

SAFETY DATA SHEET

Version: v2
Revision Date: 2026-02-04
Print Date: 2026-02-04

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

1.1 Product identifiers

Product name : Acetonitrile-¹³C₂
Product Number : A473852
Brand : aladdin
CAS-No. : 1722-25-4

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 liquids (Category 2), H225

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Eye irritation (Category 2), H319

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

H302+H312+H332

Harmful if swallowed, in contact with skin or if inhaled

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.

P270

Do not eat, drink or smoke when using this product.

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).

P330

Rinse mouth.

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.

P403+P235

Store in a well-ventilated place. Keep cool.

P501

Dispose of contents/container to an approved waste disposal plant.

P264+P265

Wash hands [and ...] thoroughly after handling. Do not touch eyes.

P301+P317

IF SWALLOWED: Get medical help.

P305+P354+P338

IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P317

Get emergency medical help.

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

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Methyl cyanide- ¹³ C ₂
Formula	: $^{13}\text{CH}_3^{13}\text{CN}$
Molecular weight	: 43.04
CAS No.	: 1722-25-4
EC-NO.	: 687-235-8

Component	Classification	Concentration
Acetonitrile- ¹³ C ₂		
	no data available	≥99 atom% ¹³ C, ≥98%

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

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, Nitrogen oxides (NO_x)

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 vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. 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 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 vapor 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. Moisture sensitive ; Air sensitive , Store at room temperature, filled with argon, and 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	form: liquid color: Clear Colorless
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	-48 °C-lit.
f) Initial boiling point and boiling range	81 - 82 °C - lit.
g) Flash point	2.00 °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

Possible violent reactions: Oxidants produce smoke, sulfuric acid, concentrated sulfuric acid, strong alkali, strong reducing agents produce dangerous gases or come into contact with harmful substances. Smoke: Acid reacts with it, posing an explosion hazard. Nitrate, perchlorate, perchlorate, concentrated sulfuric acid, and heating. There may be

a risk of fire or the production of flammable gases or vapors when interacting with oxidants such as nitric acid, nitrogen dioxide, and catalysts

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

acids, Bases, Oxidizing agents, Reducing agents, Alkali metals

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Mouse - Male and Female -617 mg/kg

(OECD Testing Guideline 401)

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

LC50 inhalation - mice - male and female -4 h -6.022 mg/l - vapor

(OECD Testing Guideline 403)

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

Acute toxicity estimate transdermal -1500 mg/kg

(Expert judgment)

Note: Classified according to Annex 6 (Tables 3.1/3.2) of EU CLP Regulation 1272/2008

Corresponding values have been specified for the following substance: acetonitrile

Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation -4 hours (OECD Testing Guideline 404) Note: Corresponding values have been specified for the following substance: acetonitrile

Serious eye damage/eye irritation

Eyes - Rabbit Result: Causes severe eye irritation. (OECD Testing Guideline 405) Note: Classified according to Annex 6 (Tables 3.1/3.2) of EU CLP Regulation 1272/2008 Corresponding values have been specified for the following substance: acetonitrile

Respiratory or skin sensitisation

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

Germ cell mutagenicity

Test Type: Ames Test System: Salmonella Typhimurium Metabolism Activation: with or without metabolic activation

Result: Negative Remarks: (ECHA) Corresponding values have been specified for the following substances: Acetonitrile Test Type: In vitro mammalian cell gene mutation test Test System: Chinese hamster ovary cell metabolism activation: with or without metabolic activation Method: US-EPA Result: Negative Remarks: Corresponding values have been specified for the following substances: Acetonitrile Test Type: Mutant (mammalian cell test): Chromosomal mutation negative Testing system: Metabolic activation of Chinese hamster ovary cells: with or without metabolic activation. Results: Positive results were obtained in some in vitro experiments. Note: (International Toxicology Program) has specified corresponding values for the following substances: acetonitrile test type: sister chromatid exchange test test system: Chinese hamster ovary cell metabolic activation: metabolic activation result: negative note: sisters chromatid exchange has specified corresponding values for the following substances: acetonitrile test system: Saccharomyces cerevisiae metabolic activation: no metabolic activation result: positive note: Cytogenetic analysis (ECHA) has specified corresponding values for the following substances: acetonitrile test type: in vitro mammalian cell gene mutation test test system: Mouse lymphoma test metabolic activation: with or without metabolic activation method: OECD Test Guideline 476 Result: Negative Remarks: Corresponding values have been specified for the following substances: Acetonitrile Test Type: Micronucleus Test Species: Mice Exposure Route: Intraperitoneal Method: OECD Test Guideline 474 Result: Negative Remarks: Corresponding values have been specified for the following substances: Acetonitrile

Carcinogenicity

There is no carcinogenic effect in animal experiments.

Reproductive toxicity

Animal experiments have not shown any impact on fertility.

Specific target organ toxicity - single exposure

This substance or mixture is not classified as a specific target organ system toxin and is intended for one-time exposure.

Specific target organ toxicity - repeated exposure

This substance or mixture has not been classified as a specific target organ system toxin and has been repeatedly exposed.

Aspiration hazard

No inhalation toxicity classification

Additional Information

Treat as cyanide poisoning. Always carry a cyanide first aid kit with proper usage instructions. The onset of symptoms generally depends on the production of cyanide

There is a delay in completion. Nausea, vomiting, diarrhea, headache, dizziness, rash, cyanosis, excitement, inhibition, drowsiness, damage assessment, lack of coordination, coma, death

SECTION 12: Ecological information

12.1 Toxicity

Toxicity test on fish using flow-through method LC50- Pimephales promelas -1640 mg/l -96 h

Remarks: (ECHA)

Corresponding values have been specified for the following substance: acetonitrile

Static toxicity test on algae NOEC - *Phaeodactylum tricornutum* -400 mg/l -72 h

(ISO 10253)

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

(Acetonitrile-13C2)

Static test ErC50- *Phaeodactylum tricornutum* -9696 mg/l -72 h

(ISO 10253)

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

(Acetonitrile-13C2)

Toxicity note for bacteria: Corresponding values have been specified for the following substances: acetonitrile

(Acetonitrile-13C2)

Toxicity to fish (chronic toxicity) water flow test NOEC - medaka -102 mg/l -21 days

(OECD Testing Guidelines 204)

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

12.2 Persistence and degradability

Biodegradability result: 70% - rapidly biodegradable. (OECD Testing Guideline 310) Note: Corresponding values have been specified for the following substance: acetonitrile

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

Expected not to be adsorbed by soil.

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.

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

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: 1648

Packing group: II

Class: 3

Proper shipping name: ACETONITRILE
Reportable Quantity(RQ):no data available

Poison Inhalation Hazard:no data available

Environmental Hazards: no

IMDG

UN number: 1648

Packing group: II

EMS-No:no data available

Proper shipping name: ACETONITRILE

IATA

UN number: 1648

Packing group: II

Class: 3

Proper shipping name: ACETONITRILE

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

ALADDIN SCIENTIFIC CORPORATION

Email: QualityAssurance@aladdinsci.com

Creation Date

24-Aug-2023

Revision Date

04-Feb-2026

Print Date

04-Feb-2026

Revision Summary

SDS sections updated v2

Disclaimer

Copyright Aladdin Co. Ltd. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aladdin Co. Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.