ALADDIN SCIENTIFIC CORPORATION
14078 Meridian Parkway, Riverside, CA. 92518

SAFETY DATA SHEET

Version: v1
Revision Date: 2024-01-28
Print Date: 2024-02-04

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

1.1 Product identifiers

Product name	:	Isovaleric acid
Product Number	:	I108280
Brand	:	aladdin
CAS-No.	:	503-74-2

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 (Class 4), H227

Acute toxicity, oral (Class 5), H303

Skin corrosion/irritation (Category 1B), H314

Severe eye injury/eye irritation (Category 1), H318

Acute (short-term) aquatic hazard (Category 3), H402

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)	
H227	Combustible liquid
H303	May be harmful if swallowed
H314	Causes severe skin burns and eye damage
H402	Harmful to aquatic life
Precautionary statement(s)	
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P264	Wash hands [and …] thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P312	Call a POISON CENTER or doctor/... if you feel unwell.
P363	Wash contaminated clothing before reuse.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
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	:	Isopentanoic acid;3-Methylbutyric acid;3-Methylbutanoic acid
Formula	:	C5H10O2
Molecular weight	:	102.13
CAS No.	:	503-74-2
EC-NO.	:	207-975-3

Component	Classification	Concentration
Isovaleric acid		
	no data available	Standard for GC, ≥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
Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.
In case of skin contact
Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.
In case of eye contact
Rinse with pure water for at least 15 minutes. Consult a doctor.
If swallowed
Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

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 dry chemical, carbon dioxide or alcohol-resistant foam.
Unsuitable extinguishing media
no data available

5.2 Special hazards arising from the substance or mixture

Oxocarbon combustible

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours.Avoid contacting with skin and eye. Use personal

protective equipment.Wear chemical impermeable gloves. Ensure adequate ventilation.Remove all sources of ignition. Evacuate personnel to safe areas.Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Operators should be specially trained and strictly abide by the operating procedures. Operation and disposal should be carried out in a place with local ventilation or general ventilation facilities. Avoid eye and skin contact and avoid breathing vapor. See Section 8 for personal protective measures. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. If canning is required, the flow rate should be controlled, and there should be a grounding device to prevent the accumulation of static electricity. Avoid contact with incompatible substances such as oxidizing agents (see section 10 for incompatible substances). When handling, it should be lightly loaded and unloaded to prevent damage to packaging and containers. Empty containers may be harmful residues. Wash hands after use and prohibit eating or drinking in the workplace. Equipped with the corresponding variety and quantity of fire fighting equipment and leakage emer

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool and ventilated warehouse.

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: Colorless
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	-35°C
f) Initial boiling point and boiling range	176°C
g) Flash point	70°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	0.93
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

no data available

10.4 Conditions to avoid

Heat, flames, and sparks

10.5 Incompatible materials

Alkali, oxidant, reducing agent

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 oral - rats - males and females -2500 mg/kg

(OECD Testing Guidelines 401)

Symptoms: Swallowing can cause severe burns to the mouth and throat, and there is a risk of perforation of the esophagus and stomach.

LC0 inhalation - rats -4 hours -2.48 mg/l

(OECD Testing Guidelines 403)

Inhalation: This substance has strong destructive effects on tissues, mucous membranes, and upper respiratory tract

Symptoms: Mucosal irritation, cough, shortness of breath, possible damage:, damage to respiratory tract

Transcutaneous: No data available

Skin corrosion/irritation
Skin - Rabbit Result: Corrosive -3 minutes -1 hour (OECD Testing Guidelines 404)
Serious eye damage/eye irritation
Causing serious eye damage
Respiratory or skin sensitisation
no data available
Germ cell mutagenicity
Test type: micronucleus test Species: Mice Cell type: Red blood cells (erythrocytes) Poisoning route: oral route
Method: OECD Testing Guidelines 474 Result: Negative Remarks: (Compared with similar products)
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 - rats - males - oral administration -90 days - levels without observed harmful effects -5000 mg/kg

Remarks: (Compared with similar products)

(ECHA)

Corresponding values have been specified for the following substances: Sodium isovalerate 1-13C

Registration of toxic effects of chemical substances: NY1400000

This substance causes significant damage to mucosal tissue, upper respiratory tract, eyes, and skin., Inhalation may cause the following symptoms: spasm, inflammation, bronchitis,

Spasm, inflammation, sore throat, pneumonia, Pulmonary edema, poisoning symptoms, burning sensation: cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting

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

Other hazards cannot be ruled out.

Operate in accordance with good industrial hygiene and safety practices.

SECTION 12: Ecological information

12.1 Toxicity

Static toxicity test for fish LC50- Pimephales promelas -77 mg/l -96 hours

(OECD Testing Guidelines 203)

Remarks: (Compared with similar products)

Corresponding values have been specified for the following substances: valerenic acid

Toxicity to Daphnia magna and other aquatic Invertebrate

Static test EC50- Daphnia magna (Daphnia magna) -51.25 mg/l -48 hours

(OECD Testing Guidelines 202)

Remarks: (Compared with similar products)

Values are specified for the following substances: Isobutyric acid

Static toxicity test on algae ErC50- Pseudokirchniella subcapita -29.3 mg/l -72 hours

(OECD Testing Guidelines 201)

Remarks: (Compared with similar products)

Corresponding values have been specified for the following substances: valerenic acid

Static test NOEC - Pseudokirchniella subcapitata -6.38 mg/l -72 hours

(OECD Testing Guidelines 201)

Remarks: (Compared with similar products)

Corresponding values have been specified for the following substances: valerenic acid

Static test of toxicity to bacteria IC50- Tetrahymena pyriformis -224 mg/l -40 h

Remarks: (ECHA)

Fertilization tube test EC0- Activated sludge ->1000 mg/l

Remarks: (External MSDS)

12.2 Persistence and degradability

Aerobic - Exposure time 10 days Result: 58-66% - 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

Harmful to aquatic organisms. Avoid discharging into the surrounding environment.

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: 3265	Packing group: II	Class: 8
Proper shipping name: Organic acidic corrosive liquid, n.o.s. (isovaleric acid)	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: no		

IMDG

UN number: 3265	Packing group: II	EMS-No: no data available
Proper shipping name: Organic acidic corrosive liquid, n.o.s. (isovaleric acid)		

IATA

UN number: 3265	Packing group: II	Class: 8
Proper shipping name: Organic acidic corrosive liquid, n.o.s. (isovaleric acid)		

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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Creation Date	20-Jun-2023
Revision Date	28-Jan-2024
Print Date	04-Feb-2024
Revision Summary	SDS sections updated v1

Disclaimer

 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.