Section 1. Identification

INTERZINC 52 GREY PART A  :  GHS product identifier
EPA142  :  Product code

<table>
<thead>
<tr>
<th>Identified uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional application of coatings and inks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Uses advised against</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Other Uses</td>
<td>Supplier's details</td>
</tr>
</tbody>
</table>

International Farg AB
Holmedalen 3
Aspereds Industriomrade
SE-424 22 Angered
Sweden
Tel: +46 (0) 31 928500  Fax: +46 (0) 31 928530

+46 8 33 12 31  :  Emergency telephone number (with hours of operation)
+966 55 388 0087  :  National advisory body/Poison Centre (For use only by licensed medical professionals.)
sdsfellinguk@akzonobel.com  :  E-mail address of person responsible for this SDS

Section 2. Hazards identification

FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
ACUTE AQUATIC HAZARD - Category 1
LONG-TERM AQUATIC HAZARD - Category 1

GHS label elements

<table>
<thead>
<tr>
<th>Hazard pictograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning</td>
</tr>
</tbody>
</table>
Flammable liquid and vapour.
Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
Very toxic to aquatic life with long lasting effects.

Precautionary statements

Date of issue/Date of revision  :  31/05/2017
Version  :  3.01
Section 2. Hazards identification

**Prevention:**
Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Avoid release to the environment. Avoid breathing vapour. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

**Response:**
Collect spillage. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical 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 attention.

**Storage:**
Store in a well-ventilated place. Keep cool.

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

Wear appropriate respirator when ventilation is inadequate.

None known.

Other hazards which do not result in classification

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Classification</th>
<th>CAS number</th>
<th>% by weight</th>
<th>Ingredient name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute 1, H400</td>
<td>7440-66-6</td>
<td>≥50 - ≤75</td>
<td>Zinc powder - zinc dust (stabilized)</td>
</tr>
<tr>
<td>Aquatic Chronic 1, H410</td>
<td>7440-66-6</td>
<td>≤5</td>
<td></td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>25036-25-3</td>
<td>≤10</td>
<td>Phenol, 4,4’-(1-methylethylidene)bis-, polymer with 2,2’-[1-methylethylidene]bis(4, 1-phenyleneoxymethylene)]bis[oixirane]</td>
</tr>
<tr>
<td>Eye Irrit. 2A, H319</td>
<td>64742-95-6</td>
<td>≤9.5</td>
<td>Solvent naphtha (petroleum), light arom.</td>
</tr>
<tr>
<td>Skin Sens. 1, H317</td>
<td>64742-95-6</td>
<td>≤9.5</td>
<td>Solvent naphtha (petroleum), light arom.</td>
</tr>
<tr>
<td>Flam. Liq. 3, H226</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>STOT SE 3, H335</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>STOT SE 3, H336</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>Asp. Tox. 1, H304</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>Aquatic Chronic 2, H411</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>Flam. Liq. 3, H226</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>Acute Tox. 4, H312</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>Eye Irrit. 2A, H319</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>STOT SE 3, H335</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>Asp. Tox. 1, H304</td>
<td>1330-20-7</td>
<td>≤5</td>
<td>Xylene</td>
</tr>
<tr>
<td>Aquatic Acute 1, H400</td>
<td>1314-13-2</td>
<td>≤5</td>
<td>Zinc oxide</td>
</tr>
<tr>
<td>Aquatic Chronic 1, H410</td>
<td>1314-13-2</td>
<td>≤5</td>
<td>Zinc oxide</td>
</tr>
<tr>
<td>Flam. Liq. 3, H226</td>
<td>71-36-3</td>
<td>≤2.6</td>
<td>Butan-1-ol</td>
</tr>
<tr>
<td>Acute Tox. 4, H302</td>
<td>71-36-3</td>
<td>≤2.6</td>
<td>Butan-1-ol</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>71-36-3</td>
<td>≤2.6</td>
<td>Butan-1-ol</td>
</tr>
<tr>
<td>Eye Dam. 1, H318</td>
<td>71-36-3</td>
<td>≤2.6</td>
<td>Butan-1-ol</td>
</tr>
<tr>
<td>STOT SE 3, H335</td>
<td>71-36-3</td>
<td>≤2.6</td>
<td>Butan-1-ol</td>
</tr>
<tr>
<td>STOT SE 3, H336</td>
<td>71-36-3</td>
<td>≤2.6</td>
<td>Butan-1-ol</td>
</tr>
</tbody>
</table>
Section 3. Composition/information on ingredients

There are no 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

Description of necessary first aid measures

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.

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 adverse health effects persist or are severe. 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.

