SAFETY DATA SHEET

Intertherm 228HS Grey Part A

Section 1. Chemical product and company identification

A. Product name : Intertherm 228HS Grey Part A
   Product code : HTA541

B. Relevant identified uses of the substance or mixture and uses advised against

<table>
<thead>
<tr>
<th>Identified uses</th>
<th>Uses advised against</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional application of coatings and inks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Other Uses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C. Manufacturer : International Farg AB
                  Holmedalen 3
                  Aspereds Industriomrade
                  SE-424 22 Angered
                  Sweden

   Emergency telephone number (with hours of operation) : +46 8 33 12 31
   e-mail address of person responsible for this SDS : sdsfellinguk@akzonobel.com

Section 2. Hazards identification

A. Hazard classification
   FLAMMABLE LIQUIDS - Category 3
   SKIN CORROSION/IRRITATION - Category 2
   SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
   SKIN SENSITIZATION - Category 1
   CARCINOGENICITY - Category 2
   SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
   LONG-TERM AQUATIC HAZARD - Category 3

B. GHS label elements, including precautionary statements

   Symbol
   Signal word : Danger
   Hazard statements
   Flammable liquid and vapour.
   Causes serious eye damage.
   Causes skin irritation.
   May cause an allergic skin reaction.
   Suspected of causing cancer.
   May cause damage to organs through prolonged or repeated exposure.
   Harmful to aquatic life with long lasting effects.

Date of issue/Date of revision : 01/06/2017
Version : 3
Section 2. Hazards identification

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. 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. Do not breathe vapour. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. 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. 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. Immediately call a POISON CENTER or physician.

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

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

Supplemental label elements: Wear appropriate respirator when ventilation is inadequate.

C. Other hazards which do not result in classification: None known.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Common name</th>
<th>CAS number</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol, polymer with formaldehyde, glycidyl ether</td>
<td>phenol, polymer with formaldehyde, glycidyl ether</td>
<td>28064-14-4</td>
<td>≥10 - &lt;20</td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2, H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Sens. 1, H317</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>≥10 - &lt;15</td>
<td>Carc. 2, H351</td>
</tr>
<tr>
<td>Talc, not containing asbestos form</td>
<td>Talc (non-asbestos form)</td>
<td>14807-96-6</td>
<td>≥5 - &lt;10</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Xylene</td>
<td>xylene</td>
<td>1330-20-7</td>
<td>≥5 - &lt;10</td>
<td>Flamm. Liq. 3, H226</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4, H312</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4, H332</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2, H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H336</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT RE 1, H372</td>
</tr>
<tr>
<td>Butan-1-ol</td>
<td>butan-1-ol</td>
<td>71-36-3</td>
<td>≥1 - &lt;5</td>
<td>Flamm. Liq. 3, H226</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4, H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</td>
</tr>
</tbody>
</table>
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Formula</th>
<th>UN Number</th>
<th>Concentration</th>
<th>H &amp; STOT Codes</th>
</tr>
</thead>
</table>
| 1-methoxy-2-propanol  | 1-methoxy-2-propanol | 107-98-2   | <10           | Flam. Liq. 3, H226  
                      |                 |           |               | STOT SE 3, H336    |
| ethylbenzene          | ethylbenzene    | 100-41-4  | ≥0.1 - <5     | Flam. Liq. 3, H226  
                      |                 |           |               | Acute Tox. 4, H332  
                      |                 |           |               | Skin Irrit. 2, H315  
                      |                 |           |               | Eye Irrit. 2, H319    
                      |                 |           |               | Carc. 2, H351        
                      |                 |           |               | STOT SE 3, H335        
                      |                 |           |               | STOT RE 2, H373 (hearing organs)  
                      |                 |           |               | Asp. Tox. 1, H304     |
| triiron tetraoxide    | iron oxide (Fe3O4) | 1317-61-9 | ≥1 - <5       | Not classified.     |

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

A. Eye contact

Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.

B. Skin contact

Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

C. Inhalation

Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. 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.

D. Ingestion

Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. 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.
Section 4. First aid measures

**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. Firefighting measures

A. **Extinguishing media**
   - Suitable extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.
   - Unsuitable extinguishing media: Do not use water jet.

