

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : 3-Penten-2-one  
 Product Number : 145017  
 Brand : Aldrich  
 Company : Sigma-Aldrich Canada, Ltd  
 2149 Winston Park Drive  
 OAKVILLE ON L6H 6J8  
 CANADA  
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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : Methyl propenyl ketone  
 Formula : C<sub>5</sub>H<sub>8</sub>O  
 Molecular Weight : 84.12 g/mol

| CAS-No.                | EC-No.    | Index-No. | Concentration |
|------------------------|-----------|-----------|---------------|
| <b>Pent-3-en-2-one</b> |           |           |               |
| 625-33-2               | 210-888-3 | -         | -             |

**3. HAZARDS IDENTIFICATION****Emergency Overview****Target Organs**

Nerves., Liver

**Other hazards which do not result in classification**

Lachrymator.

**WHMIS Classification**

B2 Flammable Liquid  
 D1B  
 D2B

Flammable Liquid  
 Toxic by skin absorption  
 Moderate skin irritant  
 Moderate respiratory irritant  
 Moderate eye irritant

**HMS Classification**

Health Hazard: 2  
 Chronic Health Hazard: +  
 Flammability: 3  
 Physical hazards: 0

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**Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** Toxic if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.  
**Ingestion** May be harmful if swallowed.

**4. FIRST AID MEASURES****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**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 thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING MEASURES****Flammable properties**

Flash point 21 °C (70 °F) - closed cup

Ignition temperature no data available

**Suitable extinguishing media**

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**

Use water spray to cool unopened containers.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

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 vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods for cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**7. HANDLING AND STORAGE****Handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.  
 Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

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**Storage**

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. Store in cool place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face 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).

**Hand protection**

Handle with gloves.

**Eye protection**

Face shield and safety glasses

**Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form liquid

**Safety data**

pH no data available  
 Melting point no data available  
 Boiling point 121 - 124 °C (250 - 255 °F) - lit.  
 Flash point 21 °C (70 °F) - closed cup  
 Ignition temperature no data available  
 Lower explosion limit no data available  
 Upper explosion limit no data available  
 Vapour pressure 1,013 hPa (760 mmHg) at 121 °C (250 °F)  
 Density 0.862 g/mL at 25 °C (77 °F)  
 Water solubility no data available

**10. STABILITY AND REACTIVITY****Storage stability**

Stable under recommended storage conditions.

**Conditions to avoid**

Heat, flames and sparks.

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**Materials to avoid**

Oxidizing agents, Reducing agents, Strong bases

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

**Hazardous reactions**

Vapours may form explosive mixture with air.

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Oral - rat - 3,200 mg/kg

LD50 Dermal - rabbit - 431 mg/kg

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Signs and Symptoms of Exposure**

Cough, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** Toxic if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.  
**Ingestion** May be harmful if swallowed.  
**Target Organs** Nerves., Liver,

**Additional information**

RTECS: SB3850000

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

no data available

**Further information on ecology**

no data available

**13. DISPOSAL CONSIDERATIONS**

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**Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION****DOT (US)**

UN-Number: 1992 Class: 3 (6.1) Packing group: II  
 Proper shipping name: Flammable liquids, toxic, n.o.s. (Pent-3-en-2-one)  
 Marine pollutant: No  
 Poison Inhalation Hazard: No

**IMDG**

UN-Number: 1992 Class: 3 (6.1) Packing group: II EMS-No: F-E, S-D  
 Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (Pent-3-en-2-one)  
 Marine pollutant: No

**IATA**

UN-Number: 1992 Class: 3 (6.1) Packing group: II  
 Proper shipping name: Flammable liquid, toxic n.o.s. (Pent-3-en-2-one)  
 IATA Passenger: Not permitted for transport

**15. REGULATORY INFORMATION****DSL Status**

All components of this product are on the Canadian DSL list.

**WHMIS Classification**

B2 Flammable Liquid  
 D1B  
 D2B

Flammable Liquid  
 Toxic by skin absorption  
 Moderate skin irritant  
 Moderate respiratory irritant  
 Moderate eye irritant

**16. OTHER INFORMATION****Further information**

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 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. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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