

MATERIAL SAFETY DATA SHEET**Product Name:** Ethylenediamine**CAS No.:** 107-15-3**Version:** 0**1. Identification**

Product Code : 90907
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2. Hazards Identification**Hazard classification**

Flammable liquids : Category 3
Acute toxicity, Oral : Category 4
Acute toxicity, Inhalation : Category 4
Acute toxicity, Dermal : Category 3
Skin corrosion : Category 1B
Respiratory sensitisation : Category 1
Skin sensitisation : Category 1
Chronic aquatic toxicity : Category 3

Label elements**Hazard symbol****Signal word****Hazard statement**

: Danger
: Flammable liquid and vapour.
Harmful if swallowed or if inhaled
Toxic in contact with skin.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Harmful to aquatic life with long lasting effects.
Precautionary statement : Avoid breathing vapours.
Avoid release to the environment.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
IF IN EYES: Rinse cautiously with water for several minutes.

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Supplemental Hazard Statements : None.

Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/ physician.

3. Composition/information on ingredients

Ingredient	CAS No
Ethylenediamine	107-15-3

4. First Aid Measures**Description of first aid measures**

General advice : Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact : Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Swallowed : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed : The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed Treatment : No data available

5. Fire fighting measures

Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture : Carbon oxides, Nitrogen oxides (NO_x)

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- Advice for firefighters** : Wear self contained breathing apparatus for firefighting if necessary
- Further information** : Use water spray to cool unopened containers.

6. Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures** : Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions** : Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- Methods and materials for containment and cleaning up** : Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations
- Reference to other sections** : For disposal see section 13.

7. Handling and Storage

- Precautions for safe handling** : Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
- Conditions for safe storage, including any incompatibilities** : Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Specific end use(s)** : No data available

8. Exposure Controls Personal Protection**Control parameters****Components with workplace control parameters****Exposure controls**

- Appropriate engineering controls** : Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN
- Personal protective equipment**
- Eye/face protection** : Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin Protection Hand** : Handle with gloves. Gloves must be inspected prior to use. Use

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- protection** : proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- Body Protection** : Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace..
- Respiratory protection** : Respiratory protection is required.

9. Physical and Chemical Properties

- Appearance** : Liquid.
- Odor** : No data available
- pH** : 12.2 at 110 g/l at 20 °C
- Melting point/freezing point** : 8,5 °C
- Initial boiling point and boiling range** : 118 °C
- Flash Point** : 38 °C - closed cup
- Vapor pressure** : 13 h Pa at 20 °C
- Vapor density** : 2.07 - (Air = 1.0)
- Relative density** : 0.899 g/mL at 25 °C
- Solubility in water** : soluble
- Solubility (other)** : No data available
- Formula** : C₂H₈N₂
- Molecular Weight** : 60.10g/mol

10. Stability and Reactivity

- Reactivity** : No data available
- Chemical stability** : Stable under recommended storage conditions.
- Possibility of hazardous reactions** : No data available
- Conditions to avoid** : Oxidizing agents, Phosphorus halides, Aldehydes, Organic halides
- Incompatible materials** : Oxidizing agents, Strong acids
- Hazardous decomposition products** : No data available

11. Toxicological Information**Information on toxicological effects**

- Acute toxicity** : LD50 Oral - Rat - 1.200 mg/kg
Remarks: Behavioral: Ataxia.
LC50 Inhalation - Rat - 4 h - 14,7 mg/l

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	LD50 Dermal Dermal - Rabbit - 560 mg/kg
Skin corrosion/irritation	: Causes burns.
Serious eye damage/eye irritation	: Causes eye irritation
Respiratory or skin sensitization	: May cause allergic respiratory and skin reactions
Germ cell mutagenicity	: No data available
Carcinogenicity	: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	: No data available
Specific target organ toxicity - single exposure	: No data available
Specific target organ toxicity - repeated exposure	: No data available.
Aspiration hazard	: No data available
Signs and Symptoms of Exposure	: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological Information

Toxicity	: Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 115,7 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 3 mg/l - 48 h Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - 151 mg/l - 96 h
Persistence and degradability	: Biotic/Aerobic - Exposure time 28 d Result: 94 % - Readily biodegradable
Bioaccumulative potential	: No data available.
Mobility in soil	: No data available.
Other adverse effects	: Toxic to aquatic life. Avoid release to the environment.

13. Disposal consideration

Disposal instructions	: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	: Dispose of as unused product.

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	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	1604	ETHYLENEDIAMINE	8	II	NO
IMDG	1604	ETHYLENEDIAMINE	8	II	NO
IATA	1604	ETHYLENEDIAMINE	8	II	NO

15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

16. Other Information**Issue Date :01/08/2014****Version : 0**

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