## SAFETY DATA SHEET



#### Jotatemp 540 Zinc Comp A

#### Section 1. Identification : 无机共聚物富锌耐高温漆540 组份A **GHS** product identifier 36842 **Product code** 5 : Not available. Other means of identification **Product type** : Liquid. **Product description** : Paint. Relevant identified uses of the substance or mixture and uses advised against Use in coatings - Industrial use Use in coatings - Professional use **Supplier's details** : 佐敦涂料(张家港)有限公司 江苏省张家港保税区扬子江化学工业园长江路15号 215634 电话: +86 512 58937988 传真:+86 512 58937986 Jotun Coatings (Zhangjiagang) Co. Ltd No.15 Changjiang Road Jiangsu Yangtze River International Chemical Industry Park, Zhangjiagang Free Trade Zone, Jiangsu Province 215634 Tel: +86 512 58937988 Fax: +86 512 58937986 Jotun Paints (Malaysia) Sdn Bhd, Lot 7 Persiaran Perusahaan, Section 23 40300 SHAH ALAM, Selangor Darul Ehsan Malaysia Tel: +603 51235500 Fax: +603 51235599 SDSJotun@jotun.com : Jotun Coatings (Taiwan) Ltd. Co. Tel: +886 2 87705061 **Emergency telephone** number (with hours of operation)

## Section 2. Hazards identification

| Classification of the substance or mixture | : FLAMMABLE LIQUIDS - Category 2<br>SKIN CORROSION/IRRITATION - Category 3<br>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
|                                            | AQUATIC TOXICITY (ACUTE) - Category 3                                                                                         |
|                                            | AQUATIC TOXICITY (CHRONIC) - Category 3                                                                                       |

#### **GHS label elements**

## Section 2. Hazards identification

| Hazard pictograms          |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal word                | : Danger.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Hazard statements          | <ul> <li>H225 - Highly flammable liquid and vapour.</li> <li>H316 - Causes mild skin irritation.</li> <li>H319 - Causes serious eye irritation.</li> <li>H412 - Harmful to aquatic life with long lasting effects.</li> </ul>                                                                                                                                                                                                                                |
| Precautionary statements   |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Prevention                 | <ul> <li>P280 - Wear eye or face protection.</li> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>P241 - Use explosion-proof electrical, ventilating or lighting equipment.</li> <li>P242 - Use non-sparking tools.</li> <li>P243 - Take action to prevent static discharges.</li> <li>P233 - Keep container tightly closed.</li> <li>P273 - Avoid release to the environment.</li> </ul> |
| Response                   | <ul> <li>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.<br/>Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337 + P313 - If eye irritation persists: Get medical advice or attention.</li> </ul>                                                                                                                                                                                            |
| Storage                    | : P403 + P235 - Store in a well-ventilated place. Keep cool.                                                                                                                                                                                                                                                                                                                                                                                                 |
| Disposal                   | : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.                                                                                                                                                                                                                                                                                                                                   |
| Other hazards which do not | · None known                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

Other hazards which do not : None known.

result in classification

## Section 3. Composition/information on ingredients

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

| Product name        | % (w/w)        | CAS number         | Туре    |
|---------------------|----------------|--------------------|---------|
| ethanol             | ≥10 - ≤25      | 64-17-5            | [1] [2] |
| 2-butoxyethanol     | <10            | 111-76-2           | [1] [2] |
| tetraethyl silicate | ≤5             | 78-10-4            | [1]     |
| propan-2-ol         | ≤5             | 67-63-0            | [1] [2] |
| zinc chloride       | <1             | 7646-85-7          | [1] [2] |
| 物品名稱                | % (w/w)        | 化學文摘社登記號碼(CAS No.) | 類型      |
| 乙醇                  | ≥10 - ≤25      | 64-17-5            | [1] [2] |
| 乙二醇丁醚               | <10            | 111-76-2           | [1] [2] |
| 四乙氧基硅烷              | ≤ <sup>5</sup> | 78-10-4            | [1]     |
| 異丙醇                 | ≤ <sup>5</sup> | 67-63-0            | [1] [2] |
| 氯化鋅                 | <1             | 7646-85-7          | [1] [2] |

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.

