



Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date: 20.01.2009

Revision: 12.01.2009

1 Identification of the substance/preparation and of the company/undertaking

Product name: **2-HYDROXYETHYLHYDRAZINE**
Synonyms: N-(2-Hydroxyethyl)hydrazine; 2-Hydrazinoethanol
Application of the substance/the preparation: Chemical intermediate; chemical speciality
Manufacturer/Supplier: VUP, a.s.
Nábrežná 4
971 04 Prievidza, Slovakia
Tel: 00421-46-5430841
Fax: 00421-46-5430261
E-mail: kbu@vupas.sk

2 Hazards identification

Hazard description:

T Toxic

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R40 Limited evidence of a carcinogenic effect.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

Name	CAS	%	EINECS
2-Hydroxyethylhydrazine	109-84-2	96	203-711-6

4 First aid measures

After eye contact:

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

After skin contact:

In case of contact, immediately wash skin with soap and copious amounts of water.

After ingestion:

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

After inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

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5 Fire-fighting measures

Extinguishing media:

Suitable: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special risks:

Specific Hazard(s): Combustible liquid. Emits toxic fumes under fire conditions.

Special protective equipment for firefighters:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 Accidental release measures

Personal precaution procedures to be followed in case of leak or spill:

Evacuate area.

Procedure(s) of persona precaution(s):

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for cleaning up:

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

7 Handling and storage

Handling:

Directions for Safe Handling: Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage:

Conditions of Storage: Keep tightly closed. Keep away from heat and open flame. Store in a cool dry place.

8 Exposure controls/personal protection

Engineering Controls:

Safety shower and eye bath. Use only in a chemical fume hood.

General hygiene measures:

Wash contaminated clothing before reuse. Wash thoroughly after handling.

Personal protective equipment

Eyes:

Chemical safety goggles.

Hand:

Compatible chemical-resistant gloves.

Respirators:

Use respirators and components tested and proved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

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9 Physical and chemical properties

Physical State:	Liquid
Color:	colorless
pH:	Not available.
Vapor Pressure:	Not available.
Viscosity:	Not available.
Boiling Point:	155-160 °C/32 torr; 218-220 °C/754 mm Hg
Freezing/Melting Point:	-70 °C
Flash Point:	73 °C Method: closed cup
Explosion Limits, lower:	Not available.
Explosion Limits, upper:	Not available.
Refractive index:	1.4961 (lit.)
Specific Gravity/Density:	1.123 g/cm ³ /25 °C
Molecular Formula:	HO-CH ₂ -CH ₂ -NH-NH ₂
Molecular Weight:	76.09

10 Stability and reactivity

Stability:

Materials to Avoid: Strong oxidizing agents, Strong acids.

Hazardous decomposition products:

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

11 Toxicological information

RTECS: KL2800000

Acute toxicity

LD50 – Intraperitoneal – Rat 100 mg/kg

Remarks: Behavioral:Ataxia. Behavioral:Somnolence (general depressed activity). Behavioral:Convulsions or effect on seizure threshold.

LD50 – Oral – Mouse 139 mg/kg

Signs and symptoms of exposure:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Gastrointestinal disturbances. Exposure can cause: May cause cyanosis (blue-gray coloring of skin and lips caused by lack of oxygen).

Route of exposure:

Skin Contact: Causes skin irritation.

Multiple Routes: Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract. Harmful if swallowed, inhaled, or absorbed through skin.

Chronic exposure - carcinogen

Mouse

Route of Application: Oral

Exposure Time: 78W

Result: Tumorigenic: Carcinogenic by RTECS criteria. Lungs,

Thorax, or Respiration: Tumors. Liver:Tumors.

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Chronic exposure - mutagen

Mouse

200 MG/KG
Oral
DNA inhibition

Hamster

200 UMOL/L
Cell Type: lung
Cytogenetic analysis

Hamster

100 UMOL/L
Cell Type: lung
Sister chromatid exchange.

12 Ecological information

Data not yet available.

13 Disposal considerations

Substance disposal:

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14 Transport information

RID/ADR

UN Number: 2810
Hazard Class: 6.1
Packaging group: III
Shipping Name: Toxic liquid, organic, n.o.s.

IMDG

UN number: 2810
Hazard class: 6.1
Packaging group: III
Shipping name: Toxic liquid, organic, n.o.s.
Marine pollutant: No
Sever marine pollutant: No
Technical name: Required

IATA

UN number: 2810
Hazard class: 6.1
Packaging group: III
Shipping name: Toxic liquid, organic, n.o.s.
Inhalation packing group I: No
Technical name: Required

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15 Regulatory information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T Toxic

Risk Phrases:

23/24/25 – 40 Toxic by inhalation, in contact with skin and if swallowed. Limited evidence of a carcinogenic effect.

Safety Phrases:

23-26-36/37/39-45 Do not breathe vapor. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16 Other information

This Safety Data Sheet is not a Product Specification. It is based on our present knowledge and experience and it is intended to serve as a guide for safe handling of the product regarding to health and environmental aspects.

Explanation R-phrases

23/24/25 - 40 Toxic by inhalation, in contact with skin and if swallowed. Limited evidence of a carcinogenic effect.