Skin contact
Wash with plenty of soap and 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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion
Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 if adverse health effects persist or are severe. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact
Causes serious eye irritation.

Inhalation
No known significant effects or critical hazards.

Skin contact
Causes skin irritation. May cause an allergic skin reaction.

Ingestion
Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

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

Inhalation
Adverse symptoms may include the following:
headache
drowsiness/fatigue
dizziness/vertigo
muscle weakness
unconsciousness

Skin contact
Adverse symptoms may include the following:
irritation
redness

Ingestion
No specific data.

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

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Section 4. First aid measures

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

No specific treatment.

No action shall be taken involving any personal risk or without suitable training. 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)

Note to physician:

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments:

No specific treatment.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Use dry chemical, CO₂, water spray (fog) or foam.

Do not use water jet.

Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is very 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.

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

metal oxide/oxides

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.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Environmental precautions

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

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

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

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.

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 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 should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. 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.

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.

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. Eliminate all ignition sources. Vapours are heavier than air and may spread along floors. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Exposure limits</th>
<th>Ingredient name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH TLV (United States, 3/2015). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</td>
<td>xylene</td>
</tr>
<tr>
<td>ACGIH TLV (United States, 3/2015). STEL: 10 mg/m³ 15 minutes. Form: Respirable fraction TWA: 2 mg/m³ 8 hours. Form: Respirable fraction</td>
<td>zinc oxide</td>
</tr>
</tbody>
</table>
# Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>ACGIH TLV (United States, 3/2015)</th>
<th>butan-1-ol</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA: 20 ppm 8 hours.</td>
<td>: Appropriate engineering controls</td>
</tr>
</tbody>
</table>

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

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

**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.

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: chemical splash goggles.

### Skin protection

Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals and micro-organisms. Recommended: Viton® or Nitrile gloves. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment. **NOTICE:** The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

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.

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.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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. Recommended: half-face mask APF4.

### Hand protection

| : Hygiene measures |
| : Eye/face protection |
| : Body protection |
| : Other skin protection |
| : Respiratory protection |
Section 9. Physical and chemical properties

**Appearance**
- Liquid.
- Grey.
- Solvent.
- Not available.
- Not applicable.
- Not available.
- Closed cup: 30°C (86°F)
- Not available.
- Not available.

**Physical and chemical properties**
- **Physical state**: Liquid.
- **Odour**: Not available.
- **Odour threshold**: Not available.
- **Melting point**: Not available.
- **Boiling point**: Not available.
- **Flash point**: Not available.
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not available.
- **Vapour pressure**: Not available.
- **Vapour density**: Not available.
- **Relative density**: Not available.
- **Solubility**: Not available.
- **Partition coefficient: n-octanol/water**: Not available.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Appearance**: Grey.
- **Odour**: Not available.
- **pH**: Not available.
- **Evaporation rate**: Not available.
- **Auto-ignition temperature**: Not available.
- **Viscosity**: Kinematic (room temperature): 188 mm²/s (188 cSt)

Section 10. Stability and reactivity

**Hazardous decomposition products**
- Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

**Incompatible materials**
- Reactive or incompatible with the following materials: oxidizing materials

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

Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Dose</th>
<th>Species</th>
<th>Result</th>
<th>Product/ingredient name</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>8400 mg/kg</td>
<td>Rat</td>
<td>LD50 Oral</td>
<td>Solvent naphtha (petroleum), light arom.</td>
</tr>
<tr>
<td>-</td>
<td>4300 mg/kg</td>
<td>Rat</td>
<td>LD50 Oral</td>
<td>xylene</td>
</tr>
<tr>
<td>4 hours</td>
<td>24 mg/l</td>
<td>Rat</td>
<td>LC50 Inhalation Vapour</td>
<td>butan-1-ol</td>
</tr>
<tr>
<td>-</td>
<td>3400 mg/kg</td>
<td>Rabbit</td>
<td>LD50 Dermal</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>790 mg/kg</td>
<td>Rat</td>
<td>LD50 Oral</td>
<td></td>
</tr>
</tbody>
</table>

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Section 11. Toxicological information

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Observation</th>
<th>Exposure</th>
<th>Score</th>
<th>Species</th>
<th>Result</th>
<th>Product/ingredient name</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>24 hours 100 microliters</td>
<td>-</td>
<td>Rabbit</td>
<td>Eyes - Mild irritant</td>
<td>Solvent naphtha (petroleum), light arom. zinc oxide</td>
</tr>
<tr>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
<td>Rabbit</td>
<td>Eyes - Mild irritant</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
<td>Rabbit</td>
<td>Skin - Mild irritant</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>24 hours 2 milligrams</td>
<td>-</td>
<td>Rabbit</td>
<td>Eyes - Severe irritant</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>0.005 Milliliters</td>
<td>-</td>
<td>Rabbit</td>
<td>Eyes - Severe irritant</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>24 hours 20 milligrams</td>
<td>-</td>
<td>Rabbit</td>
<td>Skin - Moderate irritant</td>
<td></td>
</tr>
</tbody>
</table>

