



MATERIAL SAFETY DATA SHEET

CONTACT : **LEONID CHEMICALS**

62/A-2 1st Stage, Yeshwanthpur Industrial Suburb
Ashokpuram School Road
Bangalore-560 022, Karnataka, INDIA
Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

1-ETHYLPIPERAZINE, 98+%

SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:

1-Ethylpiperazine, 98+%

Catalog Numbers: E044

Synonyms:

Company Information:

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SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

CAS # : 5308-25-8
Chemical Name : 1-Ethylpiperazine
% : 98+%
EINECS# : 226-166-6
Hazard Symbols : C
Risk Phrases : 10 34 20

SECTION 3- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Flammable. Causes burns. Harmful by inhalation.

Potential Health Effects

Eye:

Causes eye burns.

Skin:

Causes skin burns.

Ingestion:

Causes gastrointestinal tract burns.

Inhalation:

Harmful if inhaled. Causes chemical burns to the respiratory tract.

Chronic:

Not available.



SECTION 4- FIRST AID MEASURES

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Treat symptomatically and supportively.

SECTION 5- FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Flammable liquid and vapor.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

SECTION 6- ACCIDENTAL RELEASE MEASURES

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool..

SECTION 7 - HANDLING and STORAGE

Handling:

Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.

Storage:

Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Clear liquid
Color:	colorless to yellow
Odor:	amine-like
pH:	Not available.
Vapor Pressure:	3 mbar @ 20 deg C
Viscosity:	Not available.
Boiling Point:	157 deg C
Freezing/Melting Point:	-60 deg C
Autoignition Temperature:	> 350 deg C (> 662.00 deg F)
Flash Point:	47 deg C (116.60 deg F)
Explosion Limits, lower:	1.20 vol %
Explosion Limits, upper:	9.10 vol %
Decomposition Temperature:	> 350 deg C
Solubility in water:	Soluble.
Specific Gravity/Density:	.8950
Molecular Formula:	C ₆ H ₁₄ N ₂
Molecular Weight:	114.19

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:

Not available.

Conditions to Avoid:

Incompatible materials, ignition sources.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong acids.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization:

Has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 5308-25-8: TM0815500

LD50/LC50:

CAS# 5308-25-8: Inhalation, rat: LC50 = >9219 mg/m³/4H; Oral, rat:
LD50 = 2158 mg/kg.

Carcinogenicity:

1-Ethylpiperazine -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 - TRANSPORT INFORMATION

IATA

Shipping Name: AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.*

Hazard Class: 8

UN Number: 2734

Packing Group: II

IMO

Shipping Name: AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.*

Hazard Class: 8

UN Number: 2734

Packing Group: II

RID/ADR

Shipping Name: AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.*

Hazard Class: 8

UN Number: 2734

Packing Group: II

SECTION 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 10 Flammable.

R 20 Harmful by inhalation.

R 34 Causes burns.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 5308-25-8: 2

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

None of the chemicals in this product are listed on the DSL/NDSL list.

CAS# 5308-25-8 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 5308-25-8 is not listed on the TSCA inventory.

It is for research and development use only.

SECTION 16 - ADDITIONAL INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way 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.