# SAFETY DATA SHEET
# EZIPUMP ANE

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**1.1 Product identifier**
**Product name:** EZIPUMP ANE (1000, 1500, 2000, 3000, 4000, 5000, 5500)
**Synonym(s):** AMMONIUM NITRATE EMULSION • ANE • EZIPUMP ANE (1000, 1500, 2000, 3000, 4000, 5000, 5500)

**1.2 Uses and uses advised against**
**Use(s):** EMULSION PHASE INGREDIENT FOR EXPLOSIVES • MINING EXPLOSIVE

**1.3 Details of the supplier of the product**
**Supplier name:** JOHNSON HI-TECH (AUSTRALIA) PTY LTD
**Address:** Level 1, 63 Abernethy Road, Belmont WA 6104 AUSTRALIA
**Telephone:** +61 8 6250 8200
**Fax:** +61 8 6250 8299
**Email:** info@johnex.com.au
**Website:** www.johnex.com.au

**1.4 Emergency telephone number(s)**
**Emergency:** 1800 014 100

**SDS Date:** 01 May 2024

## 2. HAZARDS IDENTIFICATION

**2.1 Classification of the substance or mixture**
CLASSIFIED AS HAZARDOUS ACCORDING TO AUSTRALIAN WHS REGULATIONS
**GHS classification(s):** Oxidizing Liquids: Category 3
Serious Eye Damage / Eye Irritation: Category 2A
Carcinogenicity: Category 2

**2.2 Label elements**
**Signal word:** WARNING
**Pictogram(s):**

**Hazard statement(s)**

| | |
|---|---|
| H272 | May intensify fire; oxidizer. |
| H319 | Causes serious eye irritation. |
| H351 | Suspected of causing cancer. |

**Prevention statement(s)**

| | |
|---|---|
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. No smoking. |
| P220 | Keep/Store away from clothing/incompatible materials/ combustible materials. |
| P221 | Take any precaution to avoid mixing with combustibles/ incompatible materials. |
| P264 | Wash thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/ face protection. |

**Response statement(s)**

| | |
|---|---|
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313 | IF exposed or concerned: Get medical advice / attention. |
| P370 + P378 | In case of fire: Use appropriate media for extinction. |

**Storage statement(s)**

| | |
|---|---|
| P405 | Store locked up. |

**Disposal statement(s)**

| | |
|---|---|
| P501 | Dispose of contents/container in accrordance with relevant regulations. |

**2.3 Other hazards**
No information provided.

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

**3.1 Substances / Mixtures**

| Ingredient | CAS Number | EC Number | Content |
|---|---|---|---|
| AMMONIUM NITRATE | 6484-52-2 | 229-347-8 | 48 to 78% |
| CALCIUM NITRATE | 13780-06-8 | 237-424-2 | 0 to 26% |
| WATER | 7732-18-15 | 231-791-2 | 9 to 23% |
| OILS & HYDROCARBONS | 68334-30-5 | 269-822-7 | 0 to 10% |
| SODIUM NITRATE | 7631-99-4 | 231-554-3 | 0 to 13% |
| THIOUREA | 62-56-6 | 200-543-5 | <1% |
| ACETIC/CITRIC ACID | - | - | <1% |
| pH BUFFERS | - | - | <1% |
| UREA | 57-13-6 | 200-315-5 | 0 to 8% |
| EMULSIFIER(S) | - | - | 1 to 3% |

## 4. FIRST AID MEASURES

**4.1 Description of first aid measures**

| | |
|---|---|
| **Eye** | If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes. |
| **Inhalation** | If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. |
| **Skin** | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor. |
| **Ingestion** | For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). Urgent hospital treatment is likely to be needed. If swallowed, do not induce vomiting. |
| **First aid facilities** | Eye wash facilities should be available. |

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**4.2 Most important symptoms and effects, both acute and delayed**
Over exposure may result in methaemoglobinemia, where the blood's oxygen-carrying capacity is reduced.

**4.3 Immediate medical attention and special treatment needed**
Treat as for nitrate overexposure (methemoglobinemia).

## 5. FIRE FIGHTING MEASURES

**5.1 Extinguishing media**
Use an extinguishing agent suitable for the surrounding fire.

**5.2 Special hazards arising from the substance or mixture**
Non flammable. In fire situation, water will evaporate & there is some potential for explosion (at high temperature and pressure). May evolve toxic gases (ammonium nitrate, nitrogen oxides) when heated to decomposition.

