

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**HUNTSMAN**

Enriching lives through innovation

## ARALDITE® 2011 HARDENER US

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	19.03.2018	400001010612	Date of first issue: 19.03.2018

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

#### 1.1 Product identifier

Trade name : ARALDITE® 2011 HARDENER US

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

Use of the Substance/Mixture : Hardener

#### 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 : 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)

Skin corrosion, Sub-category 1C	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.

#### 2.2 Label elements

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

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Hazard pictograms : 

Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.

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

**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
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:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

Amines, polyethylenepoly-, triethylenetetramine fraction

### 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

#### Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine	10563-29-8 234-148-4 01-2119970376-29	Acute Tox. 4; H302 Skin Corr. 1A; H314 Skin Sens. 1B; H317	>= 5 - < 9.65
Amines, polyethylenepoly-,	90640-67-8	Acute Tox. 4; H302	>= 3 - <

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triethylenetetramine fraction	292-588-2 01-2119487919-13	Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 3; H412	5
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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 : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.  
If on skin, rinse well with water.  
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.  
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.  
Take victim immediately to hospital.

#### 4.2 Most important symptoms and effects, both acute and delayed

None known.

#### 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.

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**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 accordance with local regulations.

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**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions    : Use personal protective equipment.  
Evacuate personnel to safe areas.  
Ensure adequate ventilation.  
In case of inadequate ventilation wear respiratory protection.

**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.

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### 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/dust.  
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 : 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 areas and containers : Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

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:**

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Substance name	End Use	Exposure routes	Potential health effects	Value
N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine	Workers	Inhalation	Long-term systemic effects	3.7 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	7.5 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	3.7 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	7.5 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	0.67 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0.65 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	0.65 mg/m <sup>3</sup>
	Consumers	Oral	Long-term systemic effects	0.2 mg/kg
Amines, polyethylenepoly-, triethylenetetramine fraction	Workers	Inhalation	Acute systemic effects	5380 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	0.57 mg/kg
	Workers	Inhalation	Long-term systemic effects	1 mg/m <sup>3</sup>
	Workers	Dermal	Long-term local effects	0.028 mg/m <sup>3</sup>
	Consumers	Dermal	Acute systemic effects	8 mg/kg
	Consumers	Inhalation	Acute systemic effects	1600 mg/m <sup>3</sup>
	Consumers	Oral	Acute systemic effects	20 mg/kg
	Consumers	Dermal	Acute local effects	1 mg/cm <sup>2</sup>
	Consumers	Dermal	Acute local effects	0.25 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0.29 mg/m <sup>3</sup>
	Consumers	Oral	Long-term systemic effects	0.41 mg/kg
	Consumers	Dermal	Long-term local effects	0.43 mg/cm <sup>2</sup>

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

Substance name	Environmental Compartment	Value
N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine	Fresh water	9.2 µg/l
Remarks:	Assessment Factors	
	Marine water	0.92 µg/l

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	Assessment Factors	
	Freshwater - intermittent	92 µg/l
	Assessment Factors	
	Sewage treatment plant	18.1 mg/l
	Assessment Factors	
	Fresh water sediment	0.0336 mg/kg
	Equilibrium method	
	Marine sediment	0.00336 mg/kg
	Equilibrium method	
	Soil	0.00132 mg/kg
	Equilibrium method	
Amines, polyethylenepoly-, triethylenetetramine fraction	Fresh water	190 µg/l
	Assessment Factors	
	Fresh water sediment	95.9 mg/kg
	Equilibrium method	
	Marine water	38 µg/l
	Assessment Factors	
	Freshwater - intermittent	200 µg/l
	Assessment Factors	
	Marine sediment	19.2 mg/kg
	Equilibrium method	
	Soil	19.1 mg/kg
	Equilibrium method	
	Sewage treatment plant	4.25 mg/l
	Assessment Factors	
	Secondary Poisoning	0.18 mg/kg
	Assessment Factors	

### 8.2 Exposure controls

#### Engineering measures

Effective exhaust ventilation system

#### 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.  
Ensure that eyewash stations and safety showers are close to the workstation location.

