

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2020 HARDENER

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: - |
| 1.0 | 04.04.2018 | 400001007685 | Date of first issue: 04.04.2018 |

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

1.1 Product identifier

Trade name : ARALDITE® 2020 HARDENER

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

Use of the Substance/Mixture : Adhesives

Recommended restrictions on use : For Research and Development or Export Only.

1.3 Details of the supplier of the safety data sheet

Company : Huntsman Advanced Materials (Europe)BVBA
Address : Everslaan 45
3078 Everberg
Belgium
Telephone : +41 61 299 20 41
Telefax : +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 : Berlin: 0049 30 19 24 0 & 0049 30 30 68 6 7 11
Bonn: 0049 228 19 27 0 & 0049 228 28 7 3 32 11
Erfurt: 0049 361 73 07 30
Freiburg: 0049 761 16 24 0
Göttingen: 0049 51 19 24 0 & 0049 551 38 31 80
Homburg: 0049 6841 19 24 0
Mainz: 0049 6131 19 24 0 & 0049 6131 23 24 66
München: 0049 89 19 24 0
Nürnberg: 0049 911 39 8 2 45 1
EUROPE: +32 35 75 1234
France ORFILA: +33(0)145425959
ASIA: +65 6336-6011
China: +86 20 39377888
+86 532 83889090
India: + 91 22 42 87 5333
Australia: 1800 786 152
New Zealand: 0800 767 437
USA: +1/800/424.9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4

H302: Harmful if swallowed.

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Skin corrosion, Sub-category 1A H314: Causes severe skin burns and eye damage.
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 3 H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P261 Avoid breathing mist or vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + 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.

Hazardous components which must be listed on the label:

3-aminomethyl-3,5,5-trimethylcyclohexylamine

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

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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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Amines

Hazardous components

| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (% w/w) |
|--|--|---|--------------------------|
| 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2 220-666-8 612-067-00-9 01-2119514687-32 | Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 3; H412 | >= 30 - < 50 |
| Trimethylhexane-1,6-diamine | 25513-64-8 247-063-2 01-2119560598-25 | Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 | >= 20 - < 30 |

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.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.

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Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Harmful if swallowed or in contact with skin.
May cause an allergic skin reaction.
Causes serious eye damage.
Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Specific extinguishing methods : No data is available on the product itself.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in

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accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

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

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours or spray mist.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice for diagnostics. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage : Keep container tightly closed in a dry and well-ventilated

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areas and containers place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Storage class (TRGS 510) : 8A, Combustible, corrosive hazardous materials

Recommended storage temperature : 2 - 40 °C

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

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 |
|--|-----------|-----------------|---------------------------------------|------------------------|
| 3-aminomethyl-3,5,5-trimethylcyclohexylamine | Workers | Inhalation | Systemic effects, Short-term exposure | 20,1 mg/m ³ |
| | Workers | Inhalation | Local effects, Short-term exposure | 20,1 mg/m ³ |
| | Consumers | Oral | Systemic effects, Long-term exposure | 0,526 mg/kg bw/day |

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

| Substance name | Environmental Compartment | Value |
|--|---------------------------|-------------|
| 3-aminomethyl-3,5,5-trimethylcyclohexylamine | Fresh water | 0,06 mg/l |
| Remarks: | Assessment Factors | |
| | Marine water | 0,006 mg/l |
| | Assessment Factors | |
| | Freshwater - intermittent | 0,23 mg/l |
| | Assessment Factors | |
| | Sewage treatment plant | 3,18 mg/l |
| | Assessment Factors | |
| | Fresh water sediment | 5,784 mg/kg |

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| | | |
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| | Assessment Factors | |
| | Marine sediment | 0,578 mg/kg |
| | Assessment Factors | |
| | Soil | 1,121 mg/kg |
| | Assessment Factors | |
| | Secondary Poisoning | |
| | Assessment Factors | |

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Material : butyl-rubber
Break through time : > 8 h

Material : Nitrile rubber
Break through time : 10 - 480 min

Material : Ethyl Vinyl Alcohol Laminate (EVAL)
Break through time : > 8 h

Remarks : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines
Recommended Filter type:
Combined particulates and organic vapour type

Filter type : Filter type A-P

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|---|
| Appearance | : liquid |
| Colour | : clear light yellow |
| Odour | : amine-like |
| Odour Threshold | : No data is available on the product itself. |
| pH | : No data is available on the product itself. |
| Freezing point | : No data is available on the product itself. |
| Melting point | : No data is available on the product itself. |
| Boiling point | : > 200 °C |
| Flash point | : > 120 °C Method: Pensky-Martens closed cup |
| Evaporation rate | : No data is available on the product itself. |
| Flammability (solid, gas) | : No data is available on the product itself. |
| Burning rate | : No data is available on the product itself. |
| Upper explosion limit / Upper flammability limit | : No data is available on the product itself. |
| Lower explosion limit / Lower flammability limit | : No data is available on the product itself. |
| Vapour pressure | : < 0,06 hPa (20 °C) |
| Relative vapour density | : No data is available on the product itself. |
| Relative density | : No data is available on the product itself. |
| Density | : 0,95 g/cm ³ (25 °C) |
| Solubility(ies) | |
| Water solubility | : partly soluble (20 °C) |
| Solubility in other solvents | : No data is available on the product itself. |
| Partition coefficient: n-octanol/water | : No data is available on the product itself. |
| Auto-ignition temperature | : No data is available on the product itself. |

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Decomposition temperature : > 200 °C

Viscosity
Viscosity, dynamic : 150 mPa.s (25 °C)

Explosive properties : No data is available on the product itself.

