

SAFETY DATA SHEET

Version: v1
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Acetone-¹³C₃
Product Number : A473994
Brand : aladdin
CAS-No. : 93628-01-4

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

Identified uses : It is only for scientific research purposes, not for medicine, family
standby medicine or other purposes.

1.3 Company

Company :
Address :
Telephone :
Fax : no data available

1.4 Emergency telephone number

CHEMTREC®, Inside the USA :
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

Skin corrosion/irritation : Category 3

Serious eye damage/eye irritation: Category 2A

Specific target organ toxicity - single exposure: Category 3 (Narcotic effects)

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word

Danger

Hazard statement(s)

H225 Highly Flammable liquid and vapor

H316 Causes mild skin irritation

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

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.

P303+P361+P353 IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P332+P313 IF SKIN irritation occurs: Get medical advice/attention.

P337+P313 IF eye irritation persists: 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

3.1 Substances

Synonyms	: no data available
Formula	: ¹³ C ₃ H ₆ O
Molecular weight	: 61.06
CAS No.	: 93628-01-4
EC-NO.	: 685-092-6

Component	Classification	Concentration
Acetone- ¹³ C ₃		
	no data available	≥99 atom% ¹³ C

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

no data available

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 no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Combustible. Pay attention to flashback. Vapours are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient 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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

7.2 Conditions for safe storage, including any incompatibilities

Store at room temperature

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	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
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

Vapours may form explosive mixture with air.

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

Avoid moisture. Risk of ignition or formation of inflammable gases or vapours with: chromosulfuric acid chromyl chloride ethanolamine Fluorine Strong oxidizing agents strong reducing agents Nitric acid chromium(VI) oxide Risk of explosion with: nonmetallic oxyhalides halogen-halogen compounds Chloroform nitrating acid nitrosyl compounds hydrogen peroxide halogen oxides organic nitro compounds peroxi compounds Exothermic reaction with: Bromine Alkali metals alkali hydroxides Halogenated hydrocarbon Sulphur dichloride phosphorous oxichloride

10.4 Conditions to avoid

Warming.

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - female - 5,800 mg/kg

Remarks: (ECHA)

The value is given in analogy to the following substances: acetone

Symptoms: Stomach/intestinal disorders, Risk of aspiration upon vomiting., Pulmonary failure possible after aspiration of vomit.

LC50 Inhalation - Rat - 4 h - 76 mg/l - vapour

Remarks: Unconsciousness

Drowsiness

Dizziness

The value is given in analogy to the following substances: acetone

LD50 Dermal - Rabbit - 20,000 mg/kg

Remarks: (IUCLID)

The value is given in analogy to the following substances: acetone

Skin corrosion/irritation

Skin - Rabbit Result: Mild skin irritation - 24 h (Draize Test) Remarks: (RTECS) The value is given in analogy to the following substances: acetone

Serious eye damage/eye irritation

Eyes - Rabbit Result: Eye irritation - 24 h (Draize Test) Remarks: (RTECS) The value is given in analogy to the following substances: acetone

Respiratory or skin sensitisation

Maximisation Test - Guinea pig Result: negative Remarks: (ECHA) The value is given in analogy to the following substances: acetone Chronic exposure may cause dermatitis.

Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative

Remarks: The value is given in analogy to the following substances: acetone Test Type: Ames test Test system:

Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Remarks: The value is given in analogy to the following substances: acetone Test Type: In vitro

mammalian cell gene mutation test Test system: Mouse lymphoma test Metabolic activation: without metabolic activation Method: OECD Test Guideline 476 Result: negative Remarks: The value is given in analogy to the following substances: acetone Carcinogenicity No data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

Inhalation - May cause drowsiness or dizziness. - Narcotic effects Remarks: Classified according to Regulation (EU) 1272/2008 The value is given in analogy to the following substances: acetone

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption:

Headache

Salivation

Nausea

Vomiting

Dizziness

narcosis

Coma

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Kidney - Irregularities - Based on Human Evidence

Skin - Dermatitis - Based on Human Evidence

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 6,210

mg/l

End point: mortality

Exposure time: 96 h

Test Type: flow-through test

Analytical monitoring: yes

Method: OECD Test Guideline 203

Remarks: The value is given in analogy to the following substances:

The value is given in analogy to the following substances: acetone

Toxicity to daphnia and

other aquatic invertebrates

: LC50 (Daphnia pulex (Water flea)): 8,800 mg/l

End point: mortality

Exposure time: 48 h

Test Type: static test

Remarks: (ECHA)

The value is given in analogy to the following substances:

The value is given in analogy to the following substances: acetone

Toxicity to algae/aquatic

plants

: NOEC (M.aeruginosa): 530 mg/l

Exposure time: 8 d

Test Type: static test

Method: DIN 38412

Remarks: (maximum permissible toxic concentration)

(IUCLID)

The value is given in analogy to the following substances:

The value is given in analogy to the following substances: acetone

Toxicity to daphnia and

other aquatic invertebrates (Chronic toxicity)

: NOEC (Daphnia magna (Water flea)): 2,212 mg/l

End point: reproduction rate

Exposure time: 28 d

Test Type: flow-through test

Remarks: (ECHA)

The value is given in analogy to the following substances:

The value is given in analogy to the following substances: acetone

Toxicity to microorganisms

: EC50 (activated sludge): 61.15 mg/l

Exposure time: 30 min

Test Type: static test

Method: OECD Test Guideline 209

Remarks: The value is given in analogy to the following substances:

The value is given in analogy to the following substances: acetone

12.2 Persistence and degradability

Biodegradability : aerobic Inoculum: activated sludge Result: Readily biodegradable. Biodegradation: 91 % Exposure time: 28 d Method: OECD Test Guideline 301B Remarks: The value is given in analogy to the following substances:

The value is given in analogy to the following substances: acetone

12.3 Bioaccumulative potential

Bioaccumulation : Bioconcentration factor (BCF): < 10 Remarks: Does not bioaccumulate.

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Not persistent, bioaccumulative, and toxic (PBT). Not very persistent and very bioaccumulative (vPvB).

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: 1090

Proper shipping name: ACETONE

Packing group: II

Reportable Quantity(RQ):no data available

Class: 3

Poison Inhalation Hazard:no data available

Environmental Hazards: NO

IMDG

UN number: 1090

Proper shipping name: ACETONE

Packing group: II

EMS-No:no data available

IATA

UN number: 1090

Proper shipping name: ACETONE

Packing group: II

Class: 3

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

Email: QualityAssurance@aladdinsci.com

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



ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

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