| Description of necess | ary first aid meas | sures | | |
| Eye contact | | for and remove any contact or at least 15 minutes, keepi on. | | |
| Inhalation | irregula | 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 sympt | oms/effects. acu | te and delaved | | |
| Potential acute health | | | | |
| Eye contact | : Causes | s serious eye damage. | | |
| Inhalation | : Harmfu | Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. | | |
| Skin contact | | Causes 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 | | Causes damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression. | | |
| Over-exposure signs | <u>/symptoms</u> | | | |
| Eye contact | pain waterin | Adverse symptoms may include the following: | | |
| Inhalation | respira coughi nausea headad drowsin dizzine uncons reduce increas | a or vomiting | e following: | |

 skeletal malformations

 Skin contact
 : Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced fetal weight increase in fetal deaths

4. First aid measures

| | | skeletal malformations |
|-----------------------------|-----|---|
| Ingestion | : | Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations |
| Indication of immediate med | ica | l 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 | 1 | 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 | : Highly 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: carbon oxides nitrogen oxides halogenated compounds | |
| 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|--------------------------------|--|
|--------------------------------|--|

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| Product name SF ZINC PRIMER H | DENER | |
| 6. Accidental release | easures | |
| info | alized clothing is required to deal with the spillage, take note o ation in Section 8 on suitable and unsuitable materials. See a ation in "For non-emergency personnel". | |
| and pol | dispersal of spilled material and runoff and contact with soil, w wers. Inform the relevant authorities if the product has cause n (sewers, waterways, soil or air). Water polluting material. N <i>r</i> ironment if released in large quantities. Collect spillage. | d environmental |
| Methods and materials for contain | nt 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 noncombustible, 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 : Put on appropriate personal protective equipment (see Section 8). Persons with a handling history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid contact during pregnancy or while nursing. 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.

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 |
|--|---|---|
| koluene | | Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 ppm. OEL-M 8 hours: 188 mg/m ³ . Industrial Safety and Health Act (Japan, 6/2020) |
| xylene | | TWA 8 hours: 20 ppm. Japan Society for Occupational Health (Japan, 5/2023) OEL-M 8 hours: 50 ppm. OEL-M 8 hours: 217 mg/m ³ . Industrial Safety and Health Act (Japan, |
| 2-methylpropan-1-ol | | 6/2020) [xylene] TWA 8 hours: 50 ppm. Japan Society for Occupational Health |
| | | (Japan, 5/2023) OEL-M 8 hours: 50 ppm. OEL-M 8 hours: 150 mg/m ³ . Industrial Safety and Health Act (Japan, 6/2020) |
| ethylbenzene | | TWA 8 hours: 50 ppm. Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 20 ppm. OEL-M 8 hours: 87 mg/m ³ . Industrial Safety and Health Act (Japan, 6/2020) TWA 8 hours: 20 ppm. |
| Recommended monitoring procedures | ing : 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 | or other engineering controls to keep below any recommended or statutory | se process enclosures, local exhaust ventilatior worker exposure to airborne contaminants limits. The engineering controls also need to is below any lower explosive limits. Use |
| Environmental exposure controls | : Emissions from ventilation or work pro they comply with the requirements of | ocess equipment should be checked to ensure environmental protection legislation. In some neering modifications to the process equipment |
| ndividual protection measure | <u>ures</u> | |
| Hygiene measures | eating, smoking and using the lavator Appropriate techniques should be use Contaminated work clothing should ne | bughly after handling chemical products, before y and at the end of the working period. ed to remove potentially contaminated clothing. of be allowed out of the workplace. Wash Ensure that eyewash stations and safety location. |
| Eye protection <u>Skin protection</u> | : Chemical splash goggles and face sh | ield. |

8. Exposure controls/personal 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

| Solubility(ies) | : cold water | Result Not soluble |
|-------------------|-----------------------|-----------------------|
| | Media | Paquit |
| Relative density | : 0.89 | |
| Flash point | : Closed cup: 12°C (5 | 3.6°F) |
| Boiling point | : >37.78°C (>100°F) | |
| Odor | : Characteristic. | |
| Color | : Colorless. | |
| Physical state | : Liquid. | |
| <u>Appearance</u> | | |

| 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. | | | |

10. Stability and reactivity

Hazardous decomposition products

: Evolves hydrogen on contact with water. Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds

11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|------------------------------|-----------------------|---------|-------------|----------|
| Toluene | LC50 Inhalation Vapor | Rat | 49 g/m³ | 4 hours |
| | LD50 Dermal | Rabbit | 8.39 g/kg | - |
| | LD50 Oral | Rat | 5580 mg/kg | - |
| Xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| isobutyl alcohol | LC50 Inhalation Vapor | Rat | 24.6 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 2460 mg/kg | - |
| | LD50 Oral | Rat | 2830 mg/kg | - |
| Fatty acids, C18-unsatd., | LD50 Dermal | Rat | >2000 mg/kg | - |
| dimers, oligomeric reaction | | | | |
| products with tall-oil fatty | | | | |
| acids and | | | | |
| triethylenetetramine | | | | |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| Ethyl Benzene | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| 2,4,6-Tris | LD50 Dermal | Rat | 1280 mg/kg | - |
| (dimethylaminomethyl) | | | | |
| phenol | | | | |
| | LD50 Oral | Rat | 1200 mg/kg | - |
| 3,6-diazaoctanethylenediamin | LD50 Dermal | Rabbit | 1465 mg/kg | - |
| | LD50 Oral | Rat | 1716 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-------|--------------------|-------------|
| Xylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | Eyes - Severe irritant | Rabbit | - | - | - |
| 2 | Skin - Irritant | Human | - | - | - |

Sensitization

| ••••••••••••••••••••••••••••••••••••••• | Route of exposure | Species | Result | |
|---|-------------------|---------------------|-------------|--|
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6-diazaoctanethylenediamin | skin | Mouse Guinea pig | Sensitizing | |

Mutagenicity

Not available.

11. Toxicological information

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|------------------------------|------------|-------------------|---|
| Toluene | Category 1 | - | central nervous system (CNS) |
| | Category 3 | | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| Xylene | Category 1 | - | central nervous system (CNS), kidneys, liver, |
| | | | respiratory organs |
| | Category 3 | | Narcotic effects |
| isobutyl alcohol | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| Ethyl Benzene | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| 3,6-diazaoctanethylenediamin | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---------------|------------|-------------------|---|
| Toluene | Category 1 | - | central nervous system (CNS), kidneys |
| Xylene | Category 1 | - | nervous system, respiratory organs |
| Ethyl Benzene | Category 1 | - | hearing organs, nervous system |

Aspiration hazard

| Name | Result |
|---------------|--------------------------------|
| | ASPIRATION HAZARD - Category 1 |
| Xylene | ASPIRATION HAZARD - Category 1 |
| Ethyl Benzene | ASPIRATION HAZARD - Category 1 |

| Information on the likely routes of exposure | : | Not available. |
|--|----------|---|
| Potential acute health effect | <u>s</u> | |
| Eye contact | : | Causes serious eye damage. |
| Inhalation | : | Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. |

| Product code 00393158 Product name SF ZINC PR | Date of issue 2 October 2024 Version 13.01 IMER HARDENER |
|--|---|
| 11. Toxicologica | I information |
| Skin contact | : Causes 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 | : Causes 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 watering redness |
| Inhalation | : Adverse symptoms may include the following: respiratory tract irritation coughing 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: pain or irritation redness dryness cracking blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations |
| Ingestion | : Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations |

| Short term exposure | |
|------------------------------|--|
| Potential immediate effects | : Not available. |
| Potential delayed effects | : Not available. |
| Long term exposure | |
| Potential immediate effects | : Not available. |
| Potential delayed effects | : Not available. |
| Potential chronic health eff | <u>fects</u> |
| 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 | : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. |
| Mutagenicity | : No known significant effects or critical hazards. |

11. Toxicological information

Reproductive toxicity

: May damage fertility or the unborn child. May cause harm to breast-fed children.

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) |
|---|------------------|-------------------|--------------------------------|----------------------------------|--|
| SF ZINC PRIMER HARDENER | 25904.5 | 5395.2 | N/A | 11.6 | N/A |
| Toluene | 5580 | 8390 | N/A | 11 | N/A |
| Xylene | 4300 | 1700 | N/A | 11 | N/A |
| isobutyl alcohol | 2830 | 2460 | N/A | 11 | N/A |
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | 2500 | 2500 | N/A | N/A | N/A |
| Ethyl Benzene | 3500 | 17800 | N/A | 17.8 | N/A |
| 2,4,6-Tris(dimethylaminomethyl)phenol | 1200 | 1280 | N/A | N/A | N/A |
| 3,6-diazaoctanethylenediamin | N/A | 300 | N/A | N/A | N/A |

Other information

Prolonged or repeated contact may dry skin and cause irritation. 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

