according to Regulation (EC) No. 1907/2006

# ARALDITE® 2033 B

| Version | Revision Date: | SDS Number:  | Date of last issue: 11.06.2018  |
|---------|----------------|--------------|---------------------------------|
| 1.2     | 10.11.2021     | 400001009725 | Date of first issue: 01.03.2017 |

Print Date 10.03.2023

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

| 1.1 Product identifier             |                       |
|------------------------------------|-----------------------|
| Trade name                         | : ARALDITE® 2033 B    |
| Unique Formula Identifier<br>(UFI) | : KSP5-80QG-7009-UDQ5 |

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

| Use of the        | : Hardener |
|-------------------|------------|
| Substance/Mixture |            |

#### 1.3 Details of the supplier of the safety data sheet

| Company<br>Address                               | <ul> <li>Huntsman Advanced Materials (Europe)BVBA</li> <li>Everslaan 45</li> <li>3078 Everberg</li> <li>Belgium</li> </ul> |
|--|--|
| Telephone<br>Telefax                             | : +41 61 299 20 41<br>: +41 61 299 20 40   |
| E-mail address of person responsible for the SDS | : Global_Product_EHS_AdMat@huntsman.com  |

#### **1.4 Emergency telephone number**

| Emergency telephone number |   |  |  |
|----------------------------|---|--|--|
| Emergency telephone number | : | Centres Antipoison et de Toxicovigilance:<br>ANGERS: 02 41 48 21 21<br>BORDEAUX: 05 56 96 40 80<br>LILLE: 0 825 812 822<br>LYON: 04 72 11 69 11<br>MARSEILLE 04 91 75 25 25<br>NANCY: 03 83 32 36 36<br>PARIS: 01 40 05 48 48<br>RENNES: 02 99 59 22 22<br>STRASBOURG: 03 88 37 37 37<br>TOULOUSE: 05 61 77 74 47<br>EUROPE: $+32$ 35 75 1234<br>France ORFILA: $+33(0)$ 145425959<br>ASIA: $+65$ 6336-6011<br>China: $+86$ 20 39377888<br>+86 532 83889090<br>India: $+$ 91 22 42 87 5333<br>Australia: 1800 786 152<br>New Zealand: 0800 767 437<br>USA: $+1/800/424.9300$ |  |



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### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

| Classification (REGULATION (EC) No 127 | 72/2008)   |
|--|--|
| Skin irritation, Category 2            | H315: Causes skin irritation.                          |
| Serious eye damage, Category 1         | H318: Causes serious eye damage.                       |
| Skin sensitisation, Category 1         | H317: May cause an allergic skin reaction.             |
| Chronic aquatic toxicity, Category 2   | H411: Toxic to aquatic life with long lasting effects. |

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



| Signal word              | : | Danger   |   |
|--------------------------|---|--|---|
| Hazard statements        | : | H315<br>H317<br>H318<br>H411   | Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye damage.<br>Toxic to aquatic life with long lasting effects.   |
| Precautionary statements | : | <b>Prevention:</b><br>P261<br>P264<br>P273<br>P280<br><b>Response:</b> | Avoid breathing mist or vapours.<br>Wash skin thoroughly after handling.<br>Avoid release to the environment.<br>Wear protective gloves/ eye protection/ face<br>protection.  |
|                          |   | P305 + P351 + P3<br>P391   | <ul> <li>B38 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. Collect spillage.</li> </ul> |

Hazardous components which must be listed on the label:

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine

2,4,6-tris(dimethylaminomethyl)phenol

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

#### Hazardous components

| Chemical name  | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number    | Classification   | Concent<br>ration<br>(% w/w) |
|--|--|--|------------------------------|
| Fatty acids, C18-unsatd.,<br>dimers, oligomeric reaction<br>products with tall-oil fatty acids<br>and triethylenetetramine | 68082-29-1<br>500-191-5<br>01-2119972320-44              | Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>Skin Sens. 1A; H317<br>Aquatic Chronic 2;<br>H411 | >= 30 -<br>< 50              |
| 2,4,6-<br>tris(dimethylaminomethyl)phenol  | 90-72-2<br>202-013-9<br>603-069-00-0<br>01-2119560597-27 | Acute Tox. 4; H302<br>Skin Corr. 1C; H314<br>Eye Dam. 1; H318                                | >= 3 - < 5                   |

For explanation of abbreviations see section 16.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

| General advice :             | Move out of dangerous area.<br>Consult a physician.<br>Show this safety data sheet to the doctor in attendance.<br>Treat symptomatically.<br>Get medical attention if symptoms occur.   |
|------------------------------|---|
| Protection of first-aiders : | First Aid responders should pay attention to self-protection<br>and use the recommended protective clothing<br>If potential for exposure exists refer to Section 8 for specific<br>personal protective equipment.<br>Avoid inhalation, ingestion and contact with skin and eyes.<br>No action shall be taken involving any personal risk or without<br>suitable training.<br>It may be dangerous to the person providing aid to give<br>mouth-to-mouth resuscitation. |
| If inhaled :                 | If inhaled, remove to fresh air.<br>Get medical attention if symptoms occur.  |
| In case of skin contact :    | If skin irritation persists, call a physician.  |



