

Material Safety Data Sheet

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Infosafe No™ JXF38 Issue Date : April 2014 RE-ISSUED by THERMOF

Product Name **ALUMINIUM NITRATE**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name ALUMINIUM NITRATE
Product Code 17
Company Name Thermo Fisher (ABN 64 121 927 786)
Address 5 Carribean Drive
(PO Box 9092) Scoresby
VIC 3174 Australia
Emergency Tel. 1800 638 556 (24 hr) Aust / (NZ): 0800 154 666
Telephone/Fax Number Tel: 1300 884 078
Email toms@ajaxfinechem.com
Recommended Use Not available.

Other Names	<u>Name</u>	<u>Product Code</u>
	ALUMINIUM NITRATE	901
	ALUMINIUM NITRATE	10193
	ALUMINIUM NITRATE	10736

Other Information NEW ZEALAND: Thermo Fisher Scientific New Zealand Limited
244 Bush Road, Albany, Auckland
Phone: 09 980 6700
Fax: 09 980 6788
Emergency Advice (NZ): Phone 0800 154 666

2. HAZARDS IDENTIFICATION

Hazard Classification Classified as hazardous
Australia:
Classified as Hazardous, according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC).
Classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

New Zealand:
Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.
Classified as Dangerous Goods for transport, according to the NZS 5433:2007 Transport of Dangerous Goods on Land.
HSNO Classification:
5.1.1C - Oxidising substance that are solids or liquids: low hazard.
6.3A - Substance that is irritating to the skin.
6.4A - Substance that is irritating to the eye.

Hazard statement code:
H272 May intensify fire; oxidizer.
H315 Causes skin irritation.
H320 Causes eye irritation.
Precautionary statement codes- prevention:
P103* Read label before use. - This statement applies only where the substance is available to the general public.
P104 Read Safety Data Sheet before use.
P210 Keep away from heat/sparks/open flames/hot surfaces.
P220 Keep/Store away from clothing/reducing agents/combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection*.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement codes- Response:
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

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Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before re-use.
Precautionary statement codes - Storage:
Precautionary statement codes - Disposal:
P501 *In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided.

Risk Phrase(s)

Classified as hazardous

R36/38 Irritating to eyes and skin.

R8 Contact with combustible material may cause fire.

Safety Phrase(s)

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Aluminium Nitrate Nonahydrate	7784-27-2	60-100 %		

4. FIRST AID MEASURES

Inhalation	Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have qualified person give oxygen through a face mask if breathing is difficult. If symptoms develop seek medical attention.
Ingestion	Do NOT induce vomiting. Wash out mouth with water. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.
Skin	Remove all contaminated clothing. Wash gently and thoroughly with water and non-abrasive soap. Ensure contaminated clothing is washed before re-use or discard. If contact is more than of minor nature, seek medical attention.
Eye	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.
First Aid Facilities	Eye wash fountains and normal washroom facilities.
Advice to Doctor	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Water spray, foam, carbon dioxide or dry powder.
Hazards from Combustion	Under fire conditions this product may emit toxic and/or irritating fumes including nitrous oxides.
Products Specific Hazards	Contact with combustible material may cause fire.
Hazchem Code	1Y
Precautions in connection with Fire	Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Other Information	Remove all sources of heat. Increase ventilation. Wear sufficient respiratory protection and full protective clothing to minimise skin and eye exposure. Vacuum or sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust. Seal all wastes in vapour tight labelled plastic containers for eventual disposal. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.
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7. HANDLING AND STORAGE

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Precautions for Safe Handling	Avoid generating dust. Use in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Label containers. Keep containers closed when not in use. Wear appropriate protective equipment to prevent inhalation, skin and eye contact. Ensure a high level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking, smoking or using the toilet.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in labelled, corrosion-resistant containers. Keep containers tightly closed. Store away from water and other incompatible materials. Have appropriate fire extinguishers available in and near the storage area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for this material by the Australian National Occupational Health & Safety Commission (NOHSC) or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour. However, the exposure standard for dust not otherwise specified is 10 mg/m ³ (for inspirable dust) and 3 mg/m ³ (for respirable dust). The limit applies to both Australia and New Zealand. As published by the National Occupational Health and Safety Commission (NOHSC): As published by the New Zealand Occupational Safety and Health Service (OSH): TWA - the Time-Weighted Average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge these concentrations should neither impair the health of, nor cause undue discomfort to, nearly all workers.
Engineering Controls Respiratory Protection	Ensure sufficient ventilation to keep airborne concentrations below exposure limits. Mechanical exhaust ventilation may be required. Where sufficient ventilation is not available, avoid breathing dust by wearing an AS 1716 approved P1 or P2 particulate filter respirator. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.
Eye Protection	Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear gloves of impervious material such as neoprene rubber. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection	Suitable workwear should be worn to protect personal clothing, eg cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colourless, crystalline solid.
Odour	Weak odour.
Melting Point	73°C
Boiling Point	Not available.
Solubility in Water	730.0 g/l @ 20°C
pH Value	2.5 to 3.5 @ 20°C (5% solution)
Density	Approximately 1100 kg/m ³ .
Flash Point	Not applicable

