

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: MONOAMMONIUM PHOSPHATE

Other name(s): MAP; Monoammonium Phosphate; Monoammonium Dihydrogen Phosphate; Soluble Fine

Grade MAP; Technical Grade MAP

Recommended Use: Fertilizer and general chemical.

Supplier: Shifang Yuda Chemicals Co., Ltd

Street Address: NO.68 Yongning street Shifang city Sichuan province, China.

2. HAZARDS IDENTIFICATION

Based on available information, not classified as hazardous according to criteria of NOHSC; NON-HAZARDOUS SUBSTANCE.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Poisons

Schedule:

None allocated.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components / CAS Number Proportion Risk Phrases

Monoammonium phosphate

7722-76-1

>99% -

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (Phone eg. Australia 131 126; New Zealand 0 800 764766) 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 contact occurs, remove contaminated clothing and wash skin with running water. If irritation, occurs seek medical advice.

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Eye Contact: If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

Medical attention and special treatment: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazards from combustion

products: Non-combustible material.

Precautions for fire fighters and

special protective equipment: Decomposes on heating emitting toxic fumes, including those of oxides of nitrogen . Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

Suitable Extinguishing Media: Not combustible, however, if material is involved in a fire use: Extinguishing media appropriate to surrounding fire conditions.

6. ACCIDENTAL RELEASE MEASURES

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

Methods and materials for containment and clean up:

Wear protective equipment to prevent skin and eye contact. Avoid breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers, bags or drums for disposal or re-use.

7. HANDLING AND STORAGE

Conditions for safe storage: Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. High stacking should be avoided as pressure tends to promote caking. Store away from farm chemicals eg. insecticides, fungicides and herbicides.

This product when stored in a confined, unventilated space/hold can give off ammonia or other odour and lead to the depletion of oxygen within this space and other confined spaces. It is therefore essential that ventilation is carried out prior to entry to all ship holds.

Precautions for safe handling: Avoid skin and eye contact and breathing in dust. Take precautionary measures against static discharges.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for particulates: Nuisance dust: 8hr TWA = 10 mg/m³ As published by the National Occupational Health and Safety Commission.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering controls:

Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. If inhalation risk exists: Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

Personal Protective Equipment:

The selection of PPE is dependant 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: E - OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.

Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If dust exists, wear 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: Crystals or Granules

Colour: White

Odour: Faint Acid

Molecular Formula: NH₄.H₂PO₄

Solubility: Soluble in water. Insoluble in organic solvents.

Specific Gravity: 1.8

Relative Vapour Density (air=1): Not available

Vapour Pressure (20 °C): <1 mm Hg

Flash Point (°C): Not applicable

Flammability Limits (%): Not applicable

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Autoignition Temperature (°C): Not applicable

% Volatile by Volume: 0

Solubility in water (g/L): 400

Melting Point/Range (°C): 190

pH: 4.0 (1% solution)

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to avoid: Avoid dust generation.

Incompatible materials: Incompatible with strong bases , magnesium , methenamine , and sodium hypochlorite .

Hazardous decomposition

products:

Oxides of nitrogen.

Hazardous reactions: Monoammonium phosphate reacts with strong bases, magnesium (with the release of ammonia) and methenamine (causes the slow evolution of formaldehyde). May be mildly corrosive to aluminium and steel.

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 nausea, vomiting, diarrhoea, and abdominal pain.

Eye contact: May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

Skin contact: Repeated or prolonged skin contact may lead to irritation.

Inhalation: Breathing in dust may result in respiratory irritation.

Long Term Effects:

No information available for the product.

Toxicological Data:

No LD50 data available for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

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13. DISPOSAL CONSIDERATIONS

Disposal methods: Refer to Waste Management Authority. Normally suitable for disposal at approved land waste site.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification: Based on available information, not classified as hazardous according to criteria of NOHSC;

NON-HAZARDOUS SUBSTANCE. **Poisons Schedule:** None allocated.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

The information and recommendations set forth herein are based on data we have in our possession and we have reason to believe is accurate. It is, however, the user's responsibility for his own use of the herein described product. Because the actual by others is beyond our control, YUDA CHEM, makes no warranty expressed or implied regarding accuracy of the data or the results to be obtained from the use there of. Page 5 of 5