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|  |   | lf on skin, rinse<br>If on clothes, re  | well with water.<br>move clothes.   |
| In cas   | e of eye contact  | tissue damage<br>In the case of c<br>of water and se<br>Continue rinsin<br>Remove contac<br>Keep eye wide   | ontact with eyes, rinse immediately with plenty<br>ek medical advice.<br>g eyes during transport to hospital. |
| lf swa   | llowed  | If symptoms pe  | thing by mouth to an unconscious person.<br>rsist, call a physician.  |
| None   | mportant symptoms an<br>known.<br>tion of any immediate   | nd effects, both acu  | nediately to hospital.<br>Ite and delayed<br>nd special treatment needed                                      |
| None   | known.<br>tion of any immediate   | nd effects, both acu  | ite and delayed<br>nd special treatment needed  |
| None<br>4.3 Indica<br>Treatr<br>SECTION<br>5.1 Exting                              | known.<br>tion of any immediate   | nd effects, both acu<br>medical attention a<br>: Treat symptom  | <b>ute and delayed</b><br><b>nd special treatment needed</b><br>atically.                                     |
| None<br>4.3 Indicat<br>Treatr<br>SECTION<br>5.1 Exting<br>Suitat                   | known.<br>tion of any immediate<br>ment<br>I 5: Firefighting meas<br>uishing media<br>ble extinguishing media<br>table extinguishing  | nd effects, both acu<br>medical attention a<br>: Treat symptoma<br>sures<br>: Water spray<br>Alcohol-resistar<br>Carbon dioxide<br>Dry chemical   | nd special treatment needed<br>atically.  |
| None<br>4.3 Indicat<br>Treat<br>SECTION<br>5.1 Exting<br>Suitat                    | known.<br>tion of any immediate<br>ment<br>I 5: Firefighting meas<br>uishing media<br>ble extinguishing media<br>table extinguishing  | <ul> <li>and effects, both acumedical attention a</li> <li>Treat symptoms</li> <li>sures</li> <li>Water spray<br/>Alcohol-resistar<br/>Carbon dioxide<br/>Dry chemical</li> <li>Exercise cautio<br/>scatter and spress</li> </ul> | atically.   |
| None<br>4.3 Indicat<br>Treatr<br>SECTION<br>5.1 Exting<br>Suitat<br>Unsui<br>media | known.<br>tion of any immediate ment<br>I 5: Firefighting measure<br>uishing media<br>ble extinguishing media<br>table extinguishing media<br>al hazards arising from<br>fic hazards during | <ul> <li>medical attention a</li> <li>Treat symptom</li> <li>sures</li> <li>Water spray<br/>Alcohol-resistar<br/>Carbon dioxide<br/>Dry chemical</li> <li>Exercise cautio<br/>scatter and spress</li> </ul>                       | atically.   |

#### **5.3 Advice for firefighters**

| Special protective equipment for firefighters | : | Wear self-contained breathing apparatus for firefighting if necessary.                                  |
|---|---|---|
| Specific extinguishing methods                | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Further information                           | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains.      |

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Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### **SECTION 6: Accidental release measures**

# 6.1 Personal precautions, protective equipment and emergency procedures Personal precautions : Use personal protective equipment.

| r craonal precations            | •    | Refer to protective measures listed in sections 7 and 8.   |
|---------------------------------|------|--|
| 6.2 Environmental precautions   |      |  |
| Environmental precautions       | :    | Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<br>If the product contaminates rivers and lakes or drains inform<br>respective authorities. |
| 6.2 Mothodo and motorial for an | ntai | nmont and clooning un  |

### 6.3 Methods and material for containment and cleaning up

| Methods for cleaning up | : | Soak up with inert absorbent material (e.g. sand, silica gel, |
|-------------------------|---|---|
|                         |   | acid binder, universal binder, sawdust).                      |
|                         |   | Keep in suitable, closed containers for disposal.             |

### 6.4 Reference to other sections

For disposal considerations see section 13., See Section 1 for emergency contact information., For personal protection see section 8.

