

SAFETY DATA SHEET

Version: v1
Revision Date: 2026-05-13
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : N-(2-Hydroxyethyl)ethylenediamine
Product Number : H100512
Brand : aladdin
CAS-No. : 111-41-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION
Address : 14078 Meridian Parkway,
Riverside, CA. 92518
Telephone : +1 (833) 552-7181
Fax : no data available

1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300
CHEMTREC®, Outside the USA :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity (oral): Category 5

Skin corrosion/irritation: Category 1B

Serious eye injury/eye irritation: Category 1

Skin sensitization: Category 1

Reproductive toxicity: Category 1B

Specific target organ systemic toxicity (single exposure): Category 3 (respiratory irritation)

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word

Danger

Hazard statement(s)

H303	May be harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment (see ... on this label).
P363	Wash contaminated clothing before reuse.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep 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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Additional precautionary phrases are located throughout the safety data sheet.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: 2-(2-Aminoethylamino)ethanol; N-(2-Aminoethyl)ethanolamine; AEEA
Formula	: C ₄ H ₁₂ N ₂ O
Molecular weight	: 104.15
CAS No.	: 111-41-1
EC-NO.	: 203-867-5

Component	Classification	Concentration
N-(2-Hydroxyethyl)ethylenediamine		
	no data available	≥99%

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

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

In case of 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.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

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

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2)

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Phone: +1 (833) 552-7181 Email: QualityAssurance@aladdinsci.com Website: <https://www.aladdinsci.com/>

Suitable extinguishing media

Water, Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

In combustion toxic fumes may form.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Do not attempt to take action without suitable protective clothing. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains or river. Alert the neighbourhood to the presence of fumes or gas.

6.3 Methods and materials for containment and cleaning up

Mix with sand or vermiculite. Sweep up and shovel. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Wash hands thoroughly after handling. Ensure there is sufficient ventilation of the area. Normal measures for preventive fire protection. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Room temperature, argon filled storage

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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 EN166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use 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. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN(EU).

Control of environmental exposure

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: liquid color: colorless to light yellow
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	-28°C at mmHg
f) Initial boiling point and boiling range	238-240°C
g) Flash point	144 °C
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	1.03
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Oxidant acid Warning! Nitrosamine may be released when contacting with nitrite, nitrate and Nitrous acid

10.4 Conditions to avoid

moisture-proof

10.5 Incompatible materials

Strong oxidizing agents, Oxidizing agents, Do not store near acids., Copper, Zinc, Iron

10.6 Hazardous decomposition products

Carbon monoxide, Carbon dioxide, Nitrogen oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral Rat 3000 mg/kg

Remarks: (RTECS)

Symptoms: Swallowing can cause severe burns to the mouth and throat, and there is a risk of perforation of the esophagus and stomach.

Symptoms: Mucosal irritation, cough, shortness of breath, possible damage:, damage to respiratory tract

LD50 percutaneous rabbit ->2000 mg/kg

Remarks: (External MSDS)

Skin corrosion/irritation

Skin - Rabbit Result: Causing burns. Remarks: (External MSDS)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Causing burns. Remarks: (RTECS) Causing serious eye damage.

Respiratory or skin sensitisation

In animal experiments: Result: Positive Remarks: (External MSDS)

Germ cell mutagenicity

Test type: Ames test Result: Negative Remarks: (External MSDS)

Carcinogenicity

no data available

Reproductive toxicity

May cause harm to the fetus. Suspected of causing harm to Fertility.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

Registration of toxic effects of chemical substances: KJ6300000

This substance causes significant damage to mucosal tissue, upper respiratory tract, eyes, and skin., Spasm, inflammation, sore throat, spasm, inflammation, bronchitis, pneumonia, Pulmonary edema, burning sensation: cough, wheezing, laryngitis, shortness of breath, headache, nausea

Under specific circumstances, skin contact with nitrate or nitric acid can lead to the formation of ammonium nitrite, which has been proven to cause cancer in animal experiments

Other hazards cannot be ruled out.

Operate in accordance with good industrial hygiene and safety practices.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50- *Oncorhynchus mykiss* ->100 mg/l -96 hours

Toxicity to *Daphnia magna* and other aquatic Invertebrate

EC50- *Daphnia magna* -190 mg/l -48 hours

Toxicity to algae IC50- *Desmodesmus subspicatus* (green algae) -210 mg/l -72 hours

Toxicity to bacteria EC50- *Pseudomonas putida* -135 mg/l -17 hours

12.2 Persistence and degradability

Result: 0% - not easily biodegradable. (OECD Test Guide 301C)

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Consult state, local or national regulations for proper disposal. Hand over to authorised disposal company as

hazardous waste.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 2735

Packing group: II

Class: 8

Proper shipping name: Amines, liquid,
corrosive, n.o.s., or Polyamines, liquid,
corrosive, n.o.s.

Reportable Quantity(RQ):no data
available

Poison Inhalation Hazard:no data
available

Environmental Hazards: NO

IMDG

UN number: 2735

Packing group: II

EMS-No:no data available

Proper shipping name: Amines, liquid, corrosive, n.o.s., or Polyamines, liquid, corrosive, n.o.s.

IATA

UN number: 2735

Packing group: II

Class: 8

Proper shipping name: Amines, liquid, corrosive, n.o.s., or Polyamines, liquid, corrosive, n.o.s.

SECTION 15: Regulatory information

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

SECTION 16: Other information

Prepared By

Regulatory Affairs

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SDS sections updated v1

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