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## Section 3. Composition/information on ingredients

#### **Type**

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. Wash clothing before reuse. Clean shoes thoroughly before reuse. Ingestion Wash out mouth with water. Remove dentures if any. If material has been 5 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

as a collar, tie, belt or waistband.

#### Most important symptoms/effects, acute and delayed

| most important symptoms/                                                             | <u>cets, acute and delayed</u>                                                                                                                                            |    |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Potential acute health effe                                                          | <u>è</u>                                                                                                                                                                  |    |
| Eye contact                                                                          | : Causes serious eye irritation.                                                                                                                                          |    |
| Inhalation                                                                           | : No known significant effects or critical hazards.                                                                                                                       |    |
| Skin contact                                                                         | : Causes mild skin irritation.                                                                                                                                            |    |
| Ingestion                                                                            | : No known significant effects or critical hazards.                                                                                                                       |    |
| <u>Over-exposure signs/sym</u>                                                       | <u>oms</u>                                                                                                                                                                |    |
| Eye contact                                                                          | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness                                                                                |    |
| Inhalation                                                                           | : No specific data.                                                                                                                                                       |    |
| Skin contact                                                                         | : Adverse symptoms may include the following:<br>irritation<br>redness                                                                                                    |    |
| Ingestion                                                                            | : No specific data.                                                                                                                                                       |    |
| Indication of immediate medical attention and special treatment needed, if necessary |                                                                                                                                                                           |    |
| 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation | ۱. |

| Date o | f issue/ | Date of | revision |
|--------|----------|---------|----------|
|        |          |         |          |

medical attention immediately. Maintain an open airway. Loosen tight clothing such

## Section 4. First aid measures

See toxicological information (Section 11)

### Section 5. Firefighting measures

| Extinguishing media                            |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media                   | : Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.                                                                                                                                                                                                                                                                                                                                                              |
| Unsuitable extinguishing media                 | : Do not use water jet.                                                                                                                                                                                                                                                                                                                                                                                                       |
| Specific hazards arising from the chemical     | : Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is 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. |
| Hazardous thermal decomposition products       | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>metal oxide/oxides                                                                                                                                                                                                                                                                                                      |
| Special protective actions for fire-fighters   | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.                                                                                                          |
| Special protective equipment for fire-fighters | <ul> <li>Fire-fighters should wear appropriate protective equipment and self-contained<br/>breathing apparatus (SCBA) with a full face-piece operated in positive pressure<br/>mode.</li> </ul>                                                                                                                                                                                                                               |

## Section 6. Accidental release measures

| Personal precautions,<br>protective equipment and<br>emergency procedures | : No action shall be taken involving any personal risk or without suitable training.<br>Evacuate surrounding areas. Keep unnecessary and unprotected personnel from<br>entering. Do not touch or walk through spilt material. Shut off all ignition sources.<br>No flares, smoking or flames in hazard area. Avoid breathing vapour or mist.<br>Provide adequate ventilation. Wear appropriate respirator when ventilation is<br>inadequate. Put on appropriate personal protective equipment. |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental precautions                                                 | : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains                                                                                                                                                                                                                                                                                                                                                                                                        |

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.

| 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.                                                                                                                                                                                                                                                                                                                                                                                           |  |
| 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 spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |  |

## Section 7. Handling and storage

| Precautions for safe handling                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective measures                                                | : Put on appropriate personal protective equipment (see Section 8). Do not ingest.<br>Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid<br>release to the environment. Use only with adequate ventilation. Wear appropriate<br>respirator when ventilation is inadequate. Do not enter storage areas and confined<br>spaces unless adequately ventilated. Keep in the original container or an approved<br>alternative made from a compatible material, kept tightly closed when not in use.<br>Store and use away from heat, sparks, open flame or any other ignition source. Use<br>explosion-proof electrical (ventilating, lighting and material handling) equipment.<br>Use only non-sparking tools. Take precautionary measures against electrostatic<br>discharges. Empty containers retain product residue and can be hazardous. Do not<br>reuse container. |
| Advice on general<br>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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Conditions for safe storage,<br>including any<br>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. Eliminate all ignition sources. Separate from oxidising 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. See Section 10 for incompatible materials before handling or use.                                                                                                                                                                                                                       |

