

**SAFETY DATA SHEET**

Version 4.10  
Revision Date 03/03/2015  
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**1. PRODUCT AND COMPANY IDENTIFICATION**

**1.1 Product identifiers**

Product name : 3-Pentanone  
  
Product Number : 127604  
Brand : Sigma-Aldrich  
Index-No. : 606-006-00-5

CAS-No. : 96-22-0

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

Identified uses : Laboratory chemicals, Manufacture of substances

**1.3 Details of the supplier of the safety data sheet**

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA  
  
Telephone : +1 800-325-5832  
Fax : +1 800-325-5052

**1.4 Emergency telephone number**

Emergency Phone # : (314) 776-6555

**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), H225  
Eye irritation (Category 2A), H319  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, Central nervous system, H335, H336

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word : Danger

Hazard statement(s)

H225 : Highly flammable liquid and vapour.  
H319 : Causes serious eye irritation.  
H335 : May cause respiratory irritation.  
H336 : May cause drowsiness or dizziness.

Precautionary statement(s)

P210 : Keep away from heat/sparks/open flames/hot surfaces. - 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  
P264  
P271  
P280  
P303 + P361 + P353  
  
P304 + P340 + P312

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ eye protection/ face protection.  
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/ attention.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/ container to an approved waste disposal plant.

P305 + P351 + P338

P337 + P313  
P370 + P378

P403 + P233  
P403 + P235  
P405  
P501

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS**  
Repeated exposure may cause skin dryness or cracking.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

Synonyms : Diethyl ketone  
  
Formula : C<sub>5</sub>H<sub>10</sub>O  
Molecular weight : 86.13 g/mol  
CAS-No. : 96-22-0  
EC-No. : 202-490-3  
Index-No. : 606-006-00-5

**Hazardous components**

Component	Classification	Concentration
Diethyl ketone	Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3; H225, H319, H335, H336	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES**

**4.1 Description of 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.

**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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: clear, liquid Colour: colourless
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	6.2 at 50 g/l at 20 °C (68 °F)
e) Melting point/freezing point	Melting point/range: -42 °C (-44 °F) - lit.
f) Initial boiling point and boiling range	101.5 °C (214.7 °F) - lit.
g) Flash point	7 °C (45 °F) - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: 7.7 %(V) Lower explosion limit: 1.6 %(V)
k) Vapour pressure	37.5 hPa (28.1 mmHg) at 20 °C (68 °F)
l) Vapour density	2.97 - (Air = 1.0)
m) Relative density	0.813 g/cm3 at 25 °C (77 °F)
n) Water solubility	slightly soluble
o) Partition coefficient: n-octanol/water	log Pow: 0.85
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

### 9.2 Other safety information

Surface tension	25.33 mN/m at 15 °C (59 °F)
Relative vapour density	2.97 - (Air = 1.0)

## 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

Vapours may form explosive mixture with air.

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Oxidizing agents, Strong bases

## 10.6 Hazardous decomposition products

Other decomposition products - No data available  
In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 2,140 mg/kg

LD50 Dermal - Rabbit - 16,260 mg/kg

No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation - 24 h

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: Moderate eye irritation

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### Reproductive toxicity

No data available

No data available

#### Specific target organ toxicity - single exposure

May cause respiratory irritation.

May cause drowsiness or dizziness.

#### Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

#### Additional information

RTECS: SA8050000

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1,470 - 1,600 mg/l - 96 h

### 12.2 Persistence and degradability

No data available

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