**5.3 Advice for firefighters**
Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

**5.4 Hazchem code**
1Y

| | |
|---|---|
| 1 | Coarse Water Spray. |
| Y | Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off. |

## 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures**
Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

**6.2 Environmental precautions**
Prevent product from entering drains and waterways.

**6.3 Methods of cleaning up**
Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

**6.4 Reference to other sections**
See Sections 8 and 13 for exposure controls and disposal.

## 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling**
Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation.
Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

**7.2 Conditions for safe storage, including any incompatibilities**
Store in a cool, dry, well ventilated area, preferably outdoor or detached, removed from direct sunlight, incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.

**7.3 Specific end use(s)**
No information provided.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**8.1 Control parameters**
**Exposure standards**

| Ingredient | Reference | TWA | | STEL | |
|---|---|---|---|---|---|
| | | ppm | mg/m³ | ppm | mg/m³ |
| Diesel fuel (ACGIH) | SWA (AUS) | -- | 100 | -- | -- |

**Biological limits**
No biological limit values have been entered for this product.

**8.2 Exposure controls**
**Engineering controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**PPE**

| | |
|---|---|
| **Eye / Face** | Full Face Shield. |
| **Hands** | Wear PVC or rubber gloves. |
| **Body** | Wear coveralls. |
| **Respiratory** | At high vapour levels, wear an Air-line respirator. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance** | VISCOUS CREAM COLOURED LIQUID |
| **Odour** | FUEL OIL OR KEROSENE ODOUR |
| **Flammability** | EXPLOSIVE |
| **Flash point** | NOT AVAILABLE |
| **Boiling point** | NOT AVAILABLE |
| **Melting point** | NOT AVAILABLE |
| **Evaporation rate** | NOT AVAILABLE |
| **pH** | < 4 |
| **Vapour density** | NOT AVAILABLE |
| **Specific gravity** | 1.30 to 1.46 |
| **Solubility (water)** | INSOLUBLE |
| **Vapour pressure** | NOT AVAILABLE |
| **Upper explosion limit** | NOT AVAILABLE |
| **Lower explosion limit** | NOT AVAILABLE |
| **Partition coefficient** | NOT AVAILABLE |
| **Autoignition temperature** | NOT AVAILABLE |
| **Decomposition temperature** | NOT AVAILABLE |
| **Viscosity** | 40,000 cP to 70,000 cP |
| **Explosive properties** | NOT AVAILABLE |
| **Oxidising properties** | OXIDISING LIQUID |
| **Odour threshold** | NOT AVAILABLE |

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity**
Powerful oxidising agent.

**10.2 Chemical stability**
Powerful oxidising agent. Stable under recommended conditions of storage.

**10.3 Possibility of hazardous reactions**
Polymerization will not occur.

**10.4 Conditions to avoid**
Avoid heat, sparks, open flames and other ignition sources.



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**10.5 Incompatible materials**
Oxidising agent. Incompatible with combustible materials, reducing agents (e.g. sulphites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), metals, heat and ignition sources.

**10.6 Hazardous decomposition products**
May evolve nitrogen oxides (nitrous oxide) and ammonium nitrate when heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

**11.1 Information on toxicological effects**
**Acute toxicity**
**Information available for the product:** Based on available data, the classification criteria are not met.

**Information available for the ingredient(s):**

| Ingredient | Oral Toxicity (LD50) | Dermal Toxicity (LD50) | Inhalation Toxicity (LC50) |
|---|---|---|---|
| AMMONIUM NITRATE | 2217 mg/kg (rat) | - | - |
| FUELS, DIESEL (GASOIL - UNSPECIFIED) | 7500 mg/kg (rat) | - | - |
| SODIUM ACETATE ANHYDROUS | 3530 mg/kg (rat) | - | > 30 g/m³/1 hour (rat) |
| THIOUREA | 125 mg/kg (rat) | - | - |

| | |
|---|---|
| **Skin** | Contact may result in irritation, redness, rash and dermatitis. |
| **Eye** | Contact may result in irritation, lacrimation and redness. |
| **Sensitisation** | Not classified as causing skin or respiratory sensitisation. |
| **Mutagenicity** | Not classified as a mutagen. |
| **Carcinogenicity** | Diesel fuels, distillate (light) is not classifiable as to its carcinogenicity to humans (IARC Group 3). |
| **Reproductive** | Not classified as a reproductive toxin. |
| **STOT – single exposure** | Over exposure may result in irritation of the nose and throat, with coughing. |
| **STOT – repeated exposure** | Not classified as causing organ damage from repeated exposure. |
| **Aspiration** | Not classified as causing aspiration. |