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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

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : light yellow

Odour : slight

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



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Flash point : 110 °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 : 0.04 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 : practically insoluble (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.

Decomposition temperature : > 200 °C

Viscosity  
Viscosity, dynamic : 20,000 - 35,000 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 dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable under normal conditions.

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### 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

Nitrogen oxides (NOx)  
Carbon dioxide (CO2)  
Carbon monoxide  
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 : > 2,000 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

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

#### Skin corrosion/irritation

##### Product:

Result: Corrosive after 1 to 4 hours of exposure

#### Serious eye damage/eye irritation

##### Product:

Species: Rabbit  
Assessment: Corrosive  
Result: Corrosive

Remarks: May cause irreversible eye damage.

#### Respiratory or skin sensitisation

##### Product:

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Remarks: Causes sensitisation.

Assessment: No data available

### Germ cell mutagenicity

#### Components:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine:

Genotoxicity in vitro : Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 487  
Result: negative

: Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

: Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

Amines, polyethylenepoly-, triethylenetetramine fraction:

Genotoxicity in vitro : Concentration: 0 - 200 µg/L  
Metabolic activation: negative  
Method: OECD Test Guideline 482  
Result: negative

#### Components:

Amines, polyethylenepoly-, triethylenetetramine fraction:

Genotoxicity in vivo : Application Route: Intraperitoneal injection  
Dose: 0 - 600 mg/kg  
Method: OECD Test Guideline 474  
Result: negative

### Carcinogenicity

#### Components:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine:

Species: Mouse, male  
Application Route: Dermal  
Exposure time: 20 month(s)  
Frequency of Treatment: 3 daily  
Result: negative

Amines, polyethylenepoly-, triethylenetetramine fraction:

Species: Mouse, male  
Application Route: Dermal  
Dose: 42 mg/kg  
Frequency of Treatment: 3 daily

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Method: OECD Test Guideline 451

Result: negative

Carcinogenicity - Assessment : No data available

### Reproductive toxicity

#### Components:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine:

Effects on fertility : Species: Rat, male and female  
Application Route: Oral  
Method: OECD Test Guideline 422  
Result: Animal testing did not show any effects on fertility.

#### Components:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine:

Effects on foetal development : Species: Rat, male and female  
Application Route: Oral  
General Toxicity Maternal: No observed adverse effect level:  
15 mg/kg body weight  
Developmental Toxicity: No observed adverse effect level: 15  
mg/kg body weight  
Embryo-foetal toxicity: No observed adverse effect level: 15  
mg/kg body weight  
Method: OECD Test Guideline 422  
Result: No effects on fertility and early embryonic  
development were detected.

Amines, polyethylenepoly-, triethylenetetramine fraction:

Species: Rat  
Application Route: Oral  
General Toxicity Maternal: No observed adverse effect level:  
> 750 mg/kg body weight  
Method: OECD Test Guideline 414  
Result: No teratogenic effects

Species: Rabbit  
Application Route: Dermal  
General Toxicity Maternal: No observed adverse effect level:  
125 mg/kg body weight  
Method: OECD Test Guideline 414  
Result: No teratogenic effects

#### Components:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine:

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility,  
or on development, based on animal experiments.

### STOT - single exposure

No data available

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### STOT - repeated exposure

No data available

### Repeated dose toxicity

#### Components:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine:

Species: Rat, male and female

: 550

Application Route: Ingestion

Test atmosphere: vapour

Exposure time: 3 Weeks Number of exposures: 7 d

Method: Subchronic toxicity

Species: Mouse, male

NOAEL:  $\geq 56.3$

Application Route: Skin contact

Exposure time: 20 h Number of exposures: 3 d

Method: Chronic toxicity

Amines, polyethylenepoly-, triethylenetetramine fraction:

Species: Rat, male and female

NOAEL: 50 mg/kg

Application Route: Ingestion

Exposure time: 26 Weeks Number of exposures: 7 d

Method: Subchronic toxicity

Repeated dose toxicity - Assessment : No data available

### 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

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### Toxicology, Metabolism, Distribution