### **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

| Advice on safe handling                         | : | Repeated or prolonged skin contact may cause skin irritation<br>and/or dermatitis and sensitisation of susceptible persons.<br>Persons suffering from asthma, eczema or skin problems<br>should avoid contact, including dermal contact, with this<br>product.<br>Do not breathe vapours/dust.<br>Avoid exposure - obtain special instructions before use.<br>Avoid contact with skin and eyes.<br>For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the<br>application area.<br>To avoid spills during handling keep bottle on a metal tray.<br>Dispose of rinse water in accordance with local and national<br>regulations. |
|---|---|--|
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection.  |
| Hygiene measures                                | : | When using do not eat or drink. When using do not smoke.<br>Wash hands before breaks and at the end of workday.  |

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#### 7.2 Conditions for safe storage, including any incompatibilities

| ··- ··································        |   |  |
|---|---|--|
| Requirements for storage areas and containers | : | Keep container tightly closed in a dry and well-ventilated<br>place. Containers which are opened must be carefully<br>resealed and kept upright to prevent leakage. Keep in properly<br>labelled containers. |
| Advice on common storage                      | : | For incompatible materials please refer to Section 10 of this SDS.   |
| Further information on storage stability      | : | Stable under normal conditions.  |
| Recommended storage temperature               | : | 2 - 8 °C   |
| 7.3 Specific end use(s)<br>Specific use(s)    | : | No data available  |

### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name  | End Use   | Exposure routes | Potential health effects      | Value       |
|---|-----------|-----------------|-------------------------------|-------------|
| 2,4,6-<br>tris(dimethylaminomet<br>hyl)phenol   | Workers   | Inhalation      | Long-term systemic<br>effects | 0,53 mg/m3  |
|   | Workers   | Inhalation      | Acute systemic<br>effects     | 2,1 mg/m3   |
|   | Workers   | Dermal          | Long-term systemic effects    | 0,150 mg/kg |
|   | Workers   | Dermal          | Acute systemic<br>effects     | 0,600 mg/kg |
|   | Consumers | Inhalation      | Long-term systemic effects    | 0,130 mg/m3 |
|   | Consumers | Inhalation      | Acute systemic<br>effects     | 0,130 mg/m3 |
|   | Consumers | Dermal          | Long-term systemic effects    | 0,075 mg/kg |
|   | Consumers | Dermal          | Acute systemic<br>effects     | 0,075 mg/kg |
|   | Consumers | Oral            | Long-term systemic effects    | 0,075 mg/kg |
| Fatty acids, C18-<br>unsatd., dimers,<br>oligomeric reaction<br>products with tall-oil<br>fatty acids and | Workers   | Oral            | Long-term systemic<br>effects | 3,9 mg/m3   |



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| triethylenetetramine |           |            |                            |                    |
|----------------------|-----------|------------|----------------------------|--------------------|
|                      | Workers   | Dermal     | Long-term systemic effects | 1,1 mg/kg          |
|                      | Workers   | Inhalation | Systemic effects           | 0,97 mg/m3         |
|                      | Consumers | Oral       | Long-term systemic effects | 0,56 mg/kg         |
|                      | Consumers | Dermal     | Long-term systemic effects | 0,56 mg/kg         |
| Oxydipropanol        | Workers   | Inhalation | Long-term systemic effects | 238 mg/m3          |
|                      | Workers   | Dermal     | Long-term systemic effects | 84 mg/kg<br>bw/day |
|                      | Consumers | Inhalation | Long-term systemic effects | 70 mg/m3           |
|                      | Consumers | Dermal     | Long-term systemic effects | 51 mg/kg<br>bw/day |
|                      | Consumers | Oral       | Long-term systemic effects | 24 mg/kg<br>bw/day |

#### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name   |            | Environmental Compartment | Value        |
|--|------------|---------------------------|--------------|
| 2,4,6-<br>tris(dimethylaminomethyl)phenol  |            | Fresh water               | 0,046 mg/l   |
|  |            | Marine water              | 0,005 mg/l   |
| Remarks:   | Assessme   | ent Factors               |              |
|  |            | Sewage treatment plant    | 0,262 mg/l   |
|  | Assessme   | ent Factors               |              |
|  | 1          | Freshwater - intermittent | 0,46 mg/l    |
|  |            | Soil                      | 0,025 mg/kg  |
| Fatty acids, C18-unsatd., dimers,<br>oligomeric reaction products with<br>tall-oil fatty acids and<br>triethylenetetramine<br>Assessme |            | Fresh water               | 0,00434 mg/l |
|  |            | ent Factors               |              |
|  |            | Marine water              | 0,00043 mg/l |
|  | Assessme   | ent Factors               |              |
|  |            | Freshwater - intermittent | 0,0434 mg/l  |
|  |            | ent Factors               |              |
|  |            | Sewage treatment plant    | 3,84 mg/l    |
|  |            | ent Factors               |              |
|  | ł          | Fresh water sediment      | 434,02 mg/kg |
|  | Equilibriu | n method                  |              |