Oxidizing properties : No data is available on the product itself.

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : Strong acids and strong bases
Strong oxidizing agents

10.6 Hazardous decomposition products

Carbon oxides
Nitrogen oxides (NO_x)
Burning produces noxious and toxic fumes.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity - Product : Acute toxicity estimate : 1 484 mg/kg
Method: Calculation method

Acute inhalation toxicity : No data available

Acute dermal toxicity - Product : Acute toxicity estimate : > 2 000 mg/kg
Method: Calculation method

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

Skin corrosion/irritation

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Species: Rabbit

Assessment: Causes burns.

Result: Causes burns.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Species: Rabbit

Result: Corrosive after 3 minutes or less of exposure

Serious eye damage/eye irritation

Components:

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Species: Rabbit

Method: OECD Test Guideline 405

Result: Corrosive

Respiratory or skin sensitisation

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Exposure routes: Skin

Species: Guinea pig

Assessment: May cause sensitisation by skin contact.

Method: OECD Test Guideline 406

Result: Causes sensitisation.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Exposure routes: Skin

Species: Guinea pig

Method: OECD Test Guideline 406

Result: The product is a skin sensitiser, sub-category 1A.

Assessment: No data available

Germ cell mutagenicity

Components:

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium

Concentration: 5000 ug/plate

Metabolic activation: with and without metabolic activation

Method: Directive 67/548/EEC, Annex, B.13/14

Result: negative

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: Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

: Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary cells
Concentration: 2 mg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Components:

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Genotoxicity in vivo : Test species: Chinese hamster (male and female)
Cell type: Bone marrow
Application Route: Oral
Dose: 825 - 1000 mg/kg
Method: OECD Test Guideline 474
Result: negative

Test Type: In vivo micronucleus test
Test species: Mouse (male and female)
Application Route: Oral
Dose: 850 - 1000 mg/kg
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

No data available

Carcinogenicity - Assessment : No data available

Reproductive toxicity

Components:

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Dose: 10, 60, 120 mg/kg bw/day
Method: OECD Test Guideline 416
Result: No effects on fertility and early embryonic development were detected.

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

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Effects on foetal development : Species: Rat, female
Application Route: Oral
General Toxicity Maternal: No-observed-effect level: 50 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:
Species: Rabbit, female
Application Route: Oral
General Toxicity Maternal: No observed adverse effect level: 50 000 ppm
Result: No teratogenic effects

Reproductive toxicity - Assessment : No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Repeated dose toxicity

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Species: Rat, male and female

NOEC: 60 mg/kg, 200

Application Route: Ingestion

Test atmosphere: dust/mist

Exposure time: 216 h Number of exposures: 6 h

Method: Subchronic toxicity

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Species: Rat, male and female

NOAEL: 10

Application Route: Ingestion

Exposure time: 13 Weeks Number of exposures: Daily

Dose: 10, 60, 180mg/kg bw

Target Organs: Liver

Species: Rat, male and female

LOAEL: 60

Application Route: Ingestion

Exposure time: 13 Weeks Number of exposures: Daily

Dose: 10, 60, 180mg/kg bw

Target Organs: Liver

Repeated dose toxicity - Assessment : No data available

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Aspiration toxicity

No data available

Experience with human exposure

General Information: No data available

Inhalation: No data available

Skin contact: No data available

Eye contact: No data available

Ingestion: No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

Ingestion: No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 110 mg/l
Exposure time: 96 h
Test Type: semi-static test
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.1.

Toxicity to daphnia and other aquatic invertebrates : EC50 : 23 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

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- Toxicity to algae : EC50 : 37 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.3.
- Toxicity to microorganisms : EC10 : 1 120 mg/l
Exposure time: 18 h
Method: Measured
- (Pseudomonas putida): 1 120 mg/l
Exposure time: 18 h
Test Type: static test
Test substance: Fresh water
- 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:
- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 174 mg/l
Exposure time: 48 h
Method: DIN 38412
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 31,5 mg/l
Exposure time: 24 h
Method: DIN 38412
- Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (algae)): 43,5 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- EC50 (Pseudokirchneriella subcapitata (algae)): 37,1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- NOEC (Pseudokirchneriella subcapitata (algae)): 16 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- Toxicity to microorganisms : IC50 (Pseudomonas putida): 89 mg/l
Exposure time: 17 h
- Toxicity to fish (Chronic toxicity) : NOEC: 10,9 mg/l
Exposure time: 30 d
Species: Brachydanio rerio (zebrafish)
Method: OECD Test Guideline 210
- Lowest Observed Effect Concentration: 10,9 mg/l
Exposure time: 30 d
Species: Brachydanio rerio (zebrafish)
Method: OECD Test Guideline 210
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1,02 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
- Lowest Observed Effect Concentration: 1,02 mg/l