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Flammability	Mixtures with combustible material are readily ignited and may burn fiercely.
Auto-Ignition Temperature	Not applicable
Flammable Limits - Lower	Not applicable
Flammable Limits - Upper	Not applicable
Molecular Weight	375.13
Other Information	The product is hygroscopic.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal use conditions.
Conditions to Avoid	Extremes of temperature and direct sunlight.
Incompatible Materials	Reducing agents.
Hazardous Decomposition Products	Nitrous gases.
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	Acute toxicity: LD50 (oral, rat) = 3671 mg/kg LD50 (oral, mouse) = 3980 mg/kg Irritant effects on eyes Species: rabbit Evaluation: Strongly irritant Source: Literature value
Inhalation	Inhalation of product may cause irritation of the nose, throat and respiratory system.
Ingestion	Ingestion of this product may irritate the gastric tract, causing nausea and vomiting
Skin	Irritating to skin resulting in redness and itching.
Eye	Irritating to eyes. On eye contact this product will cause tearing, stinging, blurred vision, and redness.
Chronic Effects	Not known.

12. ECOLOGICAL INFORMATION

Ecotoxicity	No data is available for this material.
Persistence / Degradability	Not available.
Mobility	Not available.
Environ. Protection	Do not allow product to enter drains, waterways or sewers.

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Dispose of according to relevant local, state and federal government regulations.
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14. TRANSPORT INFORMATION

Transport Information	AUSTRALIA: This material is a Class 5.1 - Oxidising Agent according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. This material is incompatible in a placard load with any of the following: - Class 1, Explosive - Class 2.1, Flammable gases - Class 2.3, Toxic gases
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Product Name **ALUMINIUM NITRATE**

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- Class 3, Flammable liquids
- Class 4.1, Flammable Solids
- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous When wet
- Class 5.2, Organic peroxides
- Class 6.1, Toxic substances and Class 6.2 Infectious Substances (where the substances are fire risk substances)
- Class 7, Radioactive materials unless specifically exempted.
- Class 8, Corrosives
- Class 9, Miscellaneous substances (where the miscellaneous dangerous goods are fire risk substances), and
- Combustible Liquids.

NEW ZEALAND:

This material is classified as a Class 5.1 Oxidising Substance according to NZS 5433:2007 Transport of Dangerous Goods on Land. This material must not be loaded in the same freight container or on the same vehicle with:

- Class 1, Explosive
- Class 2.1, Flammable gases
- Class 2.3, Toxic gases
- Class 3, Flammable liquids
- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous When wet
- Class 5.2, Organic peroxides
- Class 6.2, Infectious substances
- Class 8, Corrosives

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- Class 4.1, Flammable Solids
- Class 6.1, Toxic Substances
- Class 7, Radioactive Materials unless specifically exempted

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- Flammable Liquids (Class 3),
- Class 4.1, Flammable Solids
- Class 4.2, Spontaneously Combustible Substances
- Class 4.3, Dangerous When Wet Substances
- Class 5.2, Organic Peroxides
- Class 6.1, Toxic Substances
- Class 6.2, Infectious Substances
- Class 8, Corrosive Substances

U.N. Number	1438
Proper Shipping Name	ALUMINIUM NITRATE
DG Class	5.1
Hazchem Code	1Y
Packaging Method	3.8.5.1
Packing Group	III
EPG Number	5A1
IERG Number	31

15. REGULATORY INFORMATION

Regulatory Information	Australia: Classified as hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC). Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP)
Poisons Schedule	Not Scheduled

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National and or International Regulatory Information New Zealand:
Classified as Hazardous according to the Hazardous Substances (Minimum degrees of hazard) Regulations 2001.
Group standard:
Oxidising [5.1.1] Substances Group Standard 2006
HSNO Approval Number:
HSR002631

Hazard Category Irritant, Oxidising

16. OTHER INFORMATION

Date of preparation or last revision of MSDS MSDS Reviewed: July 2008
MSDS Created: August 2003

Contact Person/Point For further information contact Tom Sadler on 1300 884 078 during business hours. In case of emergency call Australia 1800 638 556/ New Zealand 0800 154 666.

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Ajax Finechem Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.
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