

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 : Acetaldehyde
Product Number : A433553
Brand : aladdin
CAS-No. : 75-07-0

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)
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids Category 1

Acute oral toxicity Category 4

Serious Eye Damage/Eye Irritation Category 2

Germ Cell Mutagenicity Category 2

Carcinogenicity Category 1A

Specific target organ toxicity (single exposure) Category 3

Target Organs - Respiratory system, Central nervous system (CNS).

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2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H224	Extremely flammable liquid and vapor
H302	Harmful if swallowed
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H341	Suspected of causing genetic defects
H350	May cause cancer
Precautionary statement(s)	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P202	Do not handle until all safety precautions have been read and understood.
P235	Keep cool.
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.
P281	Use personal protective equipment as required.
P330	Rinse mouth.
P301+P312	IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.
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+P311	IF exposed or concerned: Call a POISON CENTER/doctor/...
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal plant.

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

Hazardous polymerization may occur;Lachrymator (substance which increases the flow of tears)May form explosive peroxides;Cancer

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SECTION 3: Composition/information on ingredients**3.1 Substances**

Synonyms	: Ethanal
Formula	: C ₂ H ₄ O
Molecular weight	: 44.05
CAS No.	: 75-07-0
EC-NO.	: 200-836-8

Component	Classification	Concentration
Acetaldehyde	no data available	puriss. p.a., anhydrous, ≥99.5%(GC)

SECTION 4: First aid measures**4.1 Description of first aid measures**

General advice

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

If inhaled

Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

If swallowed

Clean mouth with water and drink afterwards plenty of water.

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

Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable extinguishing media

no data available

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5.2 Special hazards arising from the substance or mixture

Oxocarbon Heating may cause an explosion., Uncontrolled polymerization reaction can cause the sealed container to burst., Pay attention to the accumulation of vapor at explosive concentrations, as vapor can accumulate on the ground Low lying areas. Flammable Be careful of backfire. Vapor is heavier than air, so it can diffuse along the ground. When a fire occurs, it may cause the generation of hazardous gases or vapors Forming explosive mixtures with air at mild temperatures

5.3 Advice for firefighters

wear self-contained breathing and full protective gear.

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 as required. Ensure adequate ventilation.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). 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

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

7.2 Conditions for safe storage, including any incompatibilities

2-8 °C, 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: Clear
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	-123°C
f) Initial boiling point and boiling range	21°C
g) Flash point	-27°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

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l) Vapour density	no data available
m) Relative density	0.785
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

Reacts with air to form peroxides.

10.4 Conditions to avoid

Excess heat. Exposure to air. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials

Strong oxidizing agents, Acids, Bases, Metals, Strong reducing agents, Alcohols, Amines, Halogens

10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation (OECD Testing Guidelines 404)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Severe irritation Remarks: (RTECS) Due to steam stimulation, tears may flow Conjunctivitis

Respiratory or skin sensitisation

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

Germ cell mutagenicity

Suspected of causing genetic defects. Test type: Ames test Testing system: Escherichia coli/Salmonella

typhimurium Metabolic activation: with or without metabolic activation effect Result: Negative Remarks: (ECHA)

Carcinogenicity

no data available

Reproductive toxicity

no data available

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: AB1925000

Blurred vision, loss of consciousness, headache, vomiting, nausea, Pulmonary edema. The effect may be delayed.,
Spasms, sneezing, coughing, shortness of breath

To our knowledge, this chemical, physical, and toxic property has not been fully studied yet

SECTION 12: Ecological information

12.1 Toxicity

Static toxicity test for fish LC50- Pimephales promelas -31 mg/l -96 hours

Remarks: (ECHA)

Toxicity to Daphnia magna and other aquatic Invertebrate

Static test EC50- Daphnia magna - approximately 48.3 mg/l -48 hours

Remarks: (ECHA)

Static toxicity test on algae ErC50- Pseudokirchniella subcapita ->100 mg/l -72 hours

(OECD Testing Guidelines 201)

Static test EC10- Pseudokirchniella subcapitata ->100 mg/l -72 hours

(OECD Testing Guidelines 201)

12.2 Persistence and degradability

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Aerobic Biochemical oxygen demand - exposure time 14 days Result: 80% - rapidly 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

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: UN1089

Packing group: I

Class: 3

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

Poison Inhalation Hazard: no data available

Environmental Hazards: no

IMDG

UN number: UN1089

Packing group: I

EMS-No: no data available

Proper shipping name: ACETALDEHYDE

IATA

UN number: UN1089

Packing group: I

Class: 3

Proper shipping name: ACETALDEHYDE

SECTION 15: Regulatory information

Please note that waste disposal should also meet local regulations. If applicable, the chemical meets the requirements of the Regulations on the Safety Management of Hazardous Chemicals (adopted by the State Council

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on December 4, 2013).

SECTION 16: Other information

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Regulatory Affairs

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SDS sections updated v1

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