

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Trade name : ARDROX 8901W Aerosol

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

Flammable aerosols : Category 1

Serious eye damage/eye irritation : Category 2A

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

GHS label elements

Hazard pictograms : 

Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces.
No smoking.

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P211 Do not spray on an open flame or other ignition source.
P243 Take precautionary measures against static discharge.
P251 Do not pierce or burn, even after use.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P262 Do not get in eyes, on skin, or on clothing.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

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

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage:

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

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)
Acetone	67-64-1	>= 30 - < 60
Butane	106-97-8	>= 10 - < 30
titanium dioxide	13463-67-7	>= 10 - < 30
2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether	112-34-5	< 10

SECTION 4. FIRST AID MEASURES

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

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

Skin contact : Wash off with soap and plenty of water.
If symptoms persist, call a physician.

Eye contact : Rinse immediately with plenty of water, also under the eyelids.
Consult a physician.

Ingestion : Rinse mouth with water.

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Do NOT induce vomiting.
Consult a physician.

Most important symptoms and effects, both acute and delayed : No information available.

Notes to physician : Treat symptomatically.
For specialist advice physicians should contact the Poisons Information Service.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
Alcohol-resistant foam
Water spray

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire-fighting : Heating or fire can release toxic gas.
Carbon monoxide
Carbon dioxide (CO₂)

Specific extinguishing methods : Use water spray to cool unopened containers.
Risk of bursting.

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.

Methods and materials for containment and cleaning up : Ensure adequate ventilation.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air. Normal measures for preventive fire protection.

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- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
Provide exhaust ventilation close to floor level.
Have eye wash bottle or eye rinse ready at the work place.
To avoid risks to man and the environment, comply with the instructions for use.
- Hygiene measures : Take off contaminated clothing and shoes immediately.
Keep away from food, drink and animal feedingstuffs.
Wash hands before breaks and immediately after handling the product.
Avoid contact with skin and eyes.
Do not breathe vapours, aerosols.
- Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in a place accessible by authorized persons only.
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
Acetone	67-64-1	TWA	500 ppm 1,185 mg/m ³	AU OEL
		STEL	1,000 ppm 2,375 mg/m ³	AU OEL
		TWA	250 ppm	ACGIH
		STEL	500 ppm	ACGIH
Butane	106-97-8	TWA	800 ppm 1,900 mg/m ³	AU OEL
		STEL	1,000 ppm	ACGIH
titanium dioxide	13463-67-7	TWA	10 mg/m ³	AU OEL
		Further information: This value is for inhalable dust containing no asbestos and < 1% crystalline silica		
		TWA	10 mg/m ³ (Titanium dioxide)	ACGIH
2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether	112-34-5	TWA (Inhalable fraction and vapor)	10 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Acetone	67-64-1	Acetone	Urine	End of shift (As soon as possible after exposure ceases)	25 mg/l	ACGIH BEI

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- Engineering measures** : Ensure adequate ventilation, especially in confined areas. Electrical equipment should be protected to the appropriate standard.
Use only explosion-proof equipment.
- 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
- 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 : opaque liquid
- Colour : white
- Odour : sweet
- Boiling point/boiling range : -25 °C
- Flash point : -50 °C
Method: closed cup
- Upper explosion limit : Upper flammability limit
ca. 9.5 %(V)
- Lower explosion limit : lower flammability limit
ca. 1.8 %(V)
- Density : ca. 0.9 g/cm³
- Solubility(ies)
Water solubility : partly soluble

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air. Pressurised container: May burst if heated.
Conditions to avoid	: Keep away from open flames, hot surfaces and sources of ignition. Strong sunlight for prolonged periods.
Hazardous decomposition products	: No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product : No data available

Components:

Acetone:

Acute oral toxicity : LD50 (Rat): 5,800 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): ca. 76 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): > 158,000 mg/kg

titanium dioxide:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 425

Acute inhalation toxicity : LC50 (Rat): > 6.8 mg/l
Exposure time: 4 h

2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether:

Acute oral toxicity : LD50 (Rat): 3,384 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 2,700 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

Chronic toxicity

Germ cell mutagenicity

Product : No data available

Components:

Acetone:

Genotoxicity in vitro : Test Type: Ames test
Method: OECD Test Guideline 471
Result: negative

: Test Type: Ames test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: in vivo assay
Species: Mouse
Application Route: Oral
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

Repeated dose toxicity

Components:

titanium dioxide:

Species: Rat
NOAEL: 3500
Application Route: Oral
Exposure time: 90 d

Aspiration toxicity

Product : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Acetone:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 5,540 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 8,800 mg/l
aquatic invertebrates : Exposure time: 48 h
Test Type: static test

NOEC (Daphnia magna (Water flea)): 2,212 mg/l
Exposure time: 28 d
Test Type: flow-through test

Toxicity to algae : NOEC (Algae): 430 mg/l
Exposure time: 96 h
Test Type: static test

NOEC (Microcystis aeruginosa (blue-green algae)): 530 mg/l
Exposure time: 8 d
Test Type: static test

Toxicity to bacteria : (activated sludge): Exposure time: 30 min
Test Type: Respiration inhibition

titanium dioxide:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

LC50 (Pimephales promelas (Fathead minnow)): > 1,000 mg/l
Exposure time: 96 h
Test Type: static test

LC50 (Cyprinodon variegatus (sheepshead minnow)): > 10,000 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other : LC50 (Daphnia magna (Water flea)): > 100 mg/l
aquatic invertebrates : Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 16 mg/l
Exposure time: 72 h
Test Type: static test

EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l

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Exposure time: 72 h
Method: ISO 10253

2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 2,750 mg/l
Exposure time: 48 h
Method: DIN 38412

LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,300 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 2,850 mg/l
Exposure time: 48 h

Toxicity to algae : NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Mobility in soil

Product:

Distribution among environmental compartments : Remarks: No data available

Components:

titanium dioxide:

Distribution among environmental compartments : Medium: Soil
Remarks: immobile

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 1950
Proper shipping name	: Aerosols, flammable (Butane)
Class	: 2.1
Packing group	: Not assigned by regulation
Labels	: Flammable gas
Packing instruction (cargo aircraft)	: 203
Packing instruction (passenger aircraft)	: 203

IMDG-Code

UN number	: UN 1950
Proper shipping name	: AEROSOLS (Butane)
Class	: 2.1
Packing group	: Not assigned by regulation
Labels	: 2.1
EmS Code	: F-D, S-U
Marine pollutant	: no
Remarks	: Shaded from sources of heat., "IMDG-Code segregation group not applicable"., Protected from sources of heat., For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters., For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

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.

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Standard for the Uniform : None allocated
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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