## Section 8. Exposure controls/personal protection

#### **Control parameters**

#### **Occupational exposure limits**

| Ingredient name | Exposure limits                                                                                                                                                                                                                                                                          |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ethanol         | TW Minstry of Labor, labor permissible<br>workplace exposure standards, allowable<br>concentration (Taiwan, 3/2018).<br>STEL: 1880 mg/m <sup>3</sup> 15 minutes.<br>STEL: 1000 ppm 15 minutes.<br>TWA: 1880 mg/m <sup>3</sup> 8 hours.<br>TWA: 1000 ppm 8 hours.                         |
| 2-butoxyethanol | TW Minstry of Labor, labor permissible<br>workplace exposure standards, allowable<br>concentration (Taiwan, 3/2018). Absorbed<br>through skin.<br>STEL: 37.5 ppm 15 minutes.<br>STEL: 181.5 mg/m <sup>3</sup> 15 minutes.<br>TWA: 25 ppm 8 hours.<br>TWA: 121 mg/m <sup>3</sup> 8 hours. |
| propan-2-ol     | TW Minstry of Labor, labor permissible<br>workplace exposure standards, allowable<br>concentration (Taiwan, 3/2018).<br>STEL: 500 ppm 15 minutes.<br>STEL: 1228.75 mg/m <sup>3</sup> 15 minutes.<br>TWA: 400 ppm 8 hours.<br>TWA: 983 mg/m <sup>3</sup> 8 hours.                         |
| zinc chloride   | TW Minstry of Labor, labor permissible<br>workplace exposure standards, allowable<br>concentration (Taiwan, 3/2018).<br>STEL: 2 mg/m <sup>3</sup> 15 minutes. Form: Fume<br>TWA: 1 mg/m <sup>3</sup> 8 hours. Form: Fume                                                                 |

## Section 8. Exposure controls/personal protection

| Biological exposure indices      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No exposure indices known.       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Individual protection measure    | <u>95</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Hand protection                  | <ul> <li>There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.<br/>The breakthrough time must be greater than the end use time of the product.<br/>The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.<br/>Gloves should be replaced regularly and if there is any sign of damage to the glove material.<br/>Always ensure that gloves are free from defects and that they are stored and used correctly.<br/>The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.<br/>Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.<br/>Wear suitable gloves tested to ISO 374-1:2016.<br/>Recommended, gloves(breakthrough time) &gt; 8 hours: butyl rubber (&gt; 0.4 mm), Viton® (&gt; 0.7 mm), 4H/Silver Shield® (&gt; 0.07 mm)<br/>May be used, gloves(breakthrough time) 4 - 8 hours: nitrile rubber (&gt; 0.75 mm), neoprene (&gt; 0.35 mm), Teflon (&gt; 0.35 mm)<br/>Not recommended, gloves(breakthrough time) &lt; 1 hour: PVC (&gt; 0.5 mm), polyvinyl alcohol (PVA) (&gt; 0.3 mm)</li> </ul> |
|                                  | For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.<br>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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Eye protection                   | : Safety eyewear complying to ISO 16321-1:2022 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Body protection                  | : Use chemical-resistant protective suit / disposable overall.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                  | Personal protective equipment for the body should be selected based on the task<br>being performed and the risks involved and should be approved by a specialist<br>before handling this product. When there is a risk of ignition from static electricity,<br>wear anti-static protective clothing. For the greatest protection from static<br>discharges, clothing should include anti-static overalls, boots and gloves.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Other skin protection            | : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Hygiene measures                 | : Wash hands, forearms and face thoroughly after handling chemical products, before<br>eating, smoking and using the lavatory and at the end of the working period.<br>Appropriate techniques should be used to remove potentially contaminated clothing.<br>Wash contaminated clothing before reusing. Ensure that eyewash stations and<br>safety showers are close to the workstation location.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

