

SAFETY DATA SHEET

Version: v2
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Ethanol-1,1-d₂
Product Number : E471955
Brand : aladdin
CAS-No. : 1859-09-2

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

Serious eye injury/eye irritation: Category 2A

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H225 Highly Flammable liquid and vapor

H319 Causes serious eye irritation

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.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P321 Specific treatment (see ... on this label).

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.

P362+P364 Take off contaminated clothing and wash it before reuse.

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.

P332+P317 If skin irritation occurs: Get medical help.

P319 Get medical help if you feel unwell.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : no data available

Formula : C₂H₆O

Molecular weight : 48.08

CAS No. : 1859-09-2

EC-NO. : 693-230-1

Component	Classification	Concentration
Ethanol-1,1-d ₂	no data available	≥98 atom% D, ≥95%

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.

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

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

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) 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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Carbon oxides

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

Use personal protective equipment. 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. 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 an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

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 inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2 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. Light sensitive ; Moisture sensitive , 2-8 °C, store away from light.

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

Gloves must be checked before use. Please use proper methods to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle the contaminated gloves carefully according to relevant laws and regulations and effective laboratory rules and procedures. Please clean and blow dry the protective gloves selected for your hands must meet the specifications given in regulation (EU) 2016 / 425 and the en 374 standard 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 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

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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	-114 °C-lit.
f) Initial boiling point and boiling range	78 °C - lit.
g) Flash point	14.0 °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	no data available
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

Explosive/exothermic hazardous reactants: hydrogen peroxide, perchlorate, perchlorate, nitrate, mercury nitrate (II), permanganate, nitrile peroxide, strong oxidizing agent, nitrosylation compound, peroxide, sodium potassium halide oxide, calcium hypochlorite (calcium hypochlorite), nitrogen dioxide, metal oxide, uranium hexafluoride, iodide, chlor alkali metal, alkaline earth metal, alkaline oxide, ethylene oxide, silver nitrate, potassium permanganate, and concentrated sulfuric acid. May cause fire or produce flammable gases or vapors when in contact with them: halogen halogen compounds, chromium oxide (VI), chromium oxychloride, fluoride, phosphorus oxide, platinum nitrate, and potassium permanganate

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Alkali metals, Ammonia, Oxidizing agents, Peroxides

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

D50 Oral - Rat - Male and Female -10470 mg/kg

(OECD Testing Guideline 401)

Note: Corresponding values have been specified for the following substance: ethanol

LC50 inhalation - rats - male and female -4 h -124.7 mg/l - vapor

(OECD Testing Guideline 403)

Note: Corresponding values have been specified for the following substance: ethanol

Transcutaneous: No data available

Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation -24 hours (OECD Testing Guideline 404) Note: Corresponding values have been specified for the following substance: ethanol

Serious eye damage/eye irritation

Eyes - Rabbit Result: Causes severe eye irritation. (OECD Testing Guideline 405) Note: Corresponding values have been specified for the following substance: ethanol

Respiratory or skin sensitisation

Maximum Response Test - Guinea Pig Result: Negative (OECD Testing Guideline 406) Note: Corresponding values have been specified for the following substance: methanol

Germ cell mutagenicity

Test type: Ames test Testing System: Salmonella Typhimurium Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guideline 471 Result: Negative Note: Corresponding values have been specified for the following substances: Ethanol test type: In vitro mammalian cell gene mutation test Testing System: Mouse Lymphoma Cells Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guidelines 476 Result: Negative Note: Corresponding values have been specified for the following substance: ethanol Test Type: Explicit Lethal Test Species: Mouse Route of infection: Oral route Method: OECD Testing Guideline 478 Result: Positive results were obtained in some in vivo experiments. Note: Corresponding values have been specified for the following substance: ethanol

Carcinogenicity

no data available

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

Additional Information

Repeated toxicity - rat - male - oral - level of no observed harmful effects -1730 mg/kg - observed harmful effects

Minimum level of fruit -3200 mg/kg

Note: Corresponding values have been specified for the following substance: ethanol

SECTION 12: Ecological information

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

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

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur.

Observe all federal, state and local regulations when disposing of the substance.



Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

DOT (US)		
UN number: 1170	Packing group: II	Class: 3
Proper shipping name: ETHANOL	Reportable Quantity(RQ):no data available	Poison Inhalation Hazard:no data available
Environmental Hazards: no		
IMDG		
UN number: 1170	Packing group: II	EMS-No:no data available
Proper shipping name: ETHANOL		
IATA		
UN number: 1170	Packing group: II	Class: 3
Proper shipping name: ETHANOL		

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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