

# SAFETY DATA SHEET

Australian statement of hazardous nature : Classified as hazardous according to criteria of NOHSC

## Section 1 - Identification

Product Name	Ammonium Chloride
Product Code	ACR12334, ACR19997, ACR39318, ACR42328, AJA31, AJA32, AJA902, BSPAL904, FSBA/3800, FSBA/3880, FSBA/3920
Address	ThermoFisher Scientific Australia Pty Ltd 5 Caribbean Drive, Scoresby VICTORIA 3179, Australia
Emergency Tel.	CHEMTREC® 03 9757 4559 or +613 9757 4559
Telephone / Fax Numbers	Tel: 1300 735 292 Fax: 1800 067 639
E-mail address	auinfo@thermofisher.com
Recommended Use	Laboratory chemicals.

## Section 2 - Hazard(s) Identification

Classification under the National Occupational Health and Safety Commission (NOHSC), Australia

Classified as hazardous according to criteria of NOHSC

Physical hazards No hazards identified

#### Health hazards

Acute Oral Toxicity Serious Eye Damage/Eye Irritation

Environmental hazards No hazards identified Category 4 Category 2

Label Elements



### Signal Word

Warning

Hazard Statements H302 - Harmful if swallowed H319 - Causes serious eye irritation

**Precautionary Statements** 

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P280 - Wear eye protection/ face protection

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell

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

P330 - Rinse mouth

P337 + P313 - If eye irritation persists: Get medical advice/ attention

P403 - Store in a well-ventilated place

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

#### Other information

No information available

### Section 3 - Composition and Information on Ingredients

Component	CAS-No	Weight %
Ammonium chloride	12125-02-9	100

### Section 4 - First Aid Measures

Inhalation	Move to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Protection of First-aiders	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
First Aid Facilities	Eyewash, safety shower and washroom.
Most important symptoms/effects	No information available.
Notes to Physician	Treat symptomatically.

### Section 5 - Fire Fighting Measures

### Suitable Extinguishing Media

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

### Extinguishing media which must not be used for safety reasons

No information available.

### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### Section 6 - Accidental Release Measures

Emergency procedures Ensure adequate ventilation. Environmental Precautions See Section 12 for additional ecological information.

#### **Reference to Other Sections**

Refer to protective measures listed in Sections 8 and 13.

### Section 7 - Handling and Storage

**Precautions for Safe Handling** Ensure adequate ventilation.

#### Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place. AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

### Section 8 - Exposure Controls and Personal Protection

### Exposure limits

**AUS** - Exposure Standards for Atmospheric Contaminants in the Occupational Environment - Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995)] Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)] updated in August, 2005. Safe Work Australia **ACGIH** - Threshold Limit Values - Ceiling (TLV-C) guidelines by the American Conference of Governmental Industrial Hygienists (ACGIH) for controlling worker exposure to airborne chemical concentrations in the workplace. **UK** - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement.

Component	Australia	New Zealand WEL	ACGIH TLV	The United Kingdom	Germany
Ammonium chloride	STEL: 20 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	STEL: 20 mg/m <sup>3</sup> 15 min	
	TWA: 10 mg/m <sup>3</sup>	STEL: 20 mg/m <sup>3</sup>	STEL: 20 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> 8 hr	

#### **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Exposure Controls Engineering Measures

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

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equip Eye Protection	ment Goggles (Australian/New Zeala applications)	and Standard AS/NZS 1337	- Eye protectors for Industrial
Hand Protection	Protective gloves		
Glove material E	Breakthrough time Glove thickness Al	JS/NZ Standard	Glove comments

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Natural rubber	See manufacturers	-	AS/NZS 2161.1	(minimum requirement)
Nitrile rubber	recommendations			
Neoprene				
PVC				

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection	Long sleeved clothing
Repiratory Protection	Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment

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Recommended Filter type: Recommended half mask:-	must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of repiratory protective devices Particulates filter conforming to EN 143 (or AUS/NZ equivalent) Particle filtering: EN149:2001 (or AUS/NZ equivalent) When RPE is used a face piece Fit Test should be conducted
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	No information available.

## Section 9 - Physical and Chemical Properties

### Information on basic physical and chemical properties

Appearance Physical State	Colorless Solid	
Odor Odor Threshold pH Melting Point/Range Softening Point Boiling Point/Range Flash Point Evaporation Rate Flammability (solid,gas) Explosion Limits	No information available No data available 5 340 °C / 644 °F No data available Not applicable Not applicable Not applicable No information available No data available	<b>Method -</b> No information available Solid
Vapor Pressure Vapor Density Specific Gravity / Density Bulk Density Water Solubility Solubility in other solvents Partition Coefficient (n-octanol/water	No data available Not applicable No data available No data available Soluble in water No information available	Solid
Component Ammonium chloride Autoignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties	<b>log Pow</b> -4.38 Not applicable No data available Not applicable No information available No information available	Solid
<u>Other information</u> Molecular Formula Molecular Weight	NH4CI 53.49	

## Section 10 - Stability and Reactivity

Reactivity	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Heat, flames and sparks.
Hazardous Decomposition Products	None under normal use conditions

Hazardous Decomposition Products None under normal use conditions.