# Section 9. Physical and chemical properties and safety characteristics

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

#### **Appearance**

| Physical state                                          | : | Liquid.                                                            |
|---------------------------------------------------------|---|--------------------------------------------------------------------|
| Colour                                                  | : | Blue.                                                              |
| Odour                                                   | : | Characteristic.                                                    |
| Odour threshold                                         | : | Not available.                                                     |
| рН                                                      | : | Not applicable.                                                    |
| Melting point/freezing point                            | : | Not applicable.                                                    |
| Boiling point, initial boiling point, and boiling range | : | >36°C (>96.8°F)                                                    |
| Flash point                                             | : | Closed cup: 19°C (66.2°F)                                          |
| Flammability                                            | : | Not available.                                                     |
| Lower and upper explosion limit/flammability limit      | : | Greatest known range: Lower: 1.3% Upper: 23% (tetraethyl silicate) |

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#### Vapour pressure

|                                                                        | Vapour Pressure at 20°C |           | Va             | apour pres | sure at 50°C |        |
|------------------------------------------------------------------------|-------------------------|-----------|----------------|------------|--------------|--------|
| Ingredient name                                                        | mm Hg                   | kPa       | Method         | mm Hg      | kPa          | Method |
| ethanol                                                                | 42.94865                | 5.7       |                |            |              |        |
| propan-2-ol                                                            | 33.00268                | 4.4       |                |            |              |        |
| water                                                                  | 17.5                    | 2.3       |                |            |              |        |
| 2-methylpropan-1-ol                                                    | <12.00102               | <1.6      | DIN EN 13016-2 |            |              |        |
| ethylbenzene                                                           | 9.30076                 | 1.2       |                |            |              |        |
| xylene                                                                 | 6.7                     | 0.89      |                |            |              |        |
| 2-methoxy-1-methylethyl acetate                                        | 2.7                     | 0.36      | OECD 104       |            |              |        |
| hydrocarbons, C9, aromatics                                            | 2.5                     | 0.33      |                |            |              |        |
| tetraethyl silicate                                                    | 0.82                    | 0.11      |                |            |              |        |
| 2-butoxyethanol                                                        | 0.75006                 | 0.1       |                |            |              |        |
| phosphoric acid                                                        | 0.03                    | 0.004     |                |            |              |        |
| copper, [29h,31h-phthalocyaninato<br>(2-)-n29,n30,n31,n32]-, (sp-4-1)- | <0.0008                 | <0.000011 | EU A.4         |            |              |        |
| zinc chloride                                                          | 0                       | 0         |                |            |              |        |
| [N,N,N',N',N'',N''-hexaethyl-29H,<br>31H-                              | 0                       | 0         |                | 0          | 0            |        |
| phthalocyaninetrimethylaminato<br>(2-)-N29,N30,N31,N32]copper          |                         |           |                |            |              |        |
| elative vapour density                                                 | : Not ava               | ilable.   |                |            |              |        |
| ensity                                                                 | : 1.194 g               | /cm³      |                |            |              |        |

#### Solubility(ies)

| Media                                                                   | Result                     |  |
|-------------------------------------------------------------------------|----------------------------|--|
| cold water<br>hot water                                                 | Not soluble<br>Not soluble |  |
| Partition coefficient: n-<br>octanol/water<br>Auto-ignition temperature | : Not applicable.          |  |

# Section 9. Physical and chemical properties and safety characteristics

| Ingredient name                                                                                        | °C         | °F         | Method    |  |
|--------------------------------------------------------------------------------------------------------|------------|------------|-----------|--|
| [N,N,N',N',N'',N''-hexaethyl-29H,31H-<br>phthalocyaninetrimethylaminato(2-)-N29,N30,N31,<br>N32]copper | 192        | 377.6      |           |  |
| dipropylene glycol methyl ether                                                                        | 207        | 404.6      | EU A.15   |  |
| tetraethyl silicate                                                                                    | 222        | 431.6      |           |  |
| 2-butoxyethanol                                                                                        | 230        | 446        | DIN 51794 |  |
| hydrocarbons, C9, aromatics                                                                            | 280 to 470 | 536 to 878 |           |  |
| 2-methoxy-1-methylethyl acetate                                                                        | 333        | 631.4      | DIN 51794 |  |
| copper, [29h,31h-phthalocyaninato(2-)-n29,n30,n31,<br>n32]-, (sp-4-1)-                                 | 356        | 672.8      | EU A.16   |  |
| 2-methylpropan-1-ol                                                                                    | 415        | 779        |           |  |
| xylene                                                                                                 | 432        | 809.6      |           |  |
| ethylbenzene                                                                                           | 432.22     | 810        |           |  |
| ethanol                                                                                                | 455        | 851        | DIN 51794 |  |
| propan-2-ol                                                                                            | 456        | 852.8      |           |  |

