# SAFETY DATA SHEET

-23S



# Jotapipe AC 2001-23S

### Section 1. Identification

| GHS product identifier        | : Jotapipe AC 2001 |
|-------------------------------|--------------------|
| Other means of identification | : Not available.   |
| Product code                  | : 16414            |
| Product type                  | : Powder coating.  |

#### Relevant identified uses of the substance or mixture and uses advised against

| Identified uses                 |   |  |
|---------------------------------|---|--|
| Use in coatings - Industrial us | se  |  |
| Manufacturing country           | <ul> <li>Jotun Thailand Limited<br/>700/353 Amata Nakorn Industrial Estate (BIP 2)<br/>Moo 6, Tumbol Donhualoh, Amphur Muang Chonburi<br/>Chonburi 20000 Thailand</li> <li>Phone: + 66 2 022 9888<br/>Fax: + 66 2 022 9888 , + 66 38 214 375</li> <li>SDSJotun@jotun.com</li> </ul> |  |
| Emergency telephone numbe       | : Jotun Thailand Limited<br>Phone: + 66 2 022 9888 ext. 3101, 2400, 2402  |  |

# Section 2. Hazards identification

| Classification of the substance or mixture | : SKIN CORROSION/IRRITATION - Category 3<br>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A<br>SKIN SENSITISATION - Category 1<br>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3  |
|--|--|
| GHS label elements                         |  |
|  |  |
| Signal word                                | : Warning.   |
| Hazard statements                          | <ul> <li>H319 - Causes serious eye irritation.</li> <li>H316 - Causes mild skin irritation.</li> <li>H317 - May cause an allergic skin reaction.</li> <li>H412 - Harmful to aquatic life with long lasting effects.</li> </ul>   |
| Precautionary statements                   |  |
| Prevention                                 | : P261 - Avoid breathing dust.   |
| Response                                   | <ul> <li>P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.</li> <li>P333 + P313 - If skin irritation or rash occurs: Get medical attention.</li> <li>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.</li> <li>Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337 + P313 - If eye irritation persists: Get medical attention.</li> </ul> |
| Storage                                    | : Not applicable.  |

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### Section 2. Hazards identification

| -            | - |    | _ |
|--------------|---|----|---|
| <br><b>C</b> | m | 10 |   |
|              |   |    |   |
|              |   |    |   |

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

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

### Section 3. Composition/information on ingredients

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

| CAS number/other identifiers |   |                 |
|------------------------------|---|-----------------|
| CAS number                   | : | Not applicable. |
| EC number                    | : | Mixture.        |
| Product code                 | 1 | 16414           |
|                              |   |                 |

| Ingredient name   | %          | CAS number              |
|---|------------|-------------------------|
| phenol, polymer with formaldehyde, glycidyl ether calcium oxide | ≤5<br>≤2.8 | 28064-14-4<br>1305-78-8 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First aid measures

| Description of necessary first a |  |
|----------------------------------|--|
| Eye contact                      | : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.  |
| Inhalation                       | : Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br>If not breathing, if breathing is irregular or if respiratory arrest occurs, provide<br>artificial respiration or oxygen by trained personnel. It may be dangerous to the<br>person providing aid to give mouth-to-mouth resuscitation. Get medical attention if<br>adverse health effects persist or are severe. If unconscious, place in recovery<br>position and get medical attention immediately. Maintain an open airway. Loosen<br>tight clothing such as a collar, tie, belt or waistband. In case of inhalation of<br>decomposition products in a fire, symptoms may be delayed. The exposed person<br>may need to be kept under medical surveillance for 48 hours.   |
| Skin contact                     | : Wash with plenty of soap and water. Remove contaminated clothing and shoes.<br>Wash contaminated clothing thoroughly with water before removing it, or wear<br>gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the<br>event of any complaints or symptoms, avoid further exposure. Wash clothing<br>before reuse. Clean shoes thoroughly before reuse.  |
| Ingestion                        | : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air<br>and keep at rest in a position comfortable for breathing. If material has been<br>swallowed and the exposed person is conscious, give small quantities of water to<br>drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not<br>induce vomiting unless directed to do so by medical personnel. If vomiting occurs,<br>the head should be kept low so that vomit does not enter the lungs. Get medical<br>attention if adverse health effects persist or are severe. Never give anything by<br>mouth to an unconscious person. If unconscious, place in recovery position and get<br>medical attention immediately. Maintain an open airway. Loosen tight clothing such<br>as a collar, tie, belt or waistband. |

Most important symptoms/effects, acute and delayed Potential acute health effects