B. **Specific hazards arising from the chemical**
   - 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 harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
   - Decomposition products may include the following materials:
     - carbon dioxide
     - carbon monoxide
     - sulfur oxides
     - metal oxide/oxides

C. **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.
   - 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.

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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

B. **Environmental precautions**
   - 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.

C. **Methods and material for containment and cleaning up**
   - Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Section 6. Accidental release measures

Large spill: 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

A. Precautions for safe handling

Protective measures: 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. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour 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. Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flatting should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

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 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. 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

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 Labor (Republic of Korea, 8/2013).</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m³ 8 hours. Form: total dust with less than 1% of free SiO2</td>
</tr>
<tr>
<td>Talc, not containing asbestiform fibres</td>
<td>Ministry of Labor (Republic of Korea, 8/2013).</td>
</tr>
<tr>
<td></td>
<td>TWA: 2 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 01/06/2017
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## Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA: 6 mg/m³ 8 hours. Form: total fiber (fiber size less than 5 μm)</th>
<th>Ministry of Labor (Republic of Korea, 8/2013).</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td>STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</td>
<td></td>
</tr>
<tr>
<td>butan-1-ol</td>
<td>STEL: 540 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 360 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</td>
<td></td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</td>
<td></td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</td>
<td></td>
</tr>
</tbody>
</table>

### B. Appropriate engineering controls

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

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### C. Personal protective equipment

#### Respiratory protection

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.

#### 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

#### Hand 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/
Section 8. Exposure controls/personal protection

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.

**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.

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and chemical properties

A. **Appearance**

   Physical state : Liquid.
   Colour : Grey.

B. **Odour**

   Solvent.

C. **Odour threshold**

   Not available.

D. **pH**

   Not applicable.

E. **Melting/freezing point**

   Not available.

F. **Boiling point**

   Boiling range : Not available.

G. **Flash point**

   Closed cup: 28°C (82.4°F)
   Fire point : Not available.

H. **Evaporation rate**

   Not available.

I. **Flammability (solid, gas)**

   Not available.

J. **Lower and upper explosive (flammable) limits**

   Greatest known range: Lower: 0.8% Upper: 6.7% (xylene)

K. **Vapour pressure**

   Not available.

L. **Solubility**

   Insoluble in the following materials: cold water.

M. **Vapour density**

   Not available.

N. **Relative density**

   2.02

O. **Partition coefficient: n-octanol/water**

   Not available.

P. **Auto-ignition temperature**

   Not available.

Q. ** Decomposition temperature**

   Not available.

R. **Viscosity**

   Kinematic (room temperature): 96 mm²/s (96 cSt)

S. **Molecular weight**

   Not applicable.
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
   : 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.

C. Incompatible materials
   : Reactive or incompatible with the following materials:
     oxidizing materials

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 likely routes of exposure
   : Not available.

Potential acute health effects
   Inhalation
   : May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system.
   Ingestion
   : Irritating to mouth, throat and stomach.
   Skin contact
   : Causes skin irritation. May cause an allergic skin reaction.
   Eye contact
   : Causes serious eye damage.

Over-exposure signs/symptoms
   Inhalation
   : Adverse symptoms may include the following:
     headache
     drowsiness/fatigue
     dizziness/vertigo
     muscle weakness
     unconsciousness
   Ingestion
   : Adverse symptoms may include the following:
     stomach pains
   Skin contact
   : Adverse symptoms may include the following:
     pain or irritation
     redness
     blistering may occur
   Eye contact
   : Adverse symptoms may include the following:
     pain
     watering
     redness

B. Health hazards
   Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4300 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>butan-1-ol</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>24 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>3400 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>790 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>13 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>6600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>LC50 Inhalation Gas.</td>
<td>Rabbit</td>
<td>4000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>17800 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3500 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>
# Section 11. Toxicological information

## 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 300 Micrograms</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Intermittent</td>
<td></td>
</tr>
<tr>
<td>Talc, not containing asbestiform fibres</td>
<td>Skin - Mild irritant</td>
<td>Human</td>
<td></td>
<td>72 hours 300 Micrograms</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Intermittent</td>
<td></td>
</tr>
<tr>
<td>butan-1-ol</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td></td>
<td>24 hours 2 milligrams</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.005 Milliliters</td>
<td></td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td></td>
<td>24 hours 24 milligrams</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>500 milligrams</td>
<td></td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td></td>
<td>24 hours 500 milligrams</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>500 milligrams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td></td>
<td>24 hours 15 milligrams</td>
<td></td>
</tr>
</tbody>
</table>

## Sensitisation

Not available.

## CMR - ISHA Article 42 Public Notice No 2013-38 Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>CAS number</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>Carc. 2</td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>100-41-4</td>
<td>Carc. 2</td>
</tr>
</tbody>
</table>

## Mutagenicity

Not available.