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Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

Toxicity to soil dwelling organisms : NOEC: $\geq 1\ 000$ mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 222

EC50: $\geq 1\ 000$ mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 222

12.2 Persistence and degradability

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Biodegradability : Inoculum: activated sludge
Concentration: 6,9 mg/l
Result: Not readily biodegradable.
Biodegradation: 8 %
Exposure time: 28 d
Method: Directive 67/548/EEC Annex V, C.4.A.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Biodegradability : Inoculum: activated sludge
Concentration: 11,4 mg/l
Result: Not readily biodegradable.
Biodegradation: 7 %
Exposure time: 28 d

12.3 Bioaccumulative potential

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Partition coefficient: n-octanol/water : log Pow: 0,99 (23 °C)
pH: 6,34
Method: OECD Test Guideline 107

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Partition coefficient: n-octanol/water : log Pow: -0,3 (25 °C)
Method: OECD Test Guideline 117

12.4 Mobility in soil

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Distribution among environmental compartments : Koc: 928

12.5 Results of PBT and vPvB assessment

Product:

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Assessment : 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..

12.6 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: Transport information

IATA

14.1 UN number : UN 2735

14.2 UN proper shipping name : Amines, liquid, corrosive, n.o.s.
(TRIMETHYLHEXAMETHYLENEDIAMINE, ISOPHORONE DIAMINE)

14.3 Transport hazard class(es) : 8

14.4 Packing group : III

Labels : Corrosive

Packing instruction (cargo aircraft) : 856

Packing instruction (passenger aircraft) : 852

IMDG

14.1 UN number : UN 2735

14.2 UN proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S.
(TRIMETHYLHEXAMETHYLENEDIAMINE, ISOPHORONE DIAMINE)

14.3 Transport hazard class(es) : 8

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14.4 Packing group : III
Labels : 8
EmS Code : F-A, S-B

14.5 Environmental hazards

Marine pollutant : no

ADR

14.1 UN number : UN 2735

14.2 UN proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S.

(TRIMETHYLHEXAMETHYLENEDIAMINE, ISOPHORONE DIAMINE)

14.3 Transport hazard class(es) : 8

14.4 Packing group : III

Labels : 8

14.5 Environmental hazards

Environmentally hazardous : no

RID

14.1 UN number : UN 2735

14.2 UN proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S.

(TRIMETHYLHEXAMETHYLENEDIAMINE, ISOPHORONE DIAMINE)

14.3 Transport hazard class(es) : 8

14.4 Packing group : III

Labels : 8

14.5 Environmental hazards

Environmentally hazardous : no

Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - List of substances subject to authorisation - Future sunset date : Not applicable

Water contaminating class (Germany) : WGK 2 significantly water endangering

TA Luft List (Germany) : Total dust:

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- Not applicable
- : Inorganic substances in powdered form:
Not applicable
- : Inorganic substances in vapour or gaseous form:
Not applicable
- : Organic Substances:
Not applicable
- : Carcinogenic substances:
Not applicable
- : Mutagenic:
Not applicable
- : Toxic to reproduction:
Not applicable

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

The components of this product are reported in the following inventories:

- DSL : This product contains one or several components that are not on the Canadian DSL nor NDSL.

- AICS : Low volume exemption

- NZIoC : On the inventory, or in compliance with the inventory

- ENCS : Update: manually maintained
On the inventory, or in compliance with the inventory

- KECI : Not in compliance with the inventory

- PICCS : Not in compliance with the inventory

- IECSC : Not in compliance with the inventory

- TCSI : On the inventory, or in compliance with the inventory

- TSCA : Not On TSCA Inventory

Inventories

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

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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 H-Statements

| | |
|------|--|
| H302 | : Harmful if swallowed. |
| H312 | : Harmful in contact with skin. |
| H314 | : Causes severe skin burns and eye damage. |
| H317 | : May cause an allergic skin reaction. |
| H318 | : Causes serious eye damage. |
| H412 | : Harmful to aquatic life with long lasting effects. |

Full text of other abbreviations

| | |
|-----------------|----------------------------|
| Acute Tox. | : Acute toxicity |
| Aquatic Chronic | : Chronic aquatic toxicity |
| Eye Dam. | : Serious eye damage |
| Skin Corr. | : Skin corrosion |
| Skin Sens. | : Skin sensitisation |

Further information

Classification of the mixture:

| | |
|-------------------|------|
| Acute Tox. 4 | H302 |
| Skin Corr. 1A | H314 |
| Eye Dam. 1 | H318 |
| Skin Sens. 1 | H317 |
| Aquatic Chronic 3 | H412 |

Classification procedure:

| |
|--------------------|
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |
| 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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