SAFETY DATA SHEET

SOLO® Interior/Exterior 100% Acrylic, Eg-Shel Extra White

In accordance with the Standard for Classification and Labeling of Chemical Substance and Safety Data Sheet, Article 10 Paragraph 1

Section 1. Chemical product and company identification

A. Product name : SOLO® Interior/Exterior 100% Acrylic, Eg-Shel Extra White
   Product code : A75W51
   Product use : Consumer applications, Used by spraying.

B. Relevant identified uses of the substance or mixture and uses advised against
   Identified uses : Not applicable.
   Uses advised against : Not applicable.

C. Manufacturer : THE SHERWIN-WILLIAMS COMPANY
   Address : 101 W. Prospect Avenue
             Cleveland, OH 44115
   e-mail address of person responsible for this SDS : sds@sherwin.com

   Emergency telephone number (with hours of operation) : 00-308-13-2549
   + (82) 070-7686-0086
   Emergency contact available 24 hours a day

Section 2. Hazards identification

A. Hazard classification : CARCINOGENICITY - Category 1A
   AQUATIC HAZARD (LONG-TERM) - Category 3
   This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements
   Symbol :

   Signal word : Danger
   Hazard statements : H350 - May cause cancer.
                      H412 - Harmful to aquatic life with long lasting effects.

   Precautionary statements
   General : P103 - Read label before use.
             P102 - Keep out of reach of children.
             P101 - If medical advice is needed, have product container or label at hand.
   Prevention : P201 - Obtain special instructions before use.
                P202 - Do not handle until all safety precautions have been read and understood.
                P280 - Wear protective gloves, protective clothing and eye or face protection.
                P273 - Avoid release to the environment.
   Response : P308 + P313 - IF exposed or concerned: Get medical advice or attention.
Section 2. Hazards identification

Storage: P405 - Store locked up.
Disposal: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

C. Other hazards which do not result in classification

Please refer to the SDS for additional information.

Section 3. Composition/information on ingredients

| Substance/mixture | : Mixture |
| Other means of identification | : Not available. |

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Common name</th>
<th>Identifiers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Dioxide</td>
<td>TITANIUM DIOXIDE SOLIDS</td>
<td>CAS: 13463-67-7</td>
<td>≥10 - ≤15</td>
</tr>
<tr>
<td>Cristobalite, respirable powder</td>
<td>CRISTOBALITE 100 PCT</td>
<td>CAS: 14464-46-1</td>
<td>≤5</td>
</tr>
<tr>
<td>Zinc Pyrithione</td>
<td>ZINC OMADINE FOR 212411</td>
<td>CAS: 13463-41-7</td>
<td>≤5</td>
</tr>
<tr>
<td>Zinc Oxide</td>
<td>ZINC OXIDE</td>
<td>CAS: 1314-13-2</td>
<td>≤5</td>
</tr>
<tr>
<td>5-Chloro-2-methylisothiazolinone</td>
<td>2-METHYL-5-CHLOROISOTHIAZOLIN-3-ONE</td>
<td>CAS: 26172-55-4</td>
<td>≤5</td>
</tr>
<tr>
<td>Oxirane</td>
<td>ETHYLENE OXIDE</td>
<td>CAS: 75-21-8</td>
<td>≤5</td>
</tr>
<tr>
<td>Sulfuric Acid</td>
<td>SULFURIC ACID 93% 66 BAUME</td>
<td>CAS: 7664-93-9</td>
<td>≤5</td>
</tr>
<tr>
<td>Methanol</td>
<td>METHYL ALCOHOL ANHYDROUS</td>
<td>CAS: 67-56-1</td>
<td>≤5</td>
</tr>
</tbody>
</table>

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.

Section 4. First aid measures

A. Eye contact

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

B. Skin contact

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

C. Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Section 4. First aid measures

D. Ingestion: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

E. 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)

Section 5. Fire-fighting measures

A. Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

B. Specific hazards arising from the chemical

Hazardous thermal decomposition products: Decomposition products may include the following materials: metal oxide/oxides

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.

Special precautions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Section 6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures: 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

B. 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.

C. Methods and materials for containment and cleaning up
Section 6. Accidental release measures

Small spill: Stop leak if without risk. Move containers from spill area. 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. 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.

Section 7. Handling and storage

A. Precautions for safe handling

Protective measures: 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 ingest. Avoid breathing vapor or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

B. Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. 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. 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.

Section 8. Exposure controls/personal protection

A. Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Dioxide</td>
<td>Ministry of Employment and Labor (Republic of Korea, 1/2020). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Cristobalite, respirable powder</td>
<td>Ministry of Employment and Labor (Republic of Korea, 1/2020). TWA: 0.05 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>Ministry of Employment and Labor (Republic of Korea, 1/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable dust STEL: 10 mg/m³ 15 minutes. TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>ethylene oxide</td>
<td>Ministry of Employment and Labor</td>
</tr>
</tbody>
</table>

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Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA</th>
<th>STEL</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>sulfuric acid</td>
<td>1 ppm 8 hours</td>
<td>0.6 mg/m³ 15 minutes</td>
<td>Thoracic fraction</td>
</tr>
<tr>
<td>methyl alcohol</td>
<td>0.2 mg/m³ 8 hours</td>
<td>250 ppm 15 minutes</td>
<td>Thoracic fraction</td>
</tr>
</tbody>
</table>

**Biological exposure indices**

No exposure indices known.