No data available

### Neurological effects

No data available

### Further information

#### Product:

Remarks: No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 9.2 mg/l  
Exposure time: 48 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 202

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 21 mg/l  
Exposure time: 72 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (Pseudomonas putida): 181 mg/l  
Exposure time: 16 h  
Test Type: static test  
Test substance: Fresh water  
Method: DIN 38 412 Part 8

Amines, polyethylenepoly-, triethylenetetramine fraction:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 330 mg/l  
Exposure time: 96 h  
Test Type: static test  
Test substance: Fresh water  
Method: EPA OTS 797.1400

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 31.1 mg/l  
Exposure time: 48 h  
Test Type: static test

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Test substance: Fresh water  
Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 20 mg/l  
Exposure time: 72 h  
Test Type: semi-static test  
Test substance: Fresh water  
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (activated sludge): 800 mg/l  
Exposure time: 0.5 h  
Test Type: static test  
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10: 1.9 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Test substance: Fresh water  
Method: OECD Test Guideline 202

Ecotoxicology Assessment  
Acute aquatic toxicity : This product has no known ecotoxicological effects.

### 12.2 Persistence and degradability

#### Components:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine:

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 100 %  
Exposure time: 28 d  
Method: ISO

Amines, polyethylenepoly-, triethylenetetramine fraction:

Biodegradability : Inoculum: activated sludge  
Result: Not readily biodegradable.  
Biodegradation: 0 %  
Exposure time: 162 d  
Method: OECD Test Guideline 301D

Inoculum: activated sludge  
Result: Not readily biodegradable.  
Biodegradation: 20 %  
Exposure time: 84 d  
Method: OECD Test Guideline 302 A

### 12.3 Bioaccumulative potential

#### Components:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine:

Partition coefficient: n-octanol/water : log Pow: 0.5

log Pow: -0.56 (25 °C)

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pH: 11.6  
Method: OECD Test Guideline 107

Amines, polyethylenepoly-, triethylenetetramine fraction:  
Partition coefficient: n- : log Pow: -2.65 (20 °C)  
octanol/water Method: OECD Test Guideline 117

### 12.4 Mobility in soil

#### Components:

Amines, polyethylenepoly-, triethylenetetramine fraction:  
Distribution among : Koc: 1584.9 - 5012  
environmental compartments Method: OECD Test Guideline 106

### 12.5 Results of PBT and vPvB assessment

#### Product:

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 : No data available  
information

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.  
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.

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## SECTION 14: Transport information

#### IATA

14.1 UN number : UN 2735  
14.2 UN proper shipping : Polyamines, liquid, corrosive, n.o.s.  
name (N-(3-DIMETHYLAMINOPROPYL)-1,3-  
PROPYLENEDIAMINE)

14.3 Transport hazard : 8  
class(es)



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**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** : POLYAMINES, LIQUID, CORROSIVE, N.O.S.  
(N-(3-DIMETHYLAMINOPROPYL)-1,3-PROPYLENEDIAMINE)  
**14.3 Transport hazard class(es)** : 8  
**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** : POLYAMINES, LIQUID, CORROSIVE, N.O.S.  
(N-(3-DIMETHYLAMINOPROPYL)-1,3-PROPYLENEDIAMINE)  
**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** : POLYAMINES, LIQUID, CORROSIVE, N.O.S.  
(N-(3-DIMETHYLAMINOPROPYL)-1,3-PROPYLENEDIAMINE)  
**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.

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### 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

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 listed in the Canadian NDSL.
- AICS : On the inventory, or in compliance with the inventory
- NZIoC : On the inventory, or in compliance with the inventory
- ENCS : On the inventory, or in compliance with the inventory
- KECI : Not in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory
- TCSI : On the inventory, or in compliance with the inventory
- TSCA : On the inventory, or in compliance with the inventory

#### Inventories

AICS (Australia), DSL (Canada), IECSC (China), ENCS (Japan), KECI (Korea), NZIOIC (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:

Skin Corr. 1C	H314
Eye Dam. 1	H318
Skin Sens. 1	H317

#### Classification procedure:

Based on product data or assessment
Based on product data or assessment
Calculation method

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