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|               | Marine sediment           | 43,4 mg/kg                       |
|---------------|---------------------------|----------------------------------|
|               | Equilibrium method        |                                  |
|               | Soil                      | 86,78 mg/kg                      |
|               | Equilibrium method        |                                  |
| Oxydipropanol | Fresh water               | 0,1 mg/l                         |
|               | Marine water              | 0,01 mg/l                        |
|               | Freshwater - intermittent | 1 mg/l                           |
|               | Sewage treatment plant    | 1000 mg/l                        |
|               | Fresh water sediment      | 0,238 mg/kg dry<br>weight (d.w.) |
|               | Marine sediment           | 0,024 mg/kg dry<br>weight (d.w.) |
|               | Soil                      | 0,025 mg/kg dry<br>weight (d.w.) |
|               | Oral                      | 313 mg/kg                        |

#### 8.2 Exposure controls

#### Personal protective equipment

| Personal protective equipme    | εnι |   |
|--------------------------------|-----|---|
| Eye protection                 | :   | Eye wash bottle with pure water<br>Tightly fitting safety goggles<br>Wear face-shield and protective suit for abnormal processing<br>problems.  |
| Hand protection<br>Material    | :   | butyl-rubber  |
| Material<br>Break through time |     | Ethyl Vinyl Alcohol Laminate (EVAL)<br>> 8 h  |
| Material<br>Break through time | -   | Nitrile rubber<br>10 - 480 min  |
| Remarks                        | :   | Take note of the information given by the producer<br>concerning permeability and break through times, and of<br>special workplace conditions (mechanical strain, duration of<br>contact).<br>Chemical-resistant, impervious gloves complying with an<br>approved standard should be worn at all times when handling<br>chemical products if a risk assessment indicates this is<br>necessary. The suitability for a specific workplace should be<br>discussed with the producers of the protective gloves. |
| Skin and body protection       | :   | Impervious clothing<br>Choose body protection according to the amount and<br>concentration of the dangerous substance at the work place.  |
| Respiratory protection         | :   | Use respiratory protection unless adequate local exhaust  |



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|                |                           | that exposures              | ovided or exposure assessment demonstrates<br>are within recommended exposure guidelines<br>uld conform to EN 14387 |
|                | Filter type               | : Combined parti            | culates and organic vapour type (A-P)   |

### **SECTION 9: Physical and chemical properties**

| <b>9.1 Informa</b><br>Physica | <b>tion on basic physical</b><br>al state |   | <b>d chemical properties</b><br>paste                     |
|-------------------------------|---|---|---|
| Colour                        |   | : | white   |
| Odour                         |   | : | amine-like  |
| Odour <sup>-</sup>            | Threshold                                 | : | No data is available on the product itself.               |
| рН                            |   | : | substance/mixture is non-soluble (in water)               |
| Melting                       | point/freezing point                      | : | No data is available on the product itself.               |
| Boiling                       | point                                     | : | > 200 °C  |
| Flash p                       | oint                                      | : | > 200 °C<br>Method: Pensky-Martens closed cup, closed cup |
| Flamma                        | ability (solid, gas)                      | : | No data is available on the product itself.               |
|                               | explosion limit / Upper<br>bility limit   | : | No data is available on the product itself.               |
|                               | explosion limit / Lower<br>bility limit   | : | No data is available on the product itself.               |
| Vapour                        | pressure                                  | : | < 0,1 hPa (20 °C)   |
| Relative                      | e vapour density                          | : | No data is available on the product itself.               |
| Relative                      | e density                                 | : | No data is available on the product itself.               |
| Density                       | ,   | : | 1,26 g/cm3 (20 °C)  |
| Solubili<br>Wate              | ty(ies)<br>er solubility                  | : | practically insoluble (20 °C)                             |
| Solul                         | oility in other solvents                  | : | No data is available on the product itself.               |
| Partition<br>octanol          | n coefficient: n-<br>/water               | : | No data is available on the product itself.               |
| Auto-ig                       | nition temperature                        | : | No data is available on the product itself.               |

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| Deco           | mposition temperature                        | : > 250             | O°C                                    |   |
| Visco          | osity  | : No d              | ata is availa                          | able on the product itself.                                       |
| 9.2 Other      | information                                  |                     |  |   |
| No da          | ata available                                |                     |  |   |
| SECTIO         | N 10: Stability and re                       | activity            |  |   |
| 10.1 Read      | •  |                     |  |   |
| No da          | angerous reaction know                       | n under cor         | nditions of r                          | normal use.   |
|                | mical stability<br>le under normal condition | ins.                |  |   |
| 10.3 Poss      | sibility of hazardous re                     | actions             |  |   |
| Haza           | rdous reactions                              | : No h              | azards to b                            | e specially mentioned.  |
| 10.4 Con       | ditions to avoid                             |                     |  |   |
| Conc           | litions to avoid                             | : None              | e known.                               |   |
| 10.5 Inco      | mpatible materials                           |                     |  |   |
| Mate           | rials to avoid                               | Stron               | ng acids<br>ng bases<br>ng oxidizing   | agents  |
| 10.6 Haza      | ardous decomposition                         | products            |  |   |
|                | rdous decomposition                          | : carbo<br>carbo    | on dioxide<br>on monoxic<br>gen oxides |   |