**B. Appropriate engineering controls**

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**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.

**C. Personal protective equipment**

**Respiratory protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**Eye protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**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.

**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.

**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.
Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

A. Appearance
   Physical state : Liquid.
   Color : Not available.
B. Odor : Not available.
C. Odor threshold : Not available.
D. pH : 8.5
E. Melting/freezing point : Not available.
F. Boiling point, initial boiling point, and boiling range : 100°C (212°F)
G. Flash point : Closed cup: Not applicable.
   Fire point : Not available.
H. Evaporation rate : 0.09 (butyl acetate = 1)
I. Flammability (solid, gas) : Not available.
J. Lower and upper explosive (flammable) limits : Not available.
K. Vapor pressure : 2.3 kPa (17.5 mm Hg)
L. Solubility(ies) :

<table>
<thead>
<tr>
<th>Media</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>cold water</td>
<td>Partially soluble</td>
</tr>
</tbody>
</table>

Solubility in water : Not available.
M. Vapor density : 1 [Air = 1]
N. Relative density : 1.27
O. Partition coefficient: n-octanol/water : Not applicable.
P. Auto-ignition temperature : Not available.
Q. Decomposition temperature : Not available.
R. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)
   Flow time (ISO 2431) : Not available.
S. Molecular weight : Not applicable.

Heat of combustion : 0.512 kJ/g

Section 10. Stability and reactivity

A. Chemical stability : The product is stable.
   Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
B. Conditions to avoid : No specific data.
C. Incompatible materials : No specific data.
Section 10. Stability and reactivity

D. Hazardous decomposition products

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

Section 11. Toxicological information

A. Information on the likely routes of exposure

Potential acute health effects

Inhalation: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Eye contact: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation: No specific data.
Ingestion: No specific data.
Skin contact: No specific data.
Eye contact: No specific data.

B. Health hazards

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc pyrithione</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>140 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>100 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>177 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>800 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>72 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>ethylene oxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2140 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>145000 ppm</td>
<td>1 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>64000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td>sulfuric acid</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>15800 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>methyl alcohol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5600 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Dioxide</td>
<td>Skin - Mild irritant</td>
<td>Human</td>
<td>-</td>
<td>72 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>300 ug</td>
<td>-</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>500 mg</td>
<td>-</td>
</tr>
<tr>
<td>ethylene oxide</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>6 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18 mg</td>
<td>-</td>
</tr>
<tr>
<td>sulfuric acid</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>250 ug</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.5 minutes</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>5 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100 mg</td>
<td>-</td>
</tr>
<tr>
<td>methyl alcohol</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

Not available.

CMR - ISHA Article 42 Occupational Exposure Limits
Section 11. Toxicological information

### Chronic toxicity

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

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

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

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

**Reproductive toxicity**: No available.

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

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

### Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene oxide</td>
<td>Category 3</td>
<td>-</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td>Methyl alcohol</td>
<td>Category 1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cristobalite, respirable powder</td>
<td>Category 1</td>
<td>inhalation</td>
<td>Respiratory tract</td>
</tr>
<tr>
<td>Zinc pyrithione</td>
<td>Category 1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>Category 1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Aspiration hazard

No available.

### Potential chronic health effects

<table>
<thead>
<tr>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**: 9/15/2023

**Date of previous issue**: 8/7/2023

**Version**: 10.03

**SHW-A4-AP-MOEL-KR**
Section 11. Toxicological information

Not available.

Section 12. Ecological information

A. Ecotoxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Dioxide</td>
<td>Acute LC50 &gt;1000000 µg/l Marine water</td>
<td>Fish - Fundulus heteroclitus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 0.51 µg/l Marine water</td>
<td>Algae - Thalassiosira pseudonana</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 38 µg/l Fresh water</td>
<td>Crustaceans - Ilyocypsis dentifera</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 8.25 ppb Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 2.68 ppb Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic EC10 0.36 µg/l Marine water</td>
<td>Algae - Thallassiosira pseudonana</td>
<td>96 hours</td>
</tr>
<tr>
<td>zinc pyrithione</td>
<td>Chronic NOEC 2.7 ppb Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Acute IC50 1.85 mg/l Marine water</td>
<td>Algae - Skeletonema costatum</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 98 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>Acute LC50 1.1 ppm Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 0.021 ppm Marine water</td>
<td>Algae - Skeletonema costatum</td>
<td>72 hours</td>
</tr>
<tr>
<td>5-Chloro-2-methyl-4-isothiazolin-3-one</td>
<td>Acute EC50 13 ppm Fresh water</td>
<td>Crustaceans - Ceriodaphnia dubia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 0.18 ppm Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 0.19 ppm Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>ethylene oxide</td>
<td>Chronic NOEC 0.1 ppm Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.02 ppm</td>
<td>Fish - Pimephales promelas</td>
<td>36 days</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 490000 µg/l Marine water</td>
<td>Crustaceans - Artemia sp.</td>
<td>48 hours</td>
</tr>
<tr>
<td>sulfuric acid</td>
<td>Acute LC50 137000 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 84000 µg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td>methyl alcohol</td>
<td>Acute LC50 425000 µg/l Marine water</td>
<td>Crustaceans - Pandalus montagui - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 36 ul/L Marine water</td>
<td>Fish - Agonus cataphractus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 16.912 mg/l Marine water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 2500000 µg/l Marine water</td>
<td>Crustaceans - Crangon crangon - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 3289 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 290 mg/l Fresh water</td>
<td>Fish - Danio rerio - Egg</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 9.96 mg/l Marine water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
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</tbody>
</table>

