

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Trade name : ARDROX 8571

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

1.3 Details of the supplier of the safety data sheet

Company : CHEMETALL AUSTRALASIA PTY LTD
17 TURBO DRIVE
3153 BAYSWATER VIC

Contact person : Customer Service
Telephone : +61 3 9729 6253 BUSINESS HOURS
Telefax : +61 3 9720 1711

Contact person product safety : Technical Manager
Telephone : +61 3 9729 6253
E-mail address : customer.service@chemetall.com

1.4 Emergency telephone number

Emergency telephone number : +61 3 9720 0370 AFTER HOURS

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion/irritation : Category 1B

Serious eye damage/eye irritation : Category 1

Skin sensitisation : Category 1

Specific target organ toxicity - single exposure (Inhalation) : Category 3

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

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P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
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): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

The information required is contained in this Safety Data Sheet.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
2-Aminoethanol; Ethanolamine	141-43-5	>= 10 - < 30
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine	4719-04-4	< 10

SECTION 4. FIRST AID MEASURES

General advice : Take off contaminated clothing and shoes immediately.
First Aid responders should pay attention to self-protection and use the recommended protective clothing
Move out of dangerous area.

Inhalation : Move to fresh air.
If symptoms persist, call a physician.

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Skin contact	: Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician.
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Ingestion	: Rinse mouth with water. Immediately give large quantities of water to drink. Do NOT induce vomiting. Call a physician immediately.
Most important symptoms and effects, both acute and delayed	: corrosive effects If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.
Notes to physician	: Treat symptomatically. For specialist advice physicians should contact the Poisons Information Service.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Carbon dioxide (CO ₂) Dry powder Water spray Alcohol-resistant foam
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Hazardous decomposition products formed under fire conditions. Nitrogen oxides (NO _x)
Specific extinguishing methods	: Use water spray to cool unopened containers. 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.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Wear personal protective equipment. For further information see Section 8 of the safety data sheet. For disposal considerations see section 13.
Environmental precautions	: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

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Methods and materials for containment and cleaning up : Ensure adequate ventilation.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Sweep up and shovel into suitable containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition.

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Have eye wash bottle or eye rinse ready at the work place. Avoid contact with skin and eyes. To avoid risks to man and the environment, comply with the instructions for use.

Hygiene measures : Take off contaminated clothing and shoes immediately. Avoid contact with the skin and the eyes. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and immediately after handling the product.

Conditions for safe storage : Store in a place accessible by authorized persons only. Store in original container. Keep container tightly closed in a dry and well-ventilated place. To maintain product quality, do not store in heat or direct sunlight.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-Aminoethanol; Ethanolamine	141-43-5	TWA	3 ppm 7.5 mg/m ³	AU OEL
		STEL	6 ppm 15 mg/m ³	AU OEL
		TWA	3 ppm	ACGIH
		STEL	6 ppm	ACGIH

Engineering measures : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment according to AS/NZS 1715/1716
Recommended Filter type:
Type B

Hand protection
Material : Gloves: PVC, Nitrile, Neoprene or natural rubber according to AS/NZS 2161.1

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Remarks	: Protective gloves complying with AS/NZS 2161.1. The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Eye protection	: Tightly fitting safety goggles or safety glasses with side shields. Eye protection (AS 1336/1337)
Skin and body protection	: Chemical resistant protective clothing according to AS3765/2210
Protective measures	: Handle in accordance with good industrial hygiene and safety practice. Ensure that eye flushing systems and safety showers are located close to the working place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: yellow
pH	: ca. 10
Boiling point/boiling range	: > 100 °C
Flash point	: Not applicable
Vapour pressure	: No data available
Density	: 1.03 g/cm ³
Solubility(ies) Water solubility	: soluble

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under recommended storage conditions.
Conditions to avoid	: To avoid thermal decomposition, do not overheat.
Incompatible materials	: Strong acids
Hazardous decomposition products	: No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

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- Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method
- Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method
- Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

2-Aminoethanol; Ethanolamine:

- Acute oral toxicity : LD50 (Rat): 1,515 mg/kg
Method: OECD Test Guideline 401
- Acute inhalation toxicity : LC50 (Rat): > 1.3 mg/l
Exposure time: 6 h
- Acute dermal toxicity : LD50 (Rat): > 1,000 mg/kg

2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine:

- Acute inhalation toxicity : LC50 (Rat): 0.37 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
- Acute dermal toxicity : LD50 (Rat): > 4,000 mg/kg

Skin corrosion/irritation

Product : No data available

Serious eye damage/eye irritation

Product : No data available

Respiratory or skin sensitisation

Product:

Remarks: No data available

Assessment: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Chronic toxicity

Germ cell mutagenicity

Product : No data available

Components:

2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine:

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Genotoxicity in vivo : Result: negative

Carcinogenicity

Product : No data available

Reproductive toxicity

Product : No data available

STOT - single exposure

Product : No data available

STOT - repeated exposure

Product : No data available

Product:

Repeated dose toxicity - Assessment : If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Aspiration toxicity

Product : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

2-Aminoethanol; Ethanolamine:

Toxicity to fish : LC50 (Carassius auratus (goldfish)): 170 mg/l
Exposure time: 96 h
Test Type: static test
Remarks: Information taken from reference works and the literature.

LC50 (Cyprinus carpio (Carp)): 349 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: Tested according to Directive 92/69/EEC.

NOEC (Oryzias latipes (Orange-red killifish)): 1.2 mg/l
Exposure time: 30 d

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 65 mg/l
Exposure time: 48 h
Test Type: static test

NOEC (Daphnia magna (Water flea)): 0.85 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211

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Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 22 mg/l
Exposure time: 72 h
Method: Tested according to Directive 92/69/EEC.

EC50 (Selenastrum capricornutum (fresh water algae)): 2.5 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to bacteria : EC50 (Pseudomonas putida): 110 mg/l
Exposure time: 16 h

EC20 (activated sludge): > 1,000 mg/l
Exposure time: 0.5 h
Method: OECD Test Guideline 209

EC50 (activated sludge): > 1,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine:

Toxicity to fish : LC50 (Brachydanio rerio (Zebra danio)): 16.07 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 11.9 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Desmodesmus subspicatus): 6.66 mg/l
Exposure time: 72 h

Toxicity to bacteria : EC20 (activated sludge): 128 mg/l
Exposure time: 0.5 h

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Components:

2-Aminoethanol; Ethanolamine:

Biodegradability : Result: rapidly biodegradable

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Mobility in soil

Product:

Mobility : Remarks: No data available

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Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : In accordance with local and national regulations.

Packaging : Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No. : UN 2491
Proper shipping name : Ethanolamine solution
Class : 8
Packing group : III
Labels : Corrosives
Packing instruction (cargo aircraft) : 856
Packing instruction (passenger aircraft) : 852

IMDG-Code

UN number : UN 2491
Proper shipping name : ETHANOLAMINE SOLUTION

Class : 8
Packing group : III
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no
Remarks : Alkalis, Stow "separated from" acids.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

SECTION 15. REGULATORY INFORMATION

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

The product is classified and labelled in accordance with EC directives or respective national laws.

Regional or national implementations of GHS may not implement all hazard classes and categories.

Standard for the Uniform : Schedule 6

Scheduling of Medicines and Poisons

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Further information

- Other information : The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.
- Date format : dd.mm.yyyy

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