# **SECTION 11: Toxicological information**

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

| Acute toxicity                |   |
|-------------------------------|---|
| Acute oral toxicity - Product | : Acute toxicity estimate : > 2 000 mg/kg<br>Method: Calculation method |
| Acute inhalation toxicity     | : No data available   |

### Components:

| Fatty acids, C18-unsatd., dime triethylenetetramine: | ers, oligomeric reaction products with tall-oil fatty acids and                                       |
|--|---|
| Acute dermal toxicity                                | <ul> <li>LD50 (Rat, male and female): &gt; 2 000 mg/kg<br/>Method: OECD Test Guideline 402</li> </ul> |

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Acute dermal toxicity

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#### 2,4,6-tris(dimethylaminomethyl)phenol:

: LD50 (Rat, male): > 1 ml/kg

Assessment: The substance or mixture has no acute dermal toxicity

Acute toxicity (other routes of : No data available administration)

#### Skin corrosion/irritation

#### Product:

Species: Rabbit Assessment: Irritant Result: Irritating to skin.

#### Serious eye damage/eye irritation

#### Components:

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine: Species: Rabbit Assessment: Severe eye irritation Method: OECD Test Guideline 405 Result: Irreversible effects on the eye

2,4,6-tris(dimethylaminomethyl)phenol: Species: Rabbit Assessment: Corrosive Method: Other guidelines Result: Corrosive

#### Respiratory or skin sensitisation

#### Components:

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine: Exposure routes: Skin Species: Mouse Assessment: The product is a skin sensitiser, sub-category 1A. Method: OECD Test Guideline 429 Result: Causes sensitisation.

2,4,6-tris(dimethylaminomethyl)phenol: Exposure routes: Skin Species: Guinea pig Method: OECD Test Guideline 406 Result: Does not cause skin sensitisation.

Assessment:

No data available





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### Germ cell mutagenicity

# Components:

| Fatty acids, C18-unsatd., dime triethylenetetramine: | rs, oligomeric reaction products with tall-oil fatty acids and   |
|--|--|
| Genotoxicity in vitro                                | : Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 487<br>Result: negative                                 |
|  | : Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 471<br>Result: negative                                 |
|  | : Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 476<br>Result: negative                                 |
| 2,4,6-tris(dimethylaminomethyl                       | )phenol:   |
| Genotoxicity in vitro                                | : Concentration: 5000 ug/plate<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 471<br>Result: negative |
|  | : Concentration: 2500 ug/plate<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 473<br>Result: negative |
|  | : Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 476<br>Result: negative                                 |
| Genotoxicity in vivo                                 | : No data available  |
| Germ cell mutagenicity-<br>Assessment                | : No data available  |
| Carcinogenicity                                      |  |
| No data available                                    |  |
| Carcinogenicity -<br>Assessment                      | : No data available  |
| Reproductive toxicity                                |  |
| Components:  |  |

according to Regulation (EC) No. 1907/2006

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|             |   | ids, C18-unsatd., dimo<br>netetramine <b>:</b>                  | ers, oligomeric reaction                                  | n products with tall-oil fatty acids and                          |
|             |   | on fertility  | : Species: Rat, ma<br>Application Route<br>Method: OECD T | : Oral  |
|             | 2,4,6-tri   | s(dimethylaminomethy  | Species: Rat, ma<br>Application Route<br>Method: OECD T   | : Oral  |
|             | Effects develop   | on foetal<br>ment   | : No data available                                       |   |
|             | Reprodu<br>Assessr  | uctive toxicity -<br>nent                                       | : No data available                                       |   |
|             | <b>STOT</b> -   | single exposure   |   |   |
|             | No data   | available   |   |   |
|             | <b>STOT</b> -   | repeated exposure   |   |   |
|             | No data   | available   |   |   |
|             | Repeate   | ed dose toxicity  |   |   |
|             | Compo   | nents:  |   |   |
|             | Fatty ac<br>triethyle<br>Species<br>NOAEL<br>Applicat<br>Exposu | ids, C18-unsatd., dimo<br>netetramine:<br>: Rat, male and femal | e   | n products with tall-oil fatty acids and                          |
|             | Species   | s(dimethylaminomethy<br>: Rat, male and femal<br>15 mg/kg       |   |   |

Application Route: Ingestion Exposure time: 1 032 hNumber of exposures: 7 d Method: Subacute toxicity