Sensitisation
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Teratogenicity
Not available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Target organs</th>
<th>Route of exposure</th>
<th>Category</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory tract irritation and Narcotic effects</td>
<td>Not applicable.</td>
<td>Category 3</td>
<td>Solvent naphtha (petroleum), light arom.</td>
</tr>
<tr>
<td>Respiratory tract irritation</td>
<td>Not applicable.</td>
<td>Category 3</td>
<td>xylene</td>
</tr>
<tr>
<td>Respiratory tract irritation and Narcotic effects</td>
<td>Not applicable.</td>
<td>Category 3</td>
<td>butan-1-ol</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard

<table>
<thead>
<tr>
<th>Result</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASPIRATION HAZARD - Category 1</td>
<td>Solvent naphtha (petroleum), light arom.</td>
</tr>
<tr>
<td>ASPIRATION HAZARD - Category 1</td>
<td>xylene</td>
</tr>
</tbody>
</table>

Potential acute health effects

Causes serious eye irritation.
No known significant effects or critical hazards.
Causes skin irritation. May cause an allergic skin reaction.
Irritating to mouth, throat and stomach.

Eye contact
Inhalation
Skin contact
Ingestion

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Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Adverse symptoms may include the following:
- Headache
- Drowsiness/fatigue
- Dizziness/vertigo
- Muscle weakness
- Unconsciousness

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

General:
No known significant effects or critical hazards.

Carcinogenicity:
No known significant effects or critical hazards.

Mutagenicity:
No known significant effects or critical hazards.

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

Fertility effects:
No known significant effects or critical hazards.

Symptoms related to eye contact:
Adverse symptoms may include the following:
- Pain or irritation
- Redness

Symptoms related to ingestion:
Adverse symptoms may include the following:
- Headache
- Drowsiness/fatigue
- Dizziness/vertigo
- Muscle weakness
- Unconsciousness

Symptoms related to inhalation:
Adverse symptoms may include the following:
- Irritation
- Redness

No specific data.

Symptoms related to skin contact:
Adverse symptoms may include the following:
- Pain or irritation
- Watering
- Redness

Potential chronic health effects

Not available.

Potential chronic health effects

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

General:
No known significant effects or critical hazards.

Carcinogenicity:
No known significant effects or critical hazards.

Mutagenicity:
No known significant effects or critical hazards.

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

Fertility effects:
No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>ATE value</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>54465.6 mg/kg</td>
<td>Oral</td>
</tr>
<tr>
<td>25220.4 mg/kg</td>
<td>Dermal</td>
</tr>
<tr>
<td>252.2 mg/l</td>
<td>Inhalation (vapours)</td>
</tr>
</tbody>
</table>
## Section 12. Ecological information

