

# SAFETY DATA SHEET

## EZIPUMP ANE

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Product name:** EZIPUMP ANE

**Synonym(s):** AMMONIUM NITRATE EMULSION • ANE • EZIPUMP

#### 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:** Suite 1, 103 Great Eastern Hwy, Rivervale, WA, 6103, AUSTRALIA

**Telephone:** +61 8 6250 8200

**Fax:** +61 8 9473 2379

**Email:** info@johnex.com.au

**Website:** www.johnex.com.au

#### 1.4 Emergency telephone number(s)

**Emergency:** 1800 014 100

**SDS Date:** 04 Apr 2017

### 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 accordance 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	45 to 55%
CALCIUM NITRITE	13780-06-8	237-424-2	30 to 40%
WATER	7732-18-15	231-791-2	14 to 18%
FUELS, DIESEL (GASOIL - UNSPECIFIED)	68334-30-5	269-822-7	3 to 6%
SODIUM ACETATE ANHYDROUS	127-09-3	204-823-8	<0.5%
THIOUREA	62-56-6	200-543-5	<0.5%
EMULSIFIER(S)	-	-	2 to 4%

### 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.

#### 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/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
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

<b>Eye / Face</b>	Wear splash-proof goggles.
<b>Hands</b>	Wear PVC or rubber gloves.
<b>Body</b>	Wear coveralls.
<b>Respiratory</b>	At high vapour levels, wear an Air-line respirator.



### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Appearance</b>	VISCOUS CREAM COLOURED LIQUID
<b>Odour</b>	FUEL OIL OR KEROSENE ODOUR
<b>Flammability</b>	EXPLOSIVE
<b>Flash point</b>	NOT AVAILABLE
<b>Boiling point</b>	NOT AVAILABLE
<b>Melting point</b>	NOT AVAILABLE
<b>Evaporation rate</b>	NOT AVAILABLE
<b>pH</b>	< 4
<b>Vapour density</b>	NOT AVAILABLE
<b>Specific gravity</b>	1.30 to 1.46
<b>Solubility (water)</b>	INSOLUBLE
<b>Vapour pressure</b>	NOT AVAILABLE
<b>Upper explosion limit</b>	NOT AVAILABLE
<b>Lower explosion limit</b>	NOT AVAILABLE
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	40,000 cP to 70,000 cP
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	OXIDISING LIQUID
<b>Odour threshold</b>	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/m <sup>3</sup> /1 hour (rat)
THIOUREA	125 mg/kg (rat)	-	-

<b>Skin</b>	Contact may result in irritation, redness, rash and dermatitis.
<b>Eye</b>	Contact may result in irritation, lacrimation and redness.
<b>Sensitisation</b>	Not classified as causing skin or respiratory sensitisation.
<b>Mutagenicity</b>	Not classified as a mutagen.
<b>Carcinogenicity</b>	Diesel fuels, distillate (light) is not classifiable as to its carcinogenicity to humans (IARC Group 3).
<b>Reproductive</b>	Not classified as a reproductive toxin.
<b>STOT – single exposure</b>	Over exposure may result in irritation of the nose and throat, with coughing.
<b>STOT – repeated exposure</b>	Not classified as causing organ damage from repeated exposure.
<b>Aspiration</b>	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)
<b>14.1 UN Number</b>	3375	3375	PROH
<b>14.2 Proper Shipping Name</b>	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.
<b>14.3 Transport Hazard Class</b>	5.1	5.1	None Allocated
<b>14.4 Packing Group</b>	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.

## 15. REGULATORY INFORMATION

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

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

### 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 <sup>3</sup>	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

## 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.

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