

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

SAFETY DATA SHEET

Version: v1

Revision Date: 2024-10-21

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Ethylene oxide
Product Number : E298673
Brand : aladdin
CAS-No. : 75-21-8(Isooctane)

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)

Flammable liquid (category 2), H225

Skin corrosion/irritation (category 2), H315

Specific target organ toxicity (single exposure) (category 3), narcotic effects, H336

Aspiration hazard (category 1), H304

Acute (short-term) aquatic hazard (category 1), H400

Long-term aquatic hazard (category 1), H410

2.2 GHS Label elements, including precautionary statements

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Pictogram



Signal word

Danger

Hazard statement(s)

H225 Highly Flammable liquid and vapor
 H304 May be fatal if swallowed and enters airways
 H315 Causes skin irritation
 H336 May cause drowsiness or dizziness
 H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P210 Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
 P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof [electrical/ventilating/lighting/...] equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264 Wash hands [and ...] thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P331 Do NOT induce vomiting.
 P391 Collect spillage.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
 P303+P361+P353 IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
 P332+P313 IF SKIN irritation occurs: Get medical advice/attention.
 P370+P378 In case of fire: Use ... to extinguish.
 P405 Store locked up.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container to an approved waste disposal plant.
 P304+P340+P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. if you feel unwell.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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

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Synonyms	: Oxirane
Formula	: C2H4O
Molecular weight	: 44.05

Component	Classification	Concentration
Isooctane		
CAS-No. : 540-84-1	Flam. Liq. 2; Skin Irrit. 2; STOT SE 3; Asp. Tox. 1; Aquatic Acute 1; Aquatic	
EC-No. : 208-759-1	Chronic 1; H225, H315, H336, H304, H400, H410 Concentration limits: >= 20 %: STOT SE 3, H336; M-Factor - Aquatic Acute: 10M-Factor - Aquatic Chronic: 1	

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

After swallowing: If the injured person vomits, please be careful. There is a risk of inhalation into the lungs! Keep the airway open. Suction and vomiting may cause lung dysfunction. Immediately Call the doctor.

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) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) foam dry powder

Unsuitable extinguishing media

For this substance/mixture, there are no restrictions on extinguishing agents.

5.2 Special hazards arising from the substance or mixture

Carbon oxides Flammable Be careful of tempering. Steam is heavier than air, so it can spread over the ground. When caught on fire, it may cause the production of hazardous gases or vapors Form explosive mixtures with air at mild

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temperatures

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

Avoid breathing vapors, mist or gas. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. 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.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep the container sealed and store it in a dry and well ventilated place. Suggested storage temperature 2-8 ° C

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

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under

appropriate government standards such as NIOSH (US) or EN 166(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

Impervious 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 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. 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	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available

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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	0.87
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

Possible violent reactions may occur with it: Strong oxidizing agent

10.4 Conditions to avoid

Heat up

10.5 Incompatible materials

Various plastics

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - Male and Female ->5000 mg/kg

(OECD Testing Guideline 401)

LC50 inhalation - rats - male and female -4 hours ->33.52 mg/l - vapor

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(OECD Testing Guideline 403)

Symptom: Mucosal irritation

LD50 transdermal rabbit male and female ->2000 mg/kg

(OECD Testing Guideline 402)

Skin corrosion/irritation

Skin - Rabbit Result: Irritation to the skin- 24 h (OECD Testing Guideline 404) Note: Repeated or long-term exposure may cause skin irritation and dermatitis, as this product has degreasing properties.

Serious eye damage/eye irritation

Eyes - Rabbit Result: No eye irritation (OECD Testing Guideline 405)

Respiratory or skin sensitisation

Maximum Response Test - Guinea Pig Result: Negative (OECD Testing Guideline 406)

Germ cell mutagenicity

Test type: Ames test Testing System: TA98 Metabolic activation: with or without metabolic activation effect

Method: OECD Testing Guideline 471 Result: Negative Test type: In vitro mammalian cell gene mutation assay

Testing system: human lymphoblasts Metabolic activation: with or without metabolic activation effect Method:

OECD Testing Guidelines 476 Result: Negative Test type: Out of period DNA synthesis test Species: Rat Cell type:

liver cells Route of infection: Oral route Method: OECD Testing Guidelines 486 Result: Negative

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness- Central nervous system

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

To our knowledge, the chemical, physical, and toxic properties of this substance have not been fully studied.

The following data are applicable to hydrocarbons with six to eighteen carbon in general fat: direct inhalation (smoke therapy, inhalation of spray, etc.) may lead to pneumonia, and in some cases may also lead to pulmonary edema After extensive absorption: anesthesia

Other hazards cannot be ruled out.

Operate in accordance with good industrial hygiene and safety regulations.

Liver - Irregular - Based on Human Evidence

SECTION 12: Ecological information

12.1 Toxicity

Semi static toxicity test for fish LC50- Oncorhynchus mykiss (rainbow trout) -0.11 mg/l -96 h (OECD testing guidelines 203)

Static toxicity test for Daphnia magna and other aquatic invertebrates EC50- Daphnia magna -0.4 mg/l -48 h

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Remarks: (Compared with similar products) (ECHA) Corresponding values have been specified for the following substances: 2,3,4-trimethylpentane

Toxicity to bacteria EC0- Pseudomonas putida -10000 mg/l Remarks: (IUCLID)

Static test for toxicity (chronic toxicity) to water fleas and other aquatic invertebrates EC50- Daphnia magna -0.23 mg/l -21 days (OECD Test Guideline 211)

12.2 Persistence and degradability

Aerobic - exposure time 28 days Result: 51.3% - has inherent biodegradability. (OECD Testing Guideline 301F)

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 1262

Proper shipping name: OCTANES

Environmental Hazards: yes

IMDG

UN number: 1262

Proper shipping name: OCTANES

IATA

UN number: 1262

Proper shipping name: OCTANES

Packing group: II

Reportable Quantity(RQ): no data available

Packing group: II

Packing group: II

Class: 3

Poison Inhalation Hazard: no data available

EMS-No: no data available

Class: 3

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SECTION 15: Regulatory information

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

SECTION 16: Other information

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