

SDS 2295 Ethylamine 70%

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**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Company Name

**ECP Limited**

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<b>Product</b>	Ethylamine				<b>Code</b>	2295
<b>CAS#</b>	<b>HSNO#</b>	<b>UN #</b>	<b>DG Class/es</b>	<b>Packing group #</b>	<b>Tracking?</b>	<b>Handlers Certificate?</b>
75-04-7	HSR001127	2270	3 , 8	II	No	No

**Recommended use:** Laboratory Investigations

**2. Hazards identification**

**2.1. New Zealand HSNO classification**

HSNO Classification:

3.1B - 6.1C - 6.5B 6.9B 8.2A - 8.3A - 9.1D - 9.2B - 9.3B

3.1B - Flammable Liquid: High Hazard

6.1C - Substance that is acutely toxic via inhalation and ingestion

6.5B - Substance that is a contact sensitiser

6.9B - Substance that is harmful to human target organs or systems

8.2A - A substance that is corrosive to dermal tissue

8.3A - A substance that is corrosive to ocular tissue

9.1D - Substance that is slightly harmful to the aquatic environment or is otherwise designed for biocidal action

9.2B - Substance that is ecotoxic in the soil environment

9.3B - Substance that is ecotoxic to terrestrial vertebrates

**2.2 GHS Label elements, including precautionary statements**

Signal word – **Danger**



Pictograms

Hazard statement(s) H220 Extremely flammable gas. H302 Harmful if swallowed. H311 Toxic in contact with skin. H316 Causes mild skin irritation. H318 Causes serious eye damage. H332 Harmful if inhaled.

Precautionary statement(s) Prevention P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. Response P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. P322 Specific measures (see supplemental first aid instructions on this label). P330 Rinse mouth. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P361

Remove/Take off immediately all contaminated clothing. P363 Wash contaminated clothing before reuse. P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely. P381 Eliminate all ignition sources if safe to do so. Storage P403 Store in a well-ventilated place. P405 Store locked up. Disposal P501 Dispose of contents/ container to an approved waste disposal plant. 2.3 Other hazards Lachrymator. Lachrymator., Rapidly absorbed through skin.

### 3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Ethylamine	75-04-7	70 %
	Water	732-18-5	30%

### 4. First aid measures

<b>Inhalation</b>	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.
<b>Ingestion</b>	DO NOT INDUCE VOMITING. Wash out mouth with water. Seek IMMEDIATE medical attention.
<b>Skin</b>	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. Seek medical attention.
<b>Eye</b>	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek immediate medical attention.
<b>First Aid Facilities</b>	Eye wash station, safety shower and normal washroom facilities.
<b>Advice to Doctor</b>	Treat symptomatically.

### 5. Firefighting measures

<b>Suitable Extinguishing Media</b>	In case of large fire use water spray or alcohol foam. In case of small fire use carbon dioxide (CO <sub>2</sub> ), dry chemical, dry sand or limestone.
<b>Hazards from Combustion Products</b>	Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide, nitrogen oxides and ammonia gas.
<b>Specific Methods</b>	Water spray may be used to cool closed containers exposed to fire. Retain expended liquids from fire fighting for later disposal.
<b>Specific Hazards</b>	This product is highly flammable. Vapours are heavier than air and will 'travel' to low-level areas e.g. sumps, drains, etc. and flashback. Precautions should be taken to eliminate the build up of explosive mixtures.
<b>Hazchem Code</b>	2WE
<b>Precautions in connection with Fire</b>	Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

## 6. Accidental release measures

<b>Emergency Procedures</b>	Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.
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## 7. Handling and storage

<b>Precautions for Safe Handling</b>	Open containers cautiously as contents may be under pressure. Use only in a well ventilated area. DO NOT store or use in confined spaces. Do not enter these areas without respiratory protection or until the atmosphere has been checked. Keep tank covered and containers sealed when not in use. Build up of mists or vapours in the atmosphere must be prevented. Avoid inhalation of vapour and mists. Do not use near welding or other ignition sources and avoid sparks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues. Do not smoke. Ground all vessels, pipelines and other equipment containing flammable liquids. Avoid mixing pure material with contaminated material. Do not use compressed air for filling, discharging or handling. Exposure without protection must be prevented in order to lessen the possibility of disorders. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. Washing hands prior to eating, drinking, smoking or using toilet facilities.
<b>Conditions for Safe Storage</b>	Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Always keep in containers made of the same material as the supply container. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Do not stack more than 3 pallets high. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all State and Federal regulations.

## 8. Exposure controls/personal protection

National Exposure Standards	Name	STEL (mgm3)	STEL (ppm)	TWA (mgm3)	TWA (ppm)	FootNote
	ethylamine	75	25	30	10	
<b>Biological Limit Values</b>	No biological limit allocated.					
<b>Other Exposure Information</b>	As published by the National Occupational Health and Safety Commission (NOHSC): As published by the New Zealand Occupational Safety and Health Service (OSH): TWA - the Time-Weighted Average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute					

period which should not be exceeded at any time during a normal eight-hour workday.

