Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **METHYL AMMONIUM NITRATE 86%**

Other name(s): Monomethyl ammonium nitrate 86%, MAN 86%, MMAN 86%

Recommended use of the chemical and restrictions on use: Explosives component.

Supplier: Orica Australia Pty Ltd
ABN: 99 004 117 828
Street Address: 1 Nicholson Street
Melbourne 3000
Australia

Telephone Number: +61 3 9665 7111
Facsimile: +61 3 9665 7937
Emergency Telephone: **1 800 033 111 (ALL HOURS)**

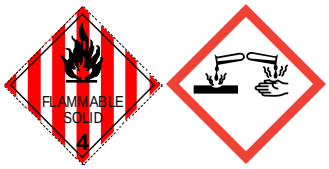
2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

Classification of the substance or mixture:
Flammable solids - Category 2
Skin Corrosion - Sub-category 1A
Eye Damage - Category 1

SIGNAL WORD: DANGER



Hazard Statement(s):
H228 Flammable solid.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Precautionary Statement(s):

Prevention:
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from flames and hot surfaces. No smoking.
P230 Keep wetted with water.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical / ventilating / lighting equipment.
P260 Do not breathe dust / fume / gas / mist / vapours / spray.
P264 Wash hands thoroughly after handling.
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.
P310 Immediately call a POISON CENTER or doctor/physician.
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/shower.
P363 Wash contaminated clothing before re-use.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).
P370+P378 In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards:
AUH001 Explosive when dry.

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Methyl ammonium nitrate (MAN)	-	<87%	H228, H314, H318
Ammonium nitrate	6484-52-2	0.1% max	H272 H319
Other nitrates	-	<2%	-
Water	7732-18-5	<15%	-

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:
Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact:
If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye Contact:
If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

Ingestion:
Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice.

Indication of immediate medical attention and special treatment needed:
Treat symptomatically.

5. FIRE FIGHTING MEASURES

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Suitable Extinguishing Media:
Coarse water spray.

Hazchem or Emergency Action Code: 1Z

Specific hazards arising from the substance or mixture:
Flammable solid. May form flammable dust clouds in air. For precautions necessary refer to Orica Safety Data Sheet "Dust explosion Hazards". On burning will emit toxic fumes, including those of oxides of nitrogen and oxides of carbon .

Special protective equipment and precautions for fire-fighters:
Avoid all ignition sources. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure. Fires to be fought from a protected location. Fires may re-ignite during extinguishing process.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:
Shut off all possible sources of ignition. Clear area of all unprotected personnel. Wear protective equipment to prevent skin and eye contact. In the case of a transport accident notify the Police, Explosives Inspector and Orica Australia Pty Ltd (Telephone: 1800 033 111 -- 24 hour service) and/or Orica New Zealand Pty Ltd (Telephone: 0800 734 607 -- 24 hour service).

If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:
Contain - prevent run off into drains and waterways. Cover with damp absorbent (inert material, sand or soil). Dampen material down thoroughly. Collect with non-metallic implements. Collect in properly labelled containers for disposal. Use non-sparking tools.

7. HANDLING AND STORAGE

Precautions for safe handling:
Avoid skin and eye contact. Avoid all contact with other chemicals. Avoid handling which leads to dust formation.

Conditions for safe storage, including any incompatibilities:
Store in cool place and out of direct sunlight. Store away from sources of heat or ignition. Do not allow material to dry out. Store away from oxidising agents, combustible materials and explosives. Keep containers closed when not in use - check regularly for spills.

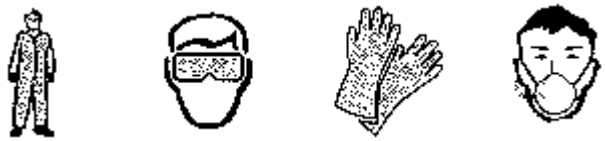
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia.

Appropriate engineering controls:
Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

Individual protection measures, such as Personal Protective Equipment (PPE):
The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Orica Personal Protection Guide No. 1, 1998: F - OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Slurry
Odour:	Mild
Solubility:	Miscible with water.
Specific Gravity:	1.26 @ 40°C
Relative Vapour Density (air=1):	N App
Vapour Pressure (20 °C):	N Appl
Flash Point (°C):	>110
Flammability Limits (%):	N Av
Autoignition Temperature (°C):	270
Melting Point/Range (°C):	N Av
Boiling Point/Range (°C):	N Appl
Decomposition Point (°C):	190
pH:	4 - 6
Viscosity:	2.5 cP @ 87°C

10. STABILITY AND REACTIVITY

Reactivity: Flammable solid.

Chemical stability: In extreme conditions the material can decompose and/or possibly self-ignite if subjected to very high temperatures.

Possibility of hazardous reactions: Flammable solid. Hazardous polymerisation will not occur.

Conditions to avoid: Avoid exposure to heat, sources of ignition, and open flame. Avoid contact with combustible substances. Do not allow product to dry out. The crystallised anhydrous material is highly sensitive to shock and/or friction.

Incompatible materials: Incompatible with combustible materials. Incompatible with oxidising agents.

Hazardous decomposition products: Oxides of nitrogen. Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing can result in headaches, nausea, dizziness and vomiting.

Eye contact: An eye irritant. Causes serious eye damage.

Skin contact: Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

Inhalation: Breathing in dust may result in respiratory irritation. Breathing in dust may result in coughing.

Acute toxicity: No LD50 data available for the product.

Chronic effects: No information available for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal methods:
Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of material through a licensed waste contractor. Advise flammable nature. Empty containers must be decontaminated by rinsing thoroughly with water. Rinsing water needs to be disposed of carefully.

14. TRANSPORT INFORMATION

Road and Rail Transport
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

UN No:	1325
Transport Hazard Class:	4.1 Flammable Solid
Packing Group:	III
Proper Shipping Name or Technical Name:	FLAMMABLE SOLID, ORGANIC, N.O.S. (CONTAINS METHYL AMMONIUM NITRATE)
Hazchem or Emergency Action Code:	1Z

Marine Transport
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No:	1325
Transport Hazard Class:	4.1 Flammable Solid
Packing Group:	III
Proper Shipping Name or Technical Name:	FLAMMABLE SOLID, ORGANIC, N.O.S. (CONTAINS METHYL AMMONIUM NITRATE)
IMDG EMS Fire:	F-A
IMDG EMS Spill:	S-G

Air Transport
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No:	1325
Transport Hazard Class:	4.1 Flammable Solid
Packing Group:	III
Proper Shipping Name or Technical Name:	FLAMMABLE SOLID, ORGANIC, N.O.S. (CONTAINS METHYL AMMONIUM NITRATE)

15. REGULATORY INFORMATION

Classification:
This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

Classification of the substance or mixture:
Flammable solids - Category 2
Skin Corrosion - Sub-category 1A
Eye Damage - Category 1

Hazard Statement(s):
H228 Flammable solid.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Poisons Schedule (SUSMP): None allocated.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

This safety data sheet has been prepared by Orica Toxicology & SDS Services.

Reason(s) for Issue:
5 Yearly Revised Primary SDS

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Orica Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Orica representative or Orica Limited at the contact details on page 1.

Orica Limited's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.