## Carcinogenicity

Not available.

## Reproductive toxicity

Not available.

## Teratogenicity

Not available.

## 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>xylene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td>butan-1-ol</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation and Narcotic effects</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

## Specific target organ toxicity (repeated exposure)
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylenne</td>
<td>Category 1</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Category 2</td>
<td>Not determined</td>
<td>hearing organs</td>
</tr>
</tbody>
</table>

Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

Potential chronic health effects

Chronic toxicity

Not available.

General: May cause damage to organs through prolonged or repeated exposure. 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.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

ATE value

<table>
<thead>
<tr>
<th>Route</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>13370 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>14138 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapours)</td>
<td>138.3 mg/l</td>
</tr>
</tbody>
</table>

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>xylene</td>
<td>Acute LC50 8500 μg/l Marine water</td>
<td>Crustaceans - Palaemonetes pugio</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 13400 μg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 1983 to 2072 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td>butan-1-ol</td>
<td>Acute LC50 1910 mg/l Fresh water</td>
<td>Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>96 hours</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Acute EC50 3.6 mg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 18.4 to 25.4 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5.1 to 5.7 mg/l Marine water</td>
<td>Fish - Menidia menidia</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

B. Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

C. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>-</td>
<td>352</td>
<td>low</td>
</tr>
<tr>
<td>xylene</td>
<td>3.12</td>
<td>8.1 to 25.9</td>
<td>low</td>
</tr>
<tr>
<td>butan-1-ol</td>
<td>1</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>&lt;1</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>3.6</td>
<td>15</td>
<td>low</td>
</tr>
</tbody>
</table>

D. Mobility in soil

- Soil/water partition coefficient (K<sub>oc</sub>): Not available.

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 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.

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. 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 spilt 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>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
</tr>
<tr>
<td>B. UN proper shipping name</td>
<td>PAINT</td>
<td>PAINT</td>
<td>PAINT</td>
</tr>
<tr>
<td>C. Transport hazard class(es)</td>
<td>3</td>
<td>3</td>
<td>3</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>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>F. Additional information</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

IMDG Code Segregation group: Not applicable.

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Version: 3
Section 14. Transport information

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.

Section 15. Regulatory information

A. Regulation according to ISHA

ISHA article 37 (Harmful substances prohibited from manufacture) : The following components are listed: Talc

ISHA article 38 (Harmful substances requiring permission) : None of the components are listed.

Article 2 of Youth Protection Act on Substances Hazardous to Youth : Not applicable.

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:
- titanium dioxide
- Talc, not containing asbestiform fibres
- Xylene
- butan-1-ol
- 1-methoxy-2-propanol
- ethylbenzene

ISHA Enforcement Regs Annex 11-3 (Exposure standards established for harmful factors) : None of the components are listed.

ISHA Enforcement Regs Annex 11-4 (Harmful factors subject to Work Environment Measurement) : The following components are listed: Titanium dioxide; Talc, non-asbestos form; Xylene, o,m,p-isomers; Ethylbenzene; n-Butyl alcohol; Iron oxide

ISHA Enforcement Regs Annex 12-2 (Harmful Factors Subject to Special Health Check-up) : The following components are listed: Xylene; Ethylbenzene; n-Butyl alcohol; Iron and its compounds

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) : The following components are listed: Titanium dioxide; Xylene; Ethyl benzene; n-Butyl alcohol; Iron and its compounds

B. Regulation according to Chemicals Control Act

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

K-Reach Article 27 (Prohibited) : The following components are listed: Talc

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

CSCA Article 11 (TRI) : The following components are listed: Barium and its compounds; Xylene; Ethylbenzene

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Section 15. Regulatory information

Korea inventory: All components are listed or exempted.
CSCA Article 39 (Accident Precaution Chemicals): None of the components are listed.

C. Dangerous Materials Safety Management Act

Class: Class 4 - Flammable Liquid
Item: 4. Class 2 petroleums - Water-insoluble liquid
Threshold: 1000 L
Danger category: III
Signal word: Contact with sources of ignition prohibited

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

Europe inventory: Not determined.
United States inventory (TSCA 8b): All components are listed or exempted.

Japan inventory
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.

Section 16. Other information

A. References: Not available.

B. Date of issue/Date of revision: 01/06/2017

C. Version: 3
Date of printing: 01/06/2017

D. Other

⚠️ Indicates information that has changed from previously issued version.

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
UN = United Nations

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

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