## 12. ECOLOGICAL INFORMATION

**12.1 Toxicity**
No information provided.

**12.2 Persistence and degradability**
No information provided.

**12.3 Bioaccumulative potential**
No information provided.

**12.4 Mobility in soil**
No information provided.

**12.5 Other adverse effects**
Ammonium nitrate is a nutrient in water. Spills can cause massive algal blooms in static waters and affect local species population balance in the aquatic environment. If water is used to disperse ammonium nitrate spilled on soil, the solution produced can end up in the groundwater. Ammonium nitrate will be taken up by bacteria. Nitrate is more persistent in water than the ammonium ion.

## 13. DISPOSAL CONSIDERATIONS

**13.1 Waste treatment methods**
**Waste disposal** For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. For large quantities, contact the manufacturer/supplier for additional information. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
**Legislation** Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE


| | LAND TRANSPORT (ADG) | SEA TRANSPORT (IMDG / IMO) | AIR TRANSPORT (IATA / ICAO) |
|---|---|---|---|
| **14.1 UN Number** | 3375 | 3375 | PROH |
| **14.2 Proper Shipping Name** | AMMONIUM NITRATE EMULSION | AMMONIUM NITRATE EMULSION | Air transport PROHIBITED under the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air in passenger and cargo aircraft. |
| **14.3 Transport Hazard Class** | 5.1 | 5.1 | None Allocated |
| **14.4 Packing Group** | II | II | None Allocated |

**14.5 Environmental hazards**
No information provided

**14.6 Special precautions for user**
**Hazchem code** 1Y
**GTEPG** REFER
**EMS** F-H, S-Q

**Other Information**
AIR TRANSPORT PROHIBITED under the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air in passenger aircraft and cargo aircraft.

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## 15. REGULATORY INFORMATION

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

| | |
|---|---|
| **Poison schedule** | Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). |
| **Classifications** | Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.<br>The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)]. |
| **Hazard codes** | Carc. Carcinogen<br>E Explosive<br>Xi Irritant |
| **Risk phrases** | R2 Risk of explosion by shock, friction, fire or other sources of ignition.<br>R36 Irritating to eyes.<br>R40 Limited evidence of a carcinogenic effect. |
| **Safety phrases** | S34 Avoid shock and friction.<br>S35 This material and its container must be disposed of in a safe way. |
| **Inventory listing(s)** | **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**<br>All components are listed on AICS, or are exempt. |

## 16. OTHER INFORMATION

**Additional information**

**EXPLOSIVES & BLASTING AGENTS:** Refer to Local State and Federal legislation that specifically relates to the use of Explosives. Users of products described in this ChemAlert Report are advised to ensure familiarity and compliance with the appropriate legal requirements (e.g. Regulations) prior to the use of this product. Where any further information is required, users may contact their local authority in Explosives and Dangerous Goods.

**EXPLOSIONS:** Fires involving explosives or explosive mixtures may undergo further explosions and rapid propagation. Police and emergency personnel should be notified immediately. Evacuate individuals to a safe sheltered area at least 800 metres away. If possible remove vehicles and further heat and ignition sources from the area. Do not return to areas until at least one hour after fire and explosions have ceased.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:** The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**HEALTH EFFECTS FROM EXPOSURE:** It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**Abbreviations**

| | |
|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| CAS # | Chemical Abstract Service number - used to uniquely identify chemical compounds |
| CNS | Central Nervous System |
| EC No. | EC No - European Community Number |
| EMS | Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods) |
| GHS | Globally Harmonized System |
| GTEPG | Group Text Emergency Procedure Guide |
| IARC | International Agency for Research on Cancer |
| LC50 | Lethal Concentration, 50% / Median Lethal Concentration |
| LD50 | Lethal Dose, 50% / Median Lethal Dose |
| $mg/m^3$ | Milligrams per Cubic Metre |
| OEL | Occupational Exposure Limit |
| pH | relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). |
| ppm | Parts Per Million |
| STEL | Short-Term Exposure Limit |
| STOT-RE | Specific target organ toxicity (repeated exposure) |
| STOT-SE | Specific target organ toxicity (single exposure) |
| SUSMP | Standard for the Uniform Scheduling of Medicines and Poisons |
| SWA | Safe Work Australia |
| TLV | Threshold Limit Value |
| TWA | Time Weighted Average |



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