

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**HUNTSMAN**

Enriching lives through innovation

## ARALDITE® 2020 HARDENER

Version 1.0      Revision Date: 04.04.2018      SDS Number: 400001007685      Date of last issue: -  
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 <sup>3</sup>
	Workers	Inhalation	Local effects, Short-term exposure	20,1 mg/m <sup>3</sup>
	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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	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 <sup>3</sup> (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<sub>x</sub>)  
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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Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	04.04.2018	400001007685	Date of first issue: 04.04.2018

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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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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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IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

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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