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Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|--|--|---------------|
| isobutyl alcohol | Acute EC50 1100 mg/l | Daphnia | 48 hours |
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | EC10 1.78 mg/l | Algae | 72 hours |
| Ethyl Benzene | Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water | Daphnia Daphnia - <i>Ceriodaphnia dubia</i> | 48 hours - |
| 2,4,6-Tris (dimethylaminomethyl)phenol | Acute LC50 >100 mg/l | Daphnia | 48 hours |
| | Acute LC50 >100 mg/l | Fish | 96 hours |

Persistence/degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-----------------------------|-----------|---|------|----------|
| (dimethylaminomethyl)phenol | OECD 301D | 79 % - Readily - 10 days 4 % - Not readily - 28 days | - | - |

12. Ecological information

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|------------------------------|-------------------|------------|------------------|
| Toluene | - | - | Readily |
| Xylene | - | - | Readily |
| Fatty acids, C18-unsatd., | - | - | Not readily |
| dimers, oligomeric reaction | | | |
| products with tall-oil fatty | | | |
| acids and | | | |
| triethylenetetramine | | | |
| Ethyl Benzene | - | - | Readily |
| 2,4,6-Tris | - | - | Not readily |
| (dimethylaminomethyl)pheno | | | |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|------------------------------|--------|-------------|-----------|
| Toluene | 2.73 | 8.32 | Low |
| Xylene | 3.12 | 7.4 to 18.5 | Low |
| isobutyl alcohol | 1 | - | Low |
| Ethyl Benzene | 3.6 | 79.43 | Low |
| 2,4,6-Tris | 0.219 | - | Low |
| (dimethylaminomethyl)phenol | | | |
| 3,6-diazaoctanethylenediamin | | - | Low |

| <u>Mobility in soil</u> | |
|--|---|
| Soil/water partition coefficient (Koc) | : 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. 2 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 | ΙΑΤΑ |
|-----------------------------|-----------------|-----------------|-----------------|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3 | 3 | 3 |
| Packing group | II | Ш | II |
| Environmental hazards | No. | No. | No. |
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. |

Additional information

| UN | : None identified. |
|------|--------------------|
| IMDG | : None identified. |
| ΙΑΤΑ | : 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 : Not applicable. to IMO instruments

15. Regulatory information

Fire Service Law

| Category | Substance name/Type | Danger category | Signal word | Designated quantity |
|-------------|---------------------|--------------------|----------------------------|---------------------|
| Category IV | Class I petroleums | II | Flammable - Keep Fire Away | 200 L |

Pollutant Release and Transfer Registers (PRTR)

| Ingredient name | % | Status | Reference number |
|-----------------|-----|---------|---------------------|
| Toluene | 41 | Class 1 | 300 |
| Xylene | 25 | Class 1 | 80 |
| Ethylbenzene | 4.4 | Class 1 | 53 |

Industrial Safety and Health Act

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

| Ingredient name | % | | Reference number |
|-----------------|-----|--------------------------|---------------------|
| ethyl benzene | ≤10 | Special Organic Solvents | 3-3 |

Substance(s) requiring labelling

15. Regulatory information

| Ingredient name | % | Status | Reference number |
|-------------------------|------------------------|------------------|---------------------|
| Xylene | ≥40 - ≤50 ≥20 - ≤30 | Listed | 407 136 |
| Butanol Ethylbenzene | ≥10 - ≤20 ≤10 | Listed Listed | 477 70 |

Chemicals requiring notification

| Ingredient name | % | | Reference number |
|-----------------|------------------------|------------------|---------------------|
| Toluene | ≥40 - ≤50 | Listed | 407 |
| | ≥20 - ≤30 ≥10 - ≤20 | Listed Listed | 136 477 |
| Ethylbenzene | ≤10 | Listed | 70 |

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

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 | : Class 2 |

Poisonous and Deleterious Substances

None of the components are listed.

Chemical Substances Control Law (CSCL)

| Ingredient name | % | | Reference number |
|-----------------|-----------|---------------------|---------------------|
| Toluene | ≥40 - ≤50 | Priority assessment | 46 |
| Xylene | ≥20 - ≤30 | Priority assessment | 125 |
| Ethylbenzene | ≤10 | Priority assessment | 50 |

High Pressure Gas Control : Not available. Law

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15. Regulatory information

Explosives Control Law

None of the components are listed.

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

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 List of Specially Controlled | : Group 2B : Not listed |
|---|--|
| Industrial Waste Japan inventory | : All components are listed or exempted. |
| Road law | : Not available. |

16. Other information

| <u>History</u> | |
|--------------------------------|---|
| Date of issue/Date of revision | : 2 October 2024 |
| Date of previous issue | : 6/27/2024 |
| Version | : 13.01 |
| 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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