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# Section 4. First aid measures

| Section 4.1 list an         |   |
|-----------------------------|---|
| Eye contact                 | : Causes serious eye irritation.  |
| Inhalation                  | : No known significant effects or critical hazards.   |
| Skin contact                | : Causes mild skin irritation. May cause an allergic skin reaction.   |
| Ingestion                   | : No known significant effects or critical hazards.   |
| Over-exposure signs/symp    | toms  |
| 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 med | ical attention and special treatment needed, if necessary   |
| Notes to physician          | <ul> <li>In case of inhalation of decomposition products in a fire, symptoms may be delayed.<br/>The exposed person may need to be kept under medical surveillance for 48 hours.</li> </ul>   |
| 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

See toxicological information (Section 11)

| Section 5. Firefighting measures   |  |        |  |  |
|--|--|--------|--|--|
| Extinguishing media<br>Suitable extinguishing media<br>Unsuitable extinguishing<br>media | Use an extinguishing agent suitable for the surrounding fire.<br>None known.   |        |  |  |
| Specific hazards arising from the chemical   | 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   | Fine dust clouds may form explosive mixtures with air.<br>Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>sulfur oxides<br>metal oxide/oxides |        |  |  |
| Special protective actions for fire-fighters   | Promptly isolate the scene by removing all persons from the vicinity of the incide there is a fire. No action shall be taken involving any personal risk or without suitable training.                               | ent if |  |  |
| 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.  | l      |  |  |

# Section 6. Accidental release measures

| Personal precautions, protecti | ve e | quipment and emergency procedures   |
|--------------------------------|------|---|
| For non-emergency<br>personnel | :    | 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. Provide adequate ventilation.<br>Wear appropriate respirator when ventilation is inadequate. Put on appropriate<br>personal protective equipment.   |
| For emergency responders       | :    | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".   |
| Environmental precautions      | :    | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains<br>and sewers. Inform the relevant authorities if the product has caused environmental<br>pollution (sewers, waterways, soil or air). Water polluting material. May be harmful<br>to the environment if released in large quantities.   |
| Methods and material for cont  | ainn | nent and cleaning up  |
| Small spill                    | :    | Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.   |
| Large spill                    | :    | Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

# Section 7. Handling and storage

| Precautions for safe handling                                   | : | 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 incompatibilities | : | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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. |
|   |   | See Technical Data Sheet / packaging for further information.   |

# Section 8. Exposure controls/personal protection

| Control parameters                          |   |
|---|---|
| Occupational exposure limits                |   |
| Dust Limit : 10 mg/m <sup>3</sup> (TWA of t | total inhalable dust) and 4 mg/m³ (TWA of respirable)   |
| Recommended monitoring :<br>procedures      | If this product contains ingredients with exposure limits, personal, workplace<br>atmosphere or biological monitoring may be required to determine the effectiveness<br>of the ventilation or other control measures and/or the necessity to use respiratory<br>protective equipment. Reference should be made to appropriate monitoring<br>standards. Reference to national guidance documents for methods for the<br>determination of hazardous substances will also be required. |
| Appropriate engineering :<br>controls       | Good general ventilation should be sufficient to control worker exposure to airborne contaminants.  |