| Decomposition temperature | 1 | Not availa |
|---------------------------|---|------------|
| Viscosity                 | : | Kinematic  |

| 1 | Kinematic | (room | temper  | ature): 66.9 m             | m²/s  | (66.9 cSt) |
|---|-----------|-------|---------|----------------------------|-------|------------|
|   | Kinematic | (40°C | (104°F) | ): >20.5 mm <sup>2</sup> / | s (>2 | 0.5 cSt)   |

#### Particle characteristics

Median particle size

: Not applicable.

## Section 10. Stability and reactivity

| Chemical stability                 | : | The product is stable.                                                                                                                                                  |
|------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Possibility of hazardous reactions | : | Under normal conditions of storage and use, hazardous reactions will not occur.                                                                                         |
| Conditions to avoid                | : | 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:<br>oxidising 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

| Product/ingredient name | Result                 | Species                      | Dose                     | Exposure |
|-------------------------|------------------------|------------------------------|--------------------------|----------|
| ethanol                 | LC50 Inhalation Vapour | Rat                          | 124700 mg/m <sup>3</sup> | 4 hours  |
| 2-butoxyethanol         | LD50 Oral              | Guinea pig -<br>Male, Female | 1414 mg/kg               | -        |
|                         | LD50 Oral              | Rat - Male,<br>Female        | 1300 mg/kg               | -        |
| propan-2-ol             | LD50 Dermal            | Rabbit                       | 12800 mg/kg              | -        |
|                         | LD50 Oral              | Rat                          | 5000 mg/kg               | -        |
| zinc chloride           | LD50 Oral              | Rat                          | 350 mg/kg                | -        |

## Section 11. Toxicological information

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Species                            | Score | Exposure                   | Observation |
|-------------------------|--------------------------|------------------------------------|-------|----------------------------|-------------|
| ethanol                 | Eyes - Moderate irritant | Rabbit                             | -     | 100<br>microliters         | -           |
|                         | Skin - Mild irritant     | Rabbit                             | -     | 400<br>milligrams          | -           |
| 2-butoxyethanol         | Eyes - Moderate irritant | Rabbit                             | -     | 24 hours 100<br>mg         | -           |
|                         | Skin - Mild irritant     | Rabbit                             | -     | 500 mg                     | -           |
| tetraethyl silicate     | Eyes - Mild irritant     | Mammal -<br>species<br>unspecified | -     | -                          | -           |
| propan-2-ol             | Eyes - Moderate irritant | Rabbit                             | -     | 24 hours 100<br>milligrams | -           |
|                         | Skin - Mild irritant     | Rabbit                             | -     | 500<br>milligrams          | -           |
| zinc chloride           | Skin - Severe irritant   | Rabbit                             | -     | 120 hours 1<br>Percent     | -           |

#### **Sensitisation**

Not available.

#### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

#### Specific target organ toxicity (single exposure)

| Product/ingredient name      | Category                 | Route of exposure | Target organs                                       |
|------------------------------|--------------------------|-------------------|-----------------------------------------------------|
| tetraethyl silicate          | Category 3               | -                 | Respiratory tract irritation                        |
| propan-2-ol<br>zinc chloride | Category 3<br>Category 3 | -                 | Narcotic effects<br>Respiratory tract<br>irritation |

<u>Specific target organ toxicity (repeated exposure)</u> Not available.

#### **Aspiration hazard**

Not available.

#### Information on likely routes : Not available.

#### of exposure

 Potential acute health effects

 Eye contact
 : Causes serious eye irritation.