### Toxicity

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Species</th>
<th>Result</th>
<th>Product/ingredient name</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 hours</td>
<td>Algae - Ulva pertusa</td>
<td>Acute EC50 0.572 mg/l Marine water</td>
<td>Zinc powder - zinc dust (stabilized)</td>
</tr>
<tr>
<td>48 hours</td>
<td>Daphnia - Daphnia magna</td>
<td>Acute EC50 356 μg/l Fresh water</td>
<td></td>
</tr>
<tr>
<td>96 hours</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>Acute LC50 0.24 mg/l Fresh water</td>
<td></td>
</tr>
<tr>
<td>72 hours</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>Chronic NOEC 72.9 μg/l Fresh water</td>
<td></td>
</tr>
<tr>
<td>3 days</td>
<td>Aquatic plants - Ceratophyllum demersum</td>
<td>Chronic NOEC 9 mg/l Fresh water</td>
<td></td>
</tr>
<tr>
<td>21 days</td>
<td>Crustaceans - Palaemon elegans</td>
<td>Chronic NOEC 178 μg/l Marine water</td>
<td></td>
</tr>
<tr>
<td>4 weeks</td>
<td>Fish - Cyprinus carpio</td>
<td>Chronic NOEC 2.6 μg/l Fresh water</td>
<td></td>
</tr>
<tr>
<td>48 hours</td>
<td>Daphnia</td>
<td>Acute EC50 6.14 mg/m³</td>
<td></td>
</tr>
<tr>
<td>96 hours</td>
<td>Fish - Mykiss</td>
<td>Acute LC50 9.22 mg/m³</td>
<td></td>
</tr>
<tr>
<td>48 hours</td>
<td>Crustaceans - Palaemonetes pugio</td>
<td>Acute LC50 8500 μg/l Marine water</td>
<td>xylene</td>
</tr>
<tr>
<td>96 hours</td>
<td>Fish - Pimephales promelas</td>
<td>Acute LC50 13400 μg/l Fresh water</td>
<td></td>
</tr>
<tr>
<td>72 hours</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>Acute EC50 0.042 mg/l Fresh water</td>
<td>zinc oxide</td>
</tr>
<tr>
<td>48 hours</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>Acute EC50 1 mg/l Fresh water</td>
<td></td>
</tr>
<tr>
<td>72 hours</td>
<td>Algae - Selenastrum capricornutum</td>
<td>Acute IC50 0.17 mg/l</td>
<td></td>
</tr>
<tr>
<td>96 hours</td>
<td>Fish - Oncorhynchus Mykiss</td>
<td>Acute LC50 1.1 mg/l</td>
<td></td>
</tr>
<tr>
<td>72 hours</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>Chronic NOEC 0.017 mg/l Fresh water</td>
<td></td>
</tr>
<tr>
<td>48 hours</td>
<td>Daphnia - Daphnia magna</td>
<td>Acute EC50 1983 to 2072 mg/l Fresh water</td>
<td>butan-1-ol</td>
</tr>
<tr>
<td>96 hours</td>
<td>Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>Acute LC50 1910 mg/l Fresh water</td>
<td></td>
</tr>
</tbody>
</table>

### Persistence and degradability

<table>
<thead>
<tr>
<th>Biodegradability</th>
<th>Photolysis</th>
<th>Aquatic half-life</th>
<th>Product/ingredient name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not readily</td>
<td>-</td>
<td>-</td>
<td>zinc oxide</td>
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</tbody>
</table>

### Bioaccumulative potential

<table>
<thead>
<tr>
<th>Potential</th>
<th>BCF</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>Product/ingredient name</th>
</tr>
</thead>
<tbody>
<tr>
<td>low</td>
<td>8.1 to 25.9</td>
<td>3.12</td>
<td>xylene</td>
</tr>
<tr>
<td>high</td>
<td>60960</td>
<td>-</td>
<td>zinc oxide</td>
</tr>
<tr>
<td>low</td>
<td>-</td>
<td>1</td>
<td>butan-1-ol</td>
</tr>
</tbody>
</table>

### Mobility in soil

Not available.

: Soil/water partition coefficient (K<sub>oc</sub>)

No known significant effects or critical hazards.

: Other adverse effects
Section 13. Disposal considerations

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

Disposal methods

Section 14. Transport information

<table>
<thead>
<tr>
<th>IATA</th>
<th>IMDG</th>
<th>UN</th>
<th>UN number</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
<td>UN number</td>
</tr>
<tr>
<td>PAINT</td>
<td>PAINT. Marine pollutant (Zinc powder - zinc dust (stabilized), Solvent naphtha (petroleum), light arom.)</td>
<td>PAINT</td>
<td>UN proper shipping name</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Hazard class(es)</th>
<th>Transport hazard class(es)</th>
<th>Packing group</th>
<th>Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>III</td>
<td>Yes. No.</td>
</tr>
</tbody>
</table>

The environmentally hazardous substance mark may appear if required by other transportation regulations. The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Additional information:

IMDG Code Segregation group

Not applicable.

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.

Not available.

Transport in bulk according to Annex II of Marpol and the IBC Code
Section 15. Regulatory information

No known specific national and/or regional regulations applicable to this product (including its ingredients).

Section 16. Other information

### Justification

<table>
<thead>
<tr>
<th>Justification</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>On basis of test data</td>
<td>Flam. Liq. 3, H226</td>
</tr>
<tr>
<td>Calculation method</td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td>Calculation method</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td>Calculation method</td>
<td>Skin Sens. 1, H317</td>
</tr>
<tr>
<td>Calculation method</td>
<td>Aquatic Acute 1, H400</td>
</tr>
<tr>
<td>Calculation method</td>
<td>Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

### History

- **31/05/2017**: Date of printing
- **31/05/2017**: Date of issue/Date of revision
- **30/05/2017**: Date of previous issue
- **3.01**: Version
- **Not available.**: Key to abbreviations

Indicates information that has changed from previously issued version.

### Notice to reader

**IMPORTANT NOTE**: the information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user’s responsibility to verify that this data sheet is current prior to using the product to which it relates.

Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

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## Section 16. Other information