Hazardous Polymerization	No information available.
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## Section 11 - Toxicological Information

Information on Toxicological Effects	Information on	Toxicological	Effects
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Product	Information
1 I Ouuol	mormation

(a) acute toxicity;	
Oral	Category 4
Dermal	Based on available data, the classification criteria are not met
Inhalation	Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium chloride	1650 mg/kg (Rat)	> 2000 mg/kg	
(b) skin corrosion/irritation;	Based on available data, the c	lassification criteria are not me	et

b) skin corrosion/irritation;	Based on available data, the classification criteria are not m
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(c) serious eye damage/irritation;	Category 2				
(d) respiratory or skin sensitization; Respiratory Skin	Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met				
(e) germ cell mutagenicity;	Based on available data, the classification criteria are not met				
(f) carcinogenicity;	Based on available data, the classification criteria are not met				
(g) reproductive toxicity; (h) STOT-single exposure;	There are no known carcinogenic chemicals in this product Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met				
(i) STOT-repeated exposure;	Based on available data, the classification criteria are not met				
Target Organs (j) aspiration hazard;	None known. Not applicable Solid				

Symptoms / effects, both acute and No information available delayed

## Section 12 - Ecological Information

### Ecotoxicity effects

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox			
Ammonium chloride	Cyprinus carpio:	EC50 = 202 mg/L/24h	-	-			
	LC50 = 209 mg/L						
Persistence and Degradability							
Persistence	Soluble in water, Pers	sistence is unlikely, base	ed on information availa	able.			
Degradability	Not relevant for inorganic substances.						
0 ,	Bioaccumulation is unlikely						
Bioaccumulative Potential	Bioaccumulation is ur	nlikelv					
Bioaccumulative Potential	Bioaccumulation is ur	nlikely					
Bioaccumulative Potential Component		nlikely g Pow	Bioconcentra	tion factor (BCF)			
	Ιοί	,		<b>tion factor (BCF)</b> a available			
Component	log -	<b>g Pow</b> 4.38	No data	a available			
Component Ammonium chloride	log - The product is water	g Pow	No data d in water systems. Wi	a available			
Component Ammonium chloride	The product is water servironment due to its	<b>g Pow</b> 4.38 soluble, and may spread	No data d in water systems. Wi mobile in soils	a available ill likely be mobile in the			

This product does not contain any known or suspected substance

### Section 13 - Disposal Considerations

Waste from Residues / Unused	D
Products	be

Ozone Depletion Potential

o not allow into drains or watercourses or dispose of where ground or surface waters may e affected. Wastes, including emptied containers, are controlled wastes and should be

disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

Dispose of this container to hazardous or special waste collection point.

Contaminated Packaging

**Other Information** 

Chemical wastes should be disposed through a licensed commercial waste collection service. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

### Section 14 - Transport Information

IMDG/IMO	Not regulated
ADG	Not regulated
IATA_	Not regulated
Environmental hazards Special Precautions Additional information	No hazards identified No special precautions required None known

## Section 15 - Regulatory Information

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

International Inventories		X = listed	ł								
Component	AICS	NZIoC	EINECS	ELINCS	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	KECL
Ammonium chloride	Х	Х	235-186-	-	Х	Х	-	Х	Х	Х	Х
			4								
Standard for the Uniform		Not Sche	haluba								

Standard for the Uniform Scheduling of Medicines and Poisons Not Scheduled

Prohibition or notification/licensing Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

## Section 16 - Other Information

### Legend

AICS - Australian Inventory of Chemical Substances NZIOC - New Zealand Inventory of Chemicals TSCA - United States Toxic Substances Control Act Section 8(b) **EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Inventory Substances/EU List of Notified Chemical Substances DSL/NDSL - Canadian Domestic Substances List/Non-Domestic ENCS - Japanese Existing and New Chemical Substances Substances List IECSC - Chinese Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances **CAS** - Chemical Abstracts Service TWA - Time Weighted Average ACGIH - American Conference of Governmental Industrial Hygienists IARC - International Agency for Research on Cancer **PNEC** - Predicted No Effect Concentration IMO/IMDG - International Maritime Organization/International Maritime ICAO/IATA - International Civil Aviation Organization/International Air Dangerous Goods Code **Transport Association** MARPOL - International Convention for the Prevention of Pollution from ADG Australian Code for the Transport of Dangerous Goods by Road Ships and Rail NZS 5433:2012 - Transport of Dangerous Goods on Land OECD - Organisation for Economic Co-operation and Development LC50 - Lethal Concentration 50% LD50 - Lethal Dose 50% ATE - Acute Toxicity Estimate EC50 - Effective Concentration 50% WEL - Workplace Exposure Limit **RPE** - Respiratory Protective Equipment **DNEL** - Derived No Effect Level NOEC - No Observed Effect Concentration POW - Partition coefficient Octanol:Water BCF - Bioconcentration factor vPvB - very Persistent, very Bioaccumulative PBT - Persistent, Bioaccumulative, Toxic VOC - Volatile Organic Compounds

#### Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

#### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Revision Date	11-Jan-2016
Revision Summary	Update to Format.

# This safety data sheet complies with the requirements of Safe Work Australia WHS Regulation

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

### **End of Safety Data Sheet**