MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Clay Disperser

Recommended Use:

Supplier: Midland Chemicals
ABN: 91 622 018 986

Street Address: 18 Elliott Street
Midvale
Western Australia

Telephone Number: +61 08 9274 1992

Facsimile: +61 08 9250 1710

Emergency Telephone: **1 800 033 111 (ALL HOURS)**

2. HAZARDS IDENTIFICATION

Road and Rail; Non Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code).

Globally Harmonised System

Hazard Classification
Not Hazardous according to the Criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion
Non Hazardous Products		100%

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 at once.

Inhalation:
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Skin Contact:
Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Get medical attention if irritation develops.

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Cold water may be used. If irritation develops, get medical attention.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear

Medical attention and special treatment:
Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident.
Persons with pre-existing skin, eye or respiratory disease may be at increased risk. Attending physician should treat exposed patients symptomatically.

5. FIRE FIGHTING MEASURES

General:
Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.

Flammability Conditions:
Product is a non-flammable solid. Product may melt with loss of steam.

Extinguishing Media:
Use water spray, dry chemical, carbon dioxide, or chemical foam.

Fire and Explosion Hazard:
Not considered to be a fire hazard. Not considered to be an explosion hazard.

Hazardous Products of Combustion:
Hazardous decomposition products formed under fire conditions: Oxides of phosphorus, toxic fumes of sodium oxide

Special Fire Fighting Instructions:
Prevent fire-fighting water from entering surface water or groundwater.

Personal Protective Equipment:
Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves).

Flash Point: No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure:
Avoid accidents, clean up immediately. Slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment.

Clean up Procedure:
Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and dispose of promptly.

Containment:

Stop leak if safe to do so. Isolate the danger area

Decontamination:
Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Environmental Precautionary Measures:
Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.

Evacuation Criteria:
Evacuate all unnecessary personnel

Personnel Precautionary Measures:
Personnel involved in the clean up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

This material must be stored, maintained and used in accordance with the relevant regulations.

Conditions for safe storage:
Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Store in original packaging as approved by manufacturer.

Precautions for safe handling:
Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:
General: Sodium Hexametaphosphate
Derived No Effect Level (DNEL) for Workers:
EXPOSURE PATTERN: Long-term, systemic effects
ROUTE OF EXPOSURE: Inhalation
DNEL VALUE: 5.289 mg/m³
Derived No Effect Level (DNEL) for General Population:
EXPOSURE PATTERN: Long-term, systemic effects
ROUTE OF EXPOSURE: Inhalation
DNEL VALUE: 1.304 mg/m³

Biological Limits: Sodium Hexametaphosphate
Predicted No Effect Concentration (PNEC) Values:
PNEC Value: Water (freshwater): 0.1 mg/L
PNEC Value: Water (marine water): 0.01 mg/L
PNEC Value: Water (intermittent releases): 1 mg/L
PNEC Value: Sewage treatment plant: 100 mg/L

Engineering Measures:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protective Equipment:
RESPIRATOR: A self contained breathing apparatus should be used to avoid inhalation of the product when necessary.
EYES: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area (AS1336/1337).
HANDS: Wear protective gloves (AS2161).
CLOTHING: Wear clean body-covering clothing (AS3765/2210)

Special Hazards Precautions:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower

Work Hygiene Practices:
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Colour: colourless/white
Solubility: N/A
Specific Gravity: No Data Available
Relative Vapour Density (air=1): N/A
Vapour Pressure (20 °C): N/A
Flash Point (°C): N/A
Flammability Limits (%): N/A
Auto Ignition Temperature (°C): N/A
Boiling Point/Melting Point (°C):
pH: 2.2 @ 10g/L

10. STABILITY AND REACTIVITY

General Information:
Hygroscopic - keep container tightly closed. Slightly corrosive in presence of steel.

Chemical Stability:
Product is stable under normal conditions of use, storage and temperature.

Conditions to Avoid:
Incompatible materials, dust generation, excess heat, moist.

Materials to Avoid:
Avoid strong oxidising agents.

Hazardous Decomposition Products:
Hazardous decomposition products formed under fire conditions: oxides of phosphorus, toxic fumes of sodium oxide.

Hazardous Polymerisation:
Hazardous polymerization will not occur.

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: Harmful if swallowed.
Sodium Hexametaphosphate: ACUTE TOXICITY: ORAL Rat LD50 >2,000 mg/kg

Eye contact: Sodium Hexametaphosphate: SERIOUS EYE DAMAGE/IRRITATION: SPECIES: Rabbit RESULT: Not irritating.

Skin contact: Sodium Hexametaphosphate: SERIOUS EYE DAMAGE/IRRITATION: SPECIES: Rabbit RESULT: Not irritating.

Inhalation: Sodium Hexametaphosphate: ACUTE TOXICITY: INHALATION Rat LC50 >3.69 mg/L/4h

Sensitisation: Sodium Hexametaphosphate: RESPIRATORY/SKIN SENSITISATION: SPECIES: Mouse RESULT: Not sensitising.

Mutagenicity: Bacterial reverse mutation assay, results: negative.

Reproduction: The results provide support for the argument that there is no concern with regard to effects of sodium metaphosphate on reproduction.

Carcinogen Category: No

Toxicological Data: SPECIFIC TARGET ORGAN TOXICITY (SINGLE & REPEATED EXPOSURE): May cause gastrointestinal tract irritation with nausea, vomiting, and diarrhea. May affect behaviour/central nervous system/peripheral nervous system (somnolence, convulsions, lethargy, and flaccid paralysis), urinary system (kidneys- renal failure, acute tubular necrosis). It may also cause heart disturbances (fall in blood pressure, slow pulse) and blood chemistry effects (reduction of serum level of calcium). Tetany may also occur as a result of reduction in serum level of ionic calcium.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute fish toxicity: LC50 (96 h): > 100 mg/L, Oncorhynchus mykiss, OECD Guideline 203
Acute daphnia toxicity: EC50 (48 h): > 485 mg/L, Daphnia magna, EPA OTS 797.1300
Acute algae toxicity: EC50 (72 h): > 100 mg/L, Desmodesmus subspicatus, OECD Guideline 201

Persistence and Degradability

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The product itself and its products of degradation are not toxic

Environmental Fate:

Sodium Hexametaphosphate: Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Dispose of in accordance with all local, state and federal regulations.
All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

14. TRANSPORT INFORMATION

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

UN No: N/A
Class-Primary: N/A
Packing Group: N/A
Proper Shipping Name: <50% Sodium Hexametaphosphate Solution
Hazchem Code: N/A

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

UN No: N/A
Class-Primary: N/A
Packing Group: N/A
Proper Shipping Name: <50% Sodium Hexametaphosphate Solution
Hazchem Code: N/A

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

UN No: N/A
Class-Primary: N/A
Packing Group: N/A
Proper Shipping Name: <50% Sodium Hexametaphosphate Solution
Hazchem Code: N/A

15. REGULATORY INFORMATION

Classification: Not Hazardous according to the Criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

16. OTHER INFORMATION

This safety data sheet has been prepared by Midland Chemicals

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. No liability is accepted whether direct or indirect from its application since the conditions of final use are outside Midland Chemicals control. The end user is obliged to conform to relevant government regulations and/or patent laws applicable in their respective States of Countries.