 Inhalation
 : No known significant effects or critical effects

| Inhalation   | : No known significant effects or critical hazards. |
|--------------|-----------------------------------------------------|
| Skin contact | : Causes mild skin irritation.                      |
| Ingestion    | : No known significant effects or critical hazards. |

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

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## Section 11. Toxicological information

| Eye contact  | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |
|--------------|--------------------------------------------------------------------------------------------|
| Inhalation   | : No specific data.                                                                        |
| Skin contact | : Adverse symptoms may include the following:<br>irritation<br>redness                     |
| Ingestion    | : No specific data.                                                                        |

| Delayed and immediate effect   | Delayed and immediate effects as well as chronic effects from short and long-term exposure |  |  |  |  |  |
|--------------------------------|--------------------------------------------------------------------------------------------|--|--|--|--|--|
| Short term exposure            |                                                                                            |  |  |  |  |  |
| Potential immediate<br>effects | : Not available.                                                                           |  |  |  |  |  |
| Potential delayed effects      | : Not available.                                                                           |  |  |  |  |  |
| <u>Long term exposure</u>      |                                                                                            |  |  |  |  |  |
| Potential immediate<br>effects | : Not available.                                                                           |  |  |  |  |  |
| Potential delayed effects      | : Not available.                                                                           |  |  |  |  |  |
| Potential chronic health eff   | ects                                                                                       |  |  |  |  |  |
| Not available.                 |                                                                                            |  |  |  |  |  |
| General                        | : No known significant effects or critical hazards.                                        |  |  |  |  |  |
| Carcinogenicity                | : No known significant effects or critical hazards.                                        |  |  |  |  |  |
| Mutagenicity                   | : No known significant effects or critical hazards.                                        |  |  |  |  |  |

#### Numerical measures of toxicity

#### Acute toxicity estimates

**Reproductive toxicity** 

| Product/ingredient name  | Oral (mg/<br>kg) | Dermal<br>(mg/kg) | Inhalation<br>(gases)<br>(ppm) | Inhalation<br>(vapours)<br>(mg/l) | Inhalation<br>(dusts<br>and mists)<br>(mg/l) |
|--------------------------|------------------|-------------------|--------------------------------|-----------------------------------|----------------------------------------------|
| Jotatemp 540 Zinc Comp A | 14285.7          | N/A               | N/A                            | 30.8                              | N/A                                          |
| ethanol                  | 7000             | N/A               | N/A                            | 124.7                             | N/A                                          |
| 2-butoxyethanol          | 1200             | N/A               | N/A                            | 3                                 | N/A                                          |
| tetraethyl silicate      | N/A              | N/A               | N/A                            | 11                                | N/A                                          |
| propan-2-ol              | N/A              | 12800             | N/A                            | N/A                               | N/A                                          |
| zinc chloride            | 350              | N/A               | N/A                            | N/A                               | N/A                                          |

: No known significant effects or critical hazards.

## Section 12. Ecological information

| Toxicity                |                                                                       |                                                                               |                      |  |  |
|-------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------|--|--|
| Product/ingredient name | Result                                                                | Species                                                                       | Exposure             |  |  |
| 2-butoxyethanol         | Acute EC50 1000 mg/l Fresh water<br>Acute LC50 1000 mg/l Marine water | Daphnia - Daphnia magna<br>Crustaceans -<br>Chaetogammarus marinus -<br>Young | 48 hours<br>48 hours |  |  |
| propan-2-ol             | Acute EC50 10100 mg/l Fresh water<br>Acute LC50 4200 mg/l Fresh water | Daphnia - Daphnia magna<br>Fish - Rasbora heteromorpha                        | 48 hours<br>96 hours |  |  |

#### Persistence and degradability

| Date | of | issue | /Date | of | revi | sion |
|------|----|-------|-------|----|------|------|
|      |    |       |       |    |      |      |

## Section 12. Ecological information

Not available.

#### **Bioaccumulative potential**

| Product/ingredient name | LogP <sub>ow</sub> | BCF   | Potential |
|-------------------------|--------------------|-------|-----------|
| ethanol                 | -0.35              | -     | low       |
| 2-butoxyethanol         | 0.81               | -     | low       |
| tetraethyl silicate     | 3.18               | -     | low       |
| propan-2-ol             | 0.05               | -     | low       |
| zinc chloride           | -                  | 60960 | high      |

#### **Mobility in soil**

| Soil/water partition | : | Not available. |
|----------------------|---|----------------|
| coefficient (Koc)    |   |                |

Other adverse effects

: No known significant effects or critical hazards.