**Engineering Controls** Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 2430.3.1:1997 : Classification of hazardous areas - Examples of area classification – General, for further information concerning ventilation requirements.

**Respiratory Protection** If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.

**Eye Protection** Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

**Hand Protection** Wear gloves of impervious material such as Neoprene, Impermeable gloves, Cuffed butyl rubber gloves and Nitrile gloves. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

**Body Protection** Suitable protective clothing should be worn e.g. cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended.

## **9. Physical and chemical properties**

**Appearance** Mobile colourless liquid.

**Odour** Ammoniacal odour.

**Melting Point**

**Boiling Point**

**Solubility in Water** Complete (100%)

**Specific Gravity** 0.71 @ 20°C (water = 1)

**pH Value** > 12.50

**Vapour Pressure** 195 mmHg at 21°C

**Vapour Density (Air=1)** 2.52 (air = 1)

**Flash Point** > - 26°C

**Flammability** HIGHLY FLAMMABLE. This product should be stored and used in a well ventilated area away from naked flames, sparks and other sources of ignition. Electrically link and ground metal containers for transfers of the product to prevent accumulation of static electricity. Keep the container tightly closed.

**Auto-Ignition Temperature** 312°C

**Flammable Limits - Lower** 1.8%

**Flammable Limits - Upper** 10.1%

**Molecular Weight** 45.08

## 10. Stability and reactivity

**Chemical Stability** Stable under normal use conditions.

**Conditions to Avoid** Extremes of temperature and direct sunlight.

**Incompatible Materials** Mineral acids, Organic acids, Oxidising agents, Sodium or calcium hypochlorites.

**Hazardous Decomposition Products** Nitrogen oxide can react with water vapours to form corrosive nitric acid. Carbon monoxide in a fire. Carbon dioxide in a fire. Ammonia when heated. Nitrogen oxides in a fire. Irritating and toxic fumes at elevated temperatures. Nitric acid in a fire. Nitrosamines. The oxides of nitrogen gases (except nitrous oxide) emitted on decomposition are highly toxic.

**Hazardous Reactions** Reaction with peroxides may result in violent decomposition of peroxides possibly creating an explosion. Nitrites, nitrosating agents. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot material.

**Hazardous Polymerization** Will not occur.

## 11. Toxicological information

**Toxicology Information** Acute toxicity:  
LD50 (oral, rat): 540 mg/kg  
LC50 (inhalation, rat) 4hr: 4000 ppm  
LD50 (dermal, rabbit): 0.82 mg/kg

**Inhalation** Harmful by inhalation. Inhalation of mists or vapours will result in respiratory irritation and possible harmful corrosive effects including lesions of the nasal septum, pulmonary edema, pneumonitis and emphysema.

**Ingestion** Harmful if swallowed. Ingestion of this product may cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.

**Skin** Harmful in contact with skin. Skin contact will cause redness, itching, irritation, severe

pain and chemical burns with resultant tissue destruction.

**Eye** Eye contact will cause stinging, blurring, tearing, severe pain and possible permanent corneal damage.

**Chronic Effects** Chronic exposure to some other airborne amine chemicals can cause allergic respiratory sensitization. Repeated or prolonged skin contact with some amine chemicals can cause allergic skin sensitization.

## 12. Ecological information

**Ecotoxicity** Not available.

**Persistence / Degradability** This material may be degraded by an unacclimated biomas.

**Mobility** Not available.

**Environment Protection** Do not allow product to enter drains, waterways or sewers.

**Acute Toxicity - Fish** LC50 Rainbow trout, 96 hr: 167-198 ppm (hard water)  
LC50 Rainbow trout, 96 hr: 25 ppm (soft water)

**Acute Toxicity - Daphnia** LC50 Daphnia magna 24 hr: 161-168 ppm

**Acute Toxicity - Algae** EC50 Algae 96hr: 20 ppm

## 13. Disposal considerations

**Disposal Considerations** Dispose of waste according to federal, EPA and state regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain hazardous residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Advise flammable nature.

## 14. Transport Information Table

		<b>ADR/RID – European packaging certification</b>	<b>IMDG International Maritime Dangerous Goods Code</b>	<b>IATA – DGR International Air Travel Association – Dangerous Goods Regulations</b>
<b>14.1</b>	<b>UN Number</b>	2270	2270	2270
<b>14.2</b>	<b>UN Proper Shipping name</b>	Ethylamine	Ethylamine	Ethylamine
<b>14.3</b>	<b>Transport Hazard Class</b>	3	3	3
<b>14.4</b>	<b>Packaging group</b>	II	II	II
<b>14.5</b>	<b>Environmental Hazards</b>	Nil	Nil	Nil

14.6	Special precautions for user	Nil
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## 15. Regulatory information

**National and or International Regulatory Information** New Zealand:  
Classified as Hazardous according to the Hazardous Substances (Minimum degrees of hazard) Regulations 2001.  
Group standard:  
Approval Number:  
HSR001127

**Hazard Category** Harmful,Corrosive,Highly Flammable

## 16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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