Repeated dose toxicity - : No data available Assessment

Aspiration toxicity

No data available

#### 11.2 Information on other hazards

# Endocrine disrupting properties

#### Product:





according to Regulation (EC) No. 1907/2006

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| A             | ssessment  | considered to<br>to REACH Arti | e/mixture does not contain components<br>have endocrine disrupting properties according<br>cle 57(f) or Commission Delegated regulation<br>00 or Commission Regulation (EU) 2018/605 at<br>or higher |
| E             | xperience with humar                             | exposure                       |  |
| G             | eneral Information:                              | No data available              |  |
|               |  |                                |  |
| In            | halation:  | No data available              |  |
|               |  |                                |  |
|               |  |                                |  |
| SI            | kin contact:                                     | No data available              |  |
|               |  |                                |  |
| Ey            | ye contact:                                      | No data available              |  |
|               |  |                                |  |
| In            | gestion:   | No data available              |  |
|               |  |                                |  |
| _             |  | <b>-</b>                       |  |
|               | <b>oxicology, Metabolisn</b><br>o data available | n, Distribution                |  |
|               |  |                                |  |
| N             | eurological effects                              |                                |  |
| N             | o data available                                 |                                |  |
| _             |  |                                |  |
|               | urther information                               | Nuclear and the                |  |
| In            | gestion:   | No data available              |  |
|               |  |                                |  |
|               |  |                                |  |

# **SECTION 12: Ecological information**

### 12.1 Toxicity

### Components:

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine:

| Toxicity to fish                                    | <ul> <li>LC50 (Brachydanio rerio (zebrafish)): 7,07 mg/l<br/>Exposure time: 96 h<br/>Test substance: Fresh water<br/>Method: OECD Test Guideline 203</li> </ul> |
|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Daphnia magna (Water flea)): 7,07 mg/l<br>Exposure time: 48 h<br>Test Type: static test   |

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|                                  |                                     |                                       |  |  | Print Date 10.03.2023   |  |  |
|                                  |                                     |                                       |  | Test substance: I<br>Method: OECD T  | Fresh water<br>est Guideline 202                                  |  |  |
| Toxicity to algae/aquatic plants |                                     | :                                     | <ul> <li>EC50 (Selenastrum capricornutum (green algae)): 4,34 mg/l<br/>Exposure time: 72 h<br/>Test Type: static test<br/>Test substance: Fresh water<br/>Method: OECD Test Guideline 201</li> </ul> |  |   |  |  |
| То                               | oxicity                             | to microorganisms                     | :  | EC50 (activated s<br>Exposure time: 3<br>Test Type: static<br>Test substance: I<br>Method: OECD T  | h<br>test   |  |  |
| 2,4                              | 4,6-tri                             | s(dimethylaminomethy                  | /l)pl  | nenol:   |   |  |  |
| Toxicity to fish                 |                                     | :                                     | : LC50 (Cyprinus carpio (Carp)): 175 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Test substance: Fresh water  |  |   |  |  |
|                                  |                                     | to daphnia and other<br>invertebrates | :  | LC50 (Palaeomo<br>End point: mortal<br>Exposure time: 9<br>Test Type: static<br>Analytical monito<br>Test substance: I   | 6 h<br>test<br>ring: no   |  |  |
|                                  | Toxicity to algae/aquatic<br>plants |                                       | :  | <ul> <li>ErC50 (Desmodesmus subspicatus (green algae)): 8<br/>Exposure time: 72 h<br/>Test Type: static test<br/>Analytical monitoring: yes<br/>Test substance: Fresh water<br/>Method: OECD Test Guideline 201</li> </ul> |   |  |  |
|                                  |                                     |                                       | NOEC (Desmodesmus subspicatus (green algae)):<br>Exposure time: 72 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Test substance: Fresh water<br>Method: OECD Test Guideline 201       |  | 2 h<br>test<br>ring: yes<br>Fresh water                           |  |  |
| 40 0 D.                          | • .                                 |                                       |  |  |   |  |  |

#### 12.2 Persistence and degradability

### Components:

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine: Biodegradability : Inoculum: activated sludge

ability : Inoculum: activated sludge Result: Not readily biodegradable. Biodegradation: 0 - 70 % Exposure time: 74 d Method: OECD Test Guideline 301B