## Section 13. Disposal considerations

| 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<br>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 spilt material and runoff and contact with soil, waterways, drains and                                                                                       |
|                  | sewers.                                                                                                                                                                   |

## Section 14. Transport information

|                               | UN                                                                   | IMDG                                                    | IATA   |  |
|-------------------------------|----------------------------------------------------------------------|---------------------------------------------------------|--------|--|
| UN number                     | UN1263                                                               | UN1263                                                  | UN1263 |  |
| UN proper<br>shipping name    | Paint                                                                | Paint                                                   | Paint  |  |
| Transport hazard<br>class(es) | 3                                                                    | 3                                                       | 3      |  |
| Packing group                 | III                                                                  | 111                                                     |        |  |
| Environmental<br>hazards      | No.                                                                  | No.                                                     | No.    |  |
| Additional information        | tion                                                                 |                                                         | · ·    |  |
| UN                            | : <u>Remarks</u> In accord                                           | ance with 2.3.2.2                                       |        |  |
| ADR/RID                       | : Tunnel restriction code: (D/E)<br>Hazard identification number: 33 |                                                         |        |  |
| IMDG                          | : <u>Emergency sched</u><br><u>Remarks</u> In accord                 | <u>lules</u> F-E, <u>S-E</u><br>dance with IMDG 2.3.2.2 |        |  |

## 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. |

Transport in bulk according : Not available. to IMO instruments

## Section 15. Regulatory information

#### **TCCSCA List of toxic chemicals**

Not applicable.

| TCCSCA List of concerned | <u>chemicals</u>                                 |
|--------------------------|--------------------------------------------------|
| Not applicable.          |                                                  |
| OSHA Enforcement Rules   | : This product contains substances "Specially ha |

OSHA Enforcement Rules<br/>Article 28: This product contains substances "Specially hazardous to health": 2-butoxyethanol,<br/>propan-2-ol, xylene, 2-methylpropan-1-ol.

Organic solvent poisoning : Type 2 prevention rule

Priority management chemicals, Article 2

CMR chemical substances, category 1 (Article 2.2 (I)) : Applicable

#### Chemical substances possessing physical hazards or health hazards (Article 2.2 (II))

| Ingredient name                 | Name on list                              | Concentration |
|---------------------------------|-------------------------------------------|---------------|
| propan-2-ol                     | isopropyl alcohol                         | ≤5            |
| 2-methoxy-1-methylethyl acetate | propylene glycol monomethyl ether acetate | ≤0.3          |

#### 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.

## Section 16. Other information

#### Procedure used to derive the classification

|                                                                                                                                     | Classification                                                                   | Justification                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| FLAMMABLE LIQUIDS - Cate<br>SKIN CORROSION/IRRITATI<br>SERIOUS EYE DAMAGE/EYE<br>AQUATIC TOXICITY (ACUTE<br>AQUATIC TOXICITY (CHROI | ON - Category 3<br>E IRRITATION - Category 2A<br>:) - Category 3                 | On basis of test data<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method |
| References<br>Organisation that prepared<br>the SDS                                                                                 | <ul> <li>Not available.</li> <li>Jotun AS, Norway<br/>+47 33 45 70 00</li> </ul> |                                                                                                               |
| <u>History</u>                                                                                                                      |                                                                                  |                                                                                                               |
| Date of printing                                                                                                                    | : 26.06.2024                                                                     |                                                                                                               |
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| Date of issue/Date of revision                                                                                                      | : 26.06.2024 Date of previous issue : 26                                         | .06.2024 Version :1.07 12/13                                                                                  |

## Section 16. Other information

| Version              | : 1.07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Key to abbreviations | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = International Air Transport Association<br>IBC = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships,<br>1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>N/A = Not available<br>SGG = Segregation Group<br>UN = United Nations |

✓ Indicates information that has changed from previously issued version.

#### Notice to reader

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.