# Section 8. Exposure controls/personal protection

| Environmental exposure controls | : Emissions from ventilation or work process equipment should be checked to e<br>they comply with the requirements of environmental protection legislation. In<br>cases, fume scrubbers, filters or engineering modifications to the process<br>equipment will be necessary to reduce emissions to acceptable levels.   |                          |
|---------------------------------|---|--------------------------|
| Individual protection measur    | <u>8</u>  |                          |
| Hygiene measures                | : Wash hands, forearms and face thoroughly after handling chemical products, eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clucontaminated work clothing should not be allowed out of the workplace. Was contaminated clothing before reusing. Ensure that eyewash stations and safe showers are close to the workstation location.   | lothing.<br>sh           |
| Eye/face protection             | : Safety eyewear complying to EN 166 should be used when a risk assessment<br>indicates this is necessary to avoid exposure to liquid splashes, mists, gases<br>dusts. If contact is possible, the following protection should be worn, unless the<br>assessment indicates a higher degree of protection: chemical splash goggles   | or<br>he                 |
| Skin protection                 |   |                          |
| Hand protection                 | : Chemical-resistant, impervious gloves complying with an approved standard s<br>be worn at all times when handling chemical products if a risk assessment ind<br>this is necessary. Considering the parameters specified by the glove manufac-<br>check during use that the gloves are still retaining their protective properties.<br>should be noted that the time to breakthrough for any glove material may be<br>different for different glove manufacturers. In the case of mixtures, consisting<br>several substances, the protection time of the gloves cannot be accurately<br>estimated. | dicates<br>cturer,<br>It |
|                                 | <ul> <li>There is no one glove material or combination of materials that will give unlim resistance to any individual or combination of chemicals.</li> <li>The breakthrough time must be greater than the end use time of the product.</li> <li>The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.</li> <li>Gloves should be replaced regularly and if there is any sign of damage to the material.</li> <li>Always ensure that gloves are free from defects and that they are stored and correctly.</li> </ul>    | glove                    |
|                                 | The performance or effectiveness of the glove may be reduced by physical/ch<br>damage and poor maintenance.<br>Barrier creams may help to protect the exposed areas of the skin but should r<br>applied once exposure has occurred.   |                          |
|                                 | Wear suitable gloves tested to EN374.<br>Recommended, gloves(breakthrough time) > 8 hours: butyl rubber, nitrile rubb<br>neoprene, PVC  | ber,                     |
| Body protection                 | : Personal protective equipment for the body should be selected based on the t being performed and the risks involved and should be approved by a specialis before handling this product.   |                          |
| 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 approved by a specialist before handling this product.  | d be                     |
| Respiratory protection          | : Based on the hazard and potential for exposure, select a respirator that meets appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other imp aspects of use.  | a<br>portant             |
|                                 | If workers are exposed to concentrations above the exposure limit, they must respirator according to EN 140. If dust is generated and ventilation is inadequ use respirator that will protect against dust/mist. (FFP2 / N95).  |                          |

# Section 9. Physical and chemical properties

| Appearance                                 |   |   |
|--|---|---|
| Physical state                             | : | Solid. Powder.  |
| Colour                                     | : | Various   |
| Odour                                      | 1 | Odourless.  |
| Odour threshold                            | 1 | Not available.  |
| рН   | ; | Not applicable.   |
| Melting point                              | 1 | Not applicable.   |
| Boiling point                              | 1 | Not available.  |
| Flash point                                | 1 | Not available.  |
| Burning time                               | : | Not available.  |
| Burning rate                               | 1 | Not available.  |
| Evaporation rate                           | 1 | Not available.  |
| Flammability (solid, gas)                  | 1 | Not applicable.   |
| Lower explosion limit                      | 1 | 30 g/m³   |
| Minimum ignition energy (mJ)               | : | 10 - 30   |
| Vapour pressure                            | : | Not available.  |
| Vapour density                             | 1 | Not available.  |
| Relative density                           | 1 | 1.48 to 1.58 g/cm <sup>3</sup>                                  |
| Solubility                                 | 1 | Insoluble in the following materials: cold water and hot water. |
| Partition coefficient: n-octanol/<br>water | : | Not available.  |
| Auto-ignition temperature                  | 1 | > 400°C   |
| Decomposition temperature                  | : | >250°C (>482°F)   |
| SADT                                       | 1 | Not available.  |
| Viscosity                                  | 1 | Not applicable.   |
| Aerosol product                            |   |   |

# Section 10. Stability and reactivity

| Reactivity   | : No specific test data related to reactivity available for this product or its ingredient             | ts. |
|--|--|-----|
| 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                                    | : No specific data.  |     |
| Incompatible materials                                 | : Not applicable.  |     |
| Hazardous decomposition<br>products                    | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |     |
| Fine dust clouds may form explosive mixtures with air. |  |     |

# Section 11. Toxicological information

Information on toxicological effects Acute toxicity Not available.

Irritation/Corrosion

# Section 11. Toxicological information

|  | - 9                  |                                    |       |          |             |
|--|----------------------|------------------------------------|-------|----------|-------------|
| Product/ingredient name                              | Result               | Species                            | Score | Exposure | Observation |
| phenol, polymer with<br>formaldehyde, glycidyl ether | Skin - Mild irritant | Mammal -<br>species<br>unspecified | -     | -        | -           |
|  | Eyes - Mild irritant | Mammal -<br>species<br>unspecified | -     | -        | -           |
| calcium oxide  | Eyes - Irritant      | Mammal -<br>species<br>unspecified | -     | -        | -           |
|  | Skin - Mild irritant | Mammal -<br>species<br>unspecified | -     | -        | -           |

#### **Sensitisation**

| Product/ingredient name                              | Route of exposure | Species                         | Result      |
|--|-------------------|---------------------------------|-------------|
| phenol, polymer with<br>formaldehyde, glycidyl ether | skin              | Mammal - species<br>unspecified | Sensitising |

#### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

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

| Name          | Category   | Route of exposure | Target organs                |
|---------------|------------|-------------------|------------------------------|
| calcium oxide | Category 3 | Not applicable.   | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

#### Potential acute health effects

| Eye contact  | : Causes serious eye irritation.                                    |
|--------------|---|
| Inhalation   | : No known significant effects or critical hazards.                 |
| Skin contact | : Causes mild skin irritation. May cause an allergic skin reaction. |
| Ingestion    | : No known significant effects or critical hazards.                 |

| Symptoms related to th | e physical, chemical and toxicological characteristics |
|------------------------|--|
| Inhalation             | : No specific data.                                    |

|              | 1  |
|--------------|--|
| Ingestion    | : No specific data.  |
| Skin contact | : Adverse symptoms may include the following:<br>irritation<br>redness                     |
| Eye contact  | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |

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## Section 11. Toxicological information

#### Potential chronic health effects

| General               | : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
|-----------------------|---|
| Carcinogenicity       | : No known significant effects or critical hazards.   |
| 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.   |

#### Numerical measures of toxicity

Acute toxicity estimates

Not available.

### Section 12. Ecological information

| Toxicity  |                     |         |          |  |
|---|---------------------|---------|----------|--|
| Product/ingredient name                           | Result              | Species | Exposure |  |
| phenol, polymer with formaldehyde, glycidyl ether | Acute EC50 3.3 mg/l | Daphnia | 48 hours |  |
|   | Acute LC50 7.5 mg/l | Fish    | 96 hours |  |

#### Persistence and degradability

| Product/ingredient name                              | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| phenol, polymer with<br>formaldehyde, glycidyl ether | -                 | -          | Not readily      |

#### **Bioaccumulative potential**

| Product/ingredient name | LogPow | BCF  | Potential |
|-------------------------|--------|------|-----------|
| calcium oxide           | -      | 2.34 | low       |

#### Mobility in soil

: No known significant effects or critical hazards.

### Section 13. Disposal considerations

**Disposal methods** 

Other adverse effects

: 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 nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### Section 14. Transport information

|                                 | UN  | IMDG  | ΙΑΤΑ  |
|---------------------------------|---|---|---|
| UN number                       | Not regulated.  | Not regulated.  | Not regulated.  |
| UN proper shipping name         | -   | -   | -   |
| Transport hazard<br>class(es)   | -   | -   | -   |
| Packing group                   | -   | -   | -   |
| Environmental<br>hazards        | No.   | No.   | No.   |
| Special precautions<br>for user | Transport within user's<br>premises: always transport in<br>closed containers that are<br>upright and secure. Ensure<br>that persons transporting the<br>product know what to do in<br>the event of an accident or<br>spillage. | <b>Transport within user's</b><br><b>premises:</b> always transport in<br>closed containers that are<br>upright and secure. Ensure<br>that persons transporting the<br>product know what to do in<br>the event of an accident or<br>spillage. | <b>Transport within user's</b><br><b>premises:</b> always transport<br>in closed containers that are<br>upright and secure. Ensure<br>that persons transporting the<br>product know what to do in<br>the event of an accident or<br>spillage. |
| Additional information          | -   | -   | -   |

Transport in bulk according to : Not available. Annex II of Marpol and the IBC Code ADR / RID

### Section 15. Regulatory information

Hazardous Substance Act B.E. 2535 (1992)

<u>Type</u>

Ingredient name

#### 4

<u>Type</u>

<u>Authority</u>

**Conditions** 

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

### Section 16. Other information

| <u>History</u>                 |   |   |      |
|--------------------------------|---|---|------|
| Date of printing               | 1 | 27.08.2020  |      |
| Date of issue/Date of revision | : | 27.08.2020  |      |
| Date of previous issue         | : | 27.08.2020  |      |
| Version                        | : | 1.06  |      |
| Key to abbreviations           | : | ADN = European Provisions concerning the International Carriage of Dangerous<br>Goods by Inland Waterway<br>ADR = The European Agreement concerning the International Carriage of<br>Dangerous Goods by Road<br>ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemical<br>IATA = International Air Transport Association<br>IBC = International Air Transport Association<br>IBC = International Maritime Dangerous Goods<br>MARPOL = International Convention for the Prevention of Pollution From Ships,<br>1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) | ls   |
| Date of issue                  |   | : 27.08.2020  | 9/10 |

### Section 16. Other information

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations

LogPow = logarithm of the octanol/water partition coefficient

#### References

Indicates information that has changed from previously issued version.

: Not available.

#### 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.