2,4,6-tris(dimethylaminomethyl)phenol:



| according        | to Regulation (EC) No. 19                | <b>HUNI SIVIAN</b>  |   |  |  |  |
|------------------|--|---|---|--|--|--|
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| ARAL             | DITE® 2033 B                             |   |   |  |  |  |
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|                  |  |   | Print Date 10.03.2023   |  |  |  |
| Biodegradability |  | Inoculum: activ<br>Concentration:<br>Result: Not bic<br>Biodegradatior<br>Exposure time | <ul> <li>Test Type: aerobic<br/>Inoculum: activated sludge, non-adapted<br/>Concentration: 2 mg/l<br/>Result: Not biodegradable<br/>Biodegradation: 4 %<br/>Exposure time: 28 d<br/>Method: OECD Test Guideline 301D</li> </ul> |  |  |  |
| 12.3 Bioa        | ccumulative potenti                      | al  |   |  |  |  |
| -                | ponents:                                 |   |   |  |  |  |
|                  | acids, C18-unsatd., o<br>ylenetetramine: | limers, oligomeric reac   | ction products with tall-oil fatty acids and  |  |  |  |
| Partit           | ion coefficient: n-                      | : log Pow: 10,34  | 4   |  |  |  |
|                  | iol/water<br>-tris(dimethylaminom        | ethyl)phenol:   |   |  |  |  |
| Partit           | ion coefficient: n-<br>ol/water          | : Pow: >= 0,219<br>log Pow: -0,66   | : Pow: >= 0,219 (21,5 °C)<br>log Pow: -0,66 (21,5 °C)<br>Method: OPPTS 830.7550   |  |  |  |
| 12.4 Mobi        | ility in soil                            |   |   |  |  |  |
| No da            | ata available                            |   |   |  |  |  |
| 12.5 Resu        | Its of PBT and vPv                       | 3 assessment  |   |  |  |  |
| Prod             | uct:                                     |   |   |  |  |  |
| Assessment       |  | to be either pe   | e/mixture contains no components considered<br>rsistent, bioaccumulative and toxic (PBT), or<br>t and very bioaccumulative (vPvB) at levels of<br>r   |  |  |  |
|                  |  |   |   |  |  |  |

### 12.6 Endocrine disrupting properties

| Product:   |   |  |
|--|---|--|
| Assessment                                       | : | The substance/mixture does not contain components<br>considered to have endocrine disrupting properties according<br>to REACH Article 57(f) or Commission Delegated regulation<br>(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at<br>levels of 0.1% or higher |
| 12.7 Other adverse effects                       |   |  |
| Product:<br>Additional ecological<br>information | : | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.   |

### **SECTION 13: Disposal considerations**

| 13.1 Waste treatment methods | 5 |
|------------------------------|---|
|------------------------------|---|

Product

Dispose of contents and container in accordance with all local, : regional, national and international regulations. Do not dispose of waste into sewer.

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|                        |   |                                  | Print Date 10.03.2023   |  |  |  |
|                        |   |                                  | ontaminate ponds, waterways or ditches with or used container.                                |  |  |  |
| Contaminated packaging |   | Dispose                          | Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers. |  |  |  |
| SECTION                | 14: Transport inforr  | nation                           |   |  |  |  |
| 14.1 UN n              | umber or ID number  |                                  |   |  |  |  |
| ADN                    |   | : UN 3082                        |   |  |  |  |
| ADR                    |   | : UN 3082                        |   |  |  |  |
| RID                    |   | : UN 3082                        |   |  |  |  |
| IMDG                   | ì   | : UN 3082                        |   |  |  |  |
| ΙΑΤΑ                   |   | : UN 3082                        |   |  |  |  |
| 14.2 UN p              | roper shipping name   |                                  |   |  |  |  |
| ADN                    |   | : ENVIROI<br>N.O.S.<br>(polyamic | NMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>de resin)   |  |  |  |
| ADR                    |   | : ENVIROI<br>N.O.S.<br>(polyamic | NMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>de resin)   |  |  |  |
| RID                    |   | : ENVIROI<br>N.O.S.<br>(polyamic | NMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>de resin)   |  |  |  |
| IMDG                   | ì   | : ENVIROI<br>N.O.S.<br>(polyamic | NMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>de resin)   |  |  |  |
| ΙΑΤΑ                   |   | : Environm<br>(polyamic          | nentally hazardous substance, liquid, n.o.s.<br>de resin)                                     |  |  |  |
| 14.3 Trans             | sport hazard class(es)                                      |                                  |   |  |  |  |
| ADN                    |   | : 9                              |   |  |  |  |
| ADR                    |   | : 9                              |   |  |  |  |
| RID                    |   | : 9                              |   |  |  |  |
| IMDG                   | ì   | : 9                              |   |  |  |  |
| ΙΑΤΑ                   |   | : 9                              |   |  |  |  |
| 14.4 Pack              | ing group   |                                  |   |  |  |  |
| Class                  | ng group<br>ification Code<br>rd Identification Number<br>s | : III<br>: M6<br>: 90<br>: 9     |   |  |  |  |