B. Persistence and degradability

Not available.

C. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
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<tbody>
<tr>
<td>zinc pyrithione</td>
<td>-</td>
<td>11</td>
<td>Low</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>-</td>
<td>28960</td>
<td>High</td>
</tr>
<tr>
<td>methyl alcohol</td>
<td>-</td>
<td>&lt;10</td>
<td>Low</td>
</tr>
</tbody>
</table>

D. Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.
Section 12. Ecological information

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

Section 13. Disposal considerations

A. 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.

B. Disposal precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>UN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. UN number</td>
<td>UN3082</td>
<td>UN3082</td>
<td>UN3082</td>
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<tr>
<td>B. UN proper shipping name</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Pyrithione)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Pyrithione)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Pyrithione)</td>
</tr>
<tr>
<td>C. Transport hazard class(es)</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>D. Packing group</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>E. Environmental hazards</td>
<td>Yes.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

Additional information

UN: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Emergency schedules F-A, S-F

IATA: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

F. 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 available.
Section 15. Regulatory information

A. Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture): None of the components are listed.

ISHA article 118 (Harmful substances requiring permission): None of the components are listed.

Article 2 of Youth Protection Act on Substances Hazardous to Youth

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:
- Titanium Dioxide
- Cristobalite, respirable powder
- zinc oxide
- ethylene oxide
- sulfuric acid
- methyl alcohol

ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors):

ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement):

ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up):

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control):

B. Regulation according to Chemicals Control Act

Article 11 (TRI): None of the components are listed.

Article 18 Prohibited (K-Reach Article 27): None of the components are listed.

Article 19 Subject to authorization (K-Reach Article 25): None of the components are listed.

Article 20 Toxic Chemicals (K-Reach Article 20): Not applicable

Article 20 Restricted (K-Reach Article 27): None of the components are listed.

Article 39 (Accident Precaution Chemicals): None of the components are listed.

Date of issue/Date of revision: 9/15/2023  Date of previous issue: 8/7/2023  Version: 10.03 11/13
Section 15. Regulatory information

**Existing Chemical Substances Subject to Registration**: The following components are listed: 2-(2-butoxyethoxy)ethanol, Zinc pyrithione, Zinc oxide, Quartz, 5-Chloro-2-methyl-3(2H)-isothiazolone, mixt. With 2-methyl-3(2H)-isothiazolone, 2-Methyl-4-isothiazolin-3-one, Quartz, 1,2-Benzisothiazol-3(2H)-one, Sodium nitrate, N,N”-1,6-Hexanediyl bis(N'-cyanoguanidine) polymer with 1,6-hexane diamine, hydrochloride, Glutaraldehyde, Oxirane, 1,4-Diethylene dioxide, Sulfuric acid, Methanol

**C. Dangerous Materials Safety Management Act**: Not available.

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

**E. Regulation according to other foreign laws**

**International regulations**

- **Chemical Weapon Convention List Schedules I, II & III Chemicals**: Not listed.
- **Montreal Protocol**: Not listed.
- **Stockholm Convention on Persistent Organic Pollutants**: Not listed.
- **UNECE Aarhus Protocol on POPs and Heavy Metals**: Not listed.

**Inventory list**

- **Australia**: Not determined.
- **Canada**: Not determined.
- **China**: Not determined.
- **Eurasian Economic Union**: **Russian Federation inventory**: Not determined.
- **Japan**: **Japan inventory (CSCL)**: Not determined. **Japan inventory (ISHL)**: Not determined.
- **New Zealand**: Not determined.
- **Philippines**: Not determined.
- **Republic of Korea**: Not determined.
- **Taiwan**: Not determined.
- **Thailand**: Not determined.
- **Turkey**: Not determined.
- **United States**: Not determined.
- **Viet Nam**: Not determined.

Section 16. Other information

**A. References**: Not available.

**B. Date of issue/Date of revision**: 9/15/2023

**C. Version**: 10.03

**D. Other**

- **Date of printing**: 9/15/2023

Indicates information that has changed from previously issued version.
Section 16. Other information

Key to abbreviations
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.