

Safety Data Sheet

2-Cyclohexen-1-one

1. Identification

Product name	2-Cyclohexen-1-one
Catalog#	A658
IUPAC name	Cyclohex-2-en-1-one
Product use/Restrictions on use	For laboratory research and manufacturing use.
Company	AK Scientific, Inc. 30023 Ahern Ave. Union City, CA 94587
Telephone	(510) 429-8835
Fax	(510) 429-8836
Website	www.aksci.com
Emergency contact number:	(510) 429-8835

2. Hazards Identification

GHS Classification

Flammable liquids (Category 3)

Acute toxicity, Oral (Category 3)

Acute toxicity, Inhalation (Category 3)

Acute toxicity, Dermal (Category 2)

Pictogram



Signal word

Danger

Hazard statement(s)

H226

H301 + H331

H310

Flammable liquid and vapor.

Toxic if swallowed. Toxic if inhaled.

Fatal in contact with skin.

Precautionary statement(s)

P210

P233

P240

P241

P242

P243

P261

P262

P264

P270

P271

P280

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Do not get in eyes, on skin, or on clothing.

Wash skin thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

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

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P301 + P310

P303 + P361 + P353

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P310

Immediately call a POISON CENTER or doctor/physician.

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P322	Specific measures (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P361	Remove/Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical, CO ₂ , water spray or alcohol-resistant foam for extinction.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

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

None

3. Composition/Information on Ingredients

Synonyms: No data available.

CAS#: [930-68-7]

Purity: 96% (HPLC)

EC#: 213-223-5

4. First Aid Measures**General information:** Immediately remove any clothing contaminated by the product. Move out of dangerous area. Consult a physician and show this safety data sheet.**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical aid.**Skin contact:** Immediately flush skin with running water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Obtain medical aid immediately.**Eye contact:** Immediately flush open eyes with running water for at least 15 minutes. Obtain medical aid immediately.**Ingestion:** Do NOT induce vomiting without medical advice. Rinse mouth with water. Never administer anything by mouth to an unconscious person. Obtain medical aid immediately.**Most important symptoms and effects, both acute and delayed:** No further information available. Please see headings 2 and 11.**Indication of any immediate medical attention and special treatment needed:** No further information available.**5. Fire Fighting Measure****Suitable extinguishing media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.**Specific hazards arising from the chemical:** Carbon oxides**Advice for firefighters:** As in any fire, wear a MSHA/NIOSH-approved or equivalent, pressure-demand, self-contained breathing apparatus and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion**6. Accidental Release Measures****Personal precautions, protective equipment and emergency procedures:** Wear protective equipment and keep unprotected personnel away. Ensure adequate ventilation. Remove all sources of ignition. Prevent further leak or spill if safe to do so. For personal protective equipment, please refer to heading 8.**Environmental precautions:** Do not let product enter drains, other waterways, or soil.**Methods and materials for containment and cleaning up:** Prevent further leak or spill if safe to do so. Vacuum, sweep up, or absorb with inert material and place into a suitable disposal container. Consult local regulations for disposal. Also, see heading 13.**7. Handling and Storage****Precautions for safe handling:** Avoid contact with skin, eyes, and personal clothing. Wash hands thoroughly after handling. Avoid breathing fumes. Use only with adequate ventilation. Wear suitable protective clothing, gloves, and eye/face protection. Keep away from sources of ignition. Minimize dust generation and accumulation. Keep container tightly closed. Open and handle container with care. Do not eat, drink, or smoke while handling.**Conditions for safe storage, including any incompatibilities:** Store in a tightly-closed container when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from sources of ignition. Light sensitive. Moisture sensitive.**8. Exposure Controls/Personal Protection**

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Exposure limits

OSHA PEL:	No data available.
NIOSH REL:	No data available.
ACGIH TLV:	No data available.

Appropriate engineering controls: Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Facilities storing or utilizing this material should be equipped with an eyewash fountain. Use adequate ventilation to keep airborne concentrations low.

Personal protection

Eyes:	Wear chemical splash goggles.
Hand:	Wear protective gloves.
Skin and body:	Wear protective lab coat and boots.
Respiratory:	Use NIOSH/MSHA or CEN approved respirator.

9. Physical and Chemical Properties

Physical State:	Light yellow to yellow clear liquid
Molecular Formula:	C ₆ H ₈ O
Molecular Weight:	96.13
Odor:	No data available.
pH:	No data available.
Boiling Point Range:	168°C
Freezing/Melting Point:	-53°C
Flash Point:	59°C
Evaporation Rate:	No data available.
Flammability (solid, gas):	Please see section 2.
Explosive limits:	No data available.
Vapor Pressure:	No data available.
Vapor Density:	No data available.
Solubility:	No data available.
Relative Density:	0.993
Refractive Index:	1.4875-1.4895
Volatility:	No data available.
Auto-ignition temperature:	No data available.
Decomposition Temperature:	No data available.
Partition Coefficient:	No data available.

10. Stability and Reactivity

Reactivity	No data available.
Chemical stability	Stable under recommended temperatures and pressures.
Possibility of hazardous reactions	No data available.
Conditions to avoid	Dust generation. Light. Moisture and water.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides

11. Toxicological Information

RTECS#	GW7000000
Acute toxicity	LC50 Inhalation-Rat-250ppm-4h; LD50 Skin-Rabbit-70mg/kg; LD50 Intraperitoneal-Mouse-170mg/kg; LD50 Oral-Rat-220mg/kg
Routes of exposure	Inhalation, eye contact, skin contact, ingestion.

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Symptoms related to the physical, chemical and toxicological characteristics

Skin contact may result in inflammation characterized by itching, scaling, reddening, blistering, pain or dryness. Eye contact may result in redness, pain or severe eye damage. Inhalation may cause irritation of the lungs and respiratory system. Overexposure may result in serious illness or death.

Carcinogenicity

IARC

Not classified.

NTP

Not listed.

OSHA

Not listed.

Acute toxic effects

Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

12. Ecological Information

Ecotoxicity	No data available.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.

13. Disposal Considerations

Disposal of waste: Chemical waste generators must determine whether a discarded chemical is classified as hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Observe all federal, state and local regulations when disposing of the substance.

Disposal of packaging: Do not reuse containers. Dispose of as unused product.

14. Transport Information**DOT (U.S.)**

UN number	2929
Proper shipping name	Toxic liquids, flammable, organic, n.o.s. (2-Cyclohexen-1-one)
Transport hazard class(es)	6.1(3)
Packing group	II

IATA

UN number	2929
Proper shipping name	Toxic liquid, flammable, organic, n.o.s. (2-Cyclohexen-1-one)
Transport hazard class(es)	6.1
Packing group	II

15. Regulatory Information

TSCA Chemical Inventory: This product is on the EPA Toxic Substance Control Act (TSCA) inventory. The product is supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720 et seq. The health risks have not been fully determined. Any information that is or becomes available will be supplied on an SDS sheet.

California Proposition 65: Not listed.

EC#: 213-223-5

NFPA rating:	Health:	3
	Flammability:	2
	Instability:	0

16. Additional Information

Revision Date: 4/27/2015

Printed Date: 1/29/2016

Disclaimer:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall AK Scientific be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if AK Scientific has been advised of the possibility of such damages.

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