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### ADR

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|   | Packing group<br>Classification Code<br>Hazard Identification Number<br>Labels<br>Tunnel restriction code              |             | III<br>M6<br>90<br>9<br>(-)         |
|---|--|-------------|-------------------------------------|
|   | <b>RID</b><br>Packing group<br>Classification Code<br>Hazard Identification Number<br>Labels                           | : :         | III<br>M6<br>90<br>9                |
|   | IMDG<br>Packing group<br>Labels<br>EmS Code  | :           | III<br>9<br>F-A, S-F                |
|   | IATA (Cargo)<br>Packing instruction (cargo<br>aircraft)<br>Packing instruction (LQ)<br>Packing group<br>Labels         | :           | 964<br>Y964<br>III<br>Miscellaneous |
|   | IATA (Passenger)<br>Packing instruction<br>(passenger aircraft)<br>Packing instruction (LQ)<br>Packing group<br>Labels | :<br>:<br>: | 964<br>Y964<br>III<br>Miscellaneous |
| 5 | Environmental hazards  |             |                                     |
|   |  |             |                                     |

#### 14.5

#### ADN

| Environmentally hazardous                     | : | yes |  |
|---|---|-----|--|
| ADR<br>Environmentally hazardous              | : | yes |  |
| <b>RID</b><br>Environmentally hazardous       | : | yes |  |
| IMDG<br>Marine pollutant                      | : | yes |  |
| IATA (Passenger)<br>Environmentally hazardous | : | yes |  |
| IATA (Cargo)<br>Environmentally hazardous     | : | yes |  |

#### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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### **SECTION 15: Regulatory information**

| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture |     |                           |  |  |  |
|---|-----|---------------------------|--|--|--|
| REACH - List of substances subject to authorisati<br>(Annex XIV)                                    |     |                           | :  | Not applicable                         |  |
| REACH - Candidate List of Su<br>Concern for Authorisation (Art                                      |     | :                         | This product does not contain<br>substances of very high concern<br>(Regulation (EC) No<br>1907/2006 (REACH), Article 57). |  |  |
| Seveso III: Directive 2012/18/8<br>major-accident hazards involv<br>E2                              |     |                           | ent  | t and of the Council on the control of |  |
| Occupational Illnesses (R-<br>461-3, France)  | :   | 49, 84                    |  |  |  |
| Installations classified for the protection of the environment (Environment Code R511-9)            | :   | 4511                      |  |  |  |
| Other regulations:<br>Take note of Directive 94/33/E<br>regulations, where applicable.              | C o | on the protection of youn | g p  | eople at work or stricter national     |  |
| The components of this pro-   | duc | t are reported in the fo  | llo  | wing inventories:                      |  |
| DSL   | :   | All components of this p  | pro  | duct are on the Canadian DSL           |  |
| AIIC  | :   | On the inventory, or in a | cor  | npliance with the inventory            |  |
| NZIoC   | :   | On the inventory, or in a | cor  | npliance with the inventory            |  |
| ENCS  | :   | On the inventory, or in a | cor  | npliance with the inventory            |  |
| KECI  | :   | On the inventory, or in a | cor  | npliance with the inventory            |  |
| PICCS   | :   | On the inventory, or in a | cor  | npliance with the inventory            |  |
| IECSC   | :   | On the inventory, or in a | cor  | npliance with the inventory            |  |
| TCSI  | :   | On the inventory, or in a | cor  | npliance with the inventory            |  |



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TSCA

: All substances listed as active on the TSCA inventory

#### Inventories

AICS (Australia), AIIC (Australia), DSL (Canada), IECSC (China), ENCS (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States of America (USA))

#### 15.2 Chemical safety assessment

Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

### **SECTION 16: Other information**

| Full | text | of | <b>H-Statements</b> |
|------|------|----|---------------------|
|------|------|----|---------------------|

|  | •   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| H302<br>H314<br>H315<br>H317<br>H318<br>H411   | : Causes sever<br>: Causes skin ir<br>: May cause an<br>: Causes seriou   | Harmful if swallowed.<br>Causes severe skin burns and eye damage.<br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye damage.<br>Toxic to aquatic life with long lasting effects. |  |  |  |  |
| Full text of other abbreviations   |   |  |  |  |  |  |
| Acute Tox.<br>Aquatic Chronic<br>Eye Dam.<br>Skin Corr.<br>Skin Irrit.<br>Skin Sens. | <ul> <li>Acute toxicity</li> <li>Chronic aquat</li> <li>Serious eye date</li> <li>Skin corrosion</li> <li>Skin irritation</li> <li>Skin sensitisat</li> </ul> | amage  |  |  |  |  |
| Further information  |   |  |  |  |  |  |
| Classification of the mix  | cture:  | Classification procedure:  |  |  |  |  |
| Skin Irrit. 2  | H315  | Based on product data or assessment  |  |  |  |  |
| Eye Dam. 1   | H318  | Calculation method   |  |  |  |  |
| Skin Sens. 1   | H317  | Calculation method   |  |  |  |  |
| Aquatic Chronic 2  | H411  | Calculation method   |  |  |  |  |
|  |   |  |  |  |  |  |

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THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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