

## SAFETY DATA SHEET

Version 8.0  
Revision Date 01/27/2022  
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Isobornyl acetate

Product Number : 41917  
Brand : Supelco  
CAS-No. : 125-12-2

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

Identified uses : Laboratory chemicals, Synthesis of substances

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

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765  
Fax : +1 800 325-5052

**1.4 Emergency telephone**

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Flammable liquids (Category 4), H227

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

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

Pictogram none

Signal word Warning

Hazard statement(s)  
H227 Combustible liquid.

Precautionary statement(s)  
P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No  
smoking.

P280 Wear protective gloves/ eye protection/ face protection.

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|             |                                                                                      |
|-------------|--------------------------------------------------------------------------------------|
| P370 + P378 | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. |
| P403 + P235 | Store in a well-ventilated place. Keep cool.                                         |
| P501        | Dispose of contents/ container to an approved waste disposal plant.                  |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                                  |
|------------------|--------------------------------------------------|
| Formula          | : C <sub>12</sub> H <sub>20</sub> O <sub>2</sub> |
| Molecular weight | : 196.29 g/mol                                   |
| CAS-No.          | : 125-12-2                                       |
| EC-No.           | : 204-727-6                                      |

No components need to be disclosed according to the applicable regulations.

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

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician 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

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>) Foam Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

## **5.2 Special hazards arising from the substance or mixture**

Carbon oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

## **5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

## **5.4 Further information**

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb® ). Dispose of properly. Clean up affected area.

### **6.4 Reference to other sections**

For disposal see section 13.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### **Hygiene measures**

Change contaminated clothing. Wash hands after working with substance.

For precautions see section 2.2.

### **7.2 Conditions for safe storage, including any incompatibilities**

#### **Storage conditions**

Tightly closed.

Store under argon.

#### **Storage class**

Storage class (TRGS 510): 10: Combustible liquids

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Appropriate engineering controls

Change contaminated clothing. Wash hands after working with substance.

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

##### Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Viton®

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Viton®

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

##### Respiratory protection

Not required; except in case of aerosol formation.

##### Control of environmental exposure

Do not let product enter drains.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |                   |                                  |
|-------------------|----------------------------------|
| a) Appearance     | Form: liquid<br>Color: colorless |
| b) Odor           | pine                             |
| c) Odor Threshold | No data available                |

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|                                                 |                                                                                |
|-------------------------------------------------|--------------------------------------------------------------------------------|
| d) pH                                           | No data available                                                              |
| e) Melting point/freezing point                 | No data available                                                              |
| f) Initial boiling point and boiling range      | 215 °C 419 °F at 1,013 hPa                                                     |
| g) Flash point                                  | 89 °C (192 °F) - closed cup - Regulation (EC) No. 440/2008, Annex, A.9         |
| h) Evaporation rate                             | No data available                                                              |
| i) Flammability (solid, gas)                    | No data available                                                              |
| j) Upper/lower flammability or explosive limits | No data available                                                              |
| k) Vapor pressure                               | 0.13 hPa at 20 °C (68 °F)                                                      |
| l) Vapor density                                | No data available                                                              |
| m) Density                                      | > 0.975 - < 0.985 g/cm <sup>3</sup> at 20 °C (68 °F) - OECD Test Guideline 109 |
| Relative density                                | No data available                                                              |
| n) Water solubility                             | 0.16 g/l at 20 °C (68 °F)                                                      |
| o) Partition coefficient: n-octanol/water       | log Pow: 4.30 - (Lit.), Potential bioaccumulation                              |
| p) Autoignition temperature                     | 440 °C (824 °F) at 1,004 hPa                                                   |
| q) Decomposition temperature                    | No data available                                                              |
| r) Viscosity                                    | ca.4.53 mm <sup>2</sup> /s at 40 °C (104 °F) -                                 |
| s) Explosive properties                         | No data available                                                              |
| t) Oxidizing properties                         | none                                                                           |

## 9.2 Other safety information

|                 |                                                       |
|-----------------|-------------------------------------------------------|
| Surface tension | 30.95 mN/m at 25 °C (77 °F) - OECD Test Guideline 115 |
|-----------------|-------------------------------------------------------|

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Forms explosive mixtures with air on intense heating.  
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Strong heating.

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## 10.5 Incompatible materials

Strong oxidizing agents

## 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - > 10,000 mg/kg

Symptoms: Irritation of mucous membranes, Nausea, Vomiting

Remarks: (IUCLID)

Inhalation: No data available

LD50 Dermal - Rabbit - > 20,000 mg/kg

Remarks: (IUCLID)

#### Skin corrosion/irritation

Skin - Rabbit

Result: irritating - 4 h

(OECD Test Guideline 404)

Remarks: Based on available data, the classification criteria are not met.

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

#### Respiratory or skin sensitization

In vitro study

Result: negative

Remarks: (ECHA)

#### Germ cell mutagenicity

Test Type: Ames test

Test system: *S. typhimurium*

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Mutagenicity (mammal cell test):

Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation

Method: Regulation (EC) No. 440/2008, Annex, B.17

Result: negative

Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Oral

Method: OECD Test Guideline 474

Result: negative

#### Carcinogenicity

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

- NTP: No ingredient 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 on OSHA's list of regulated carcinogens.

**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

**11.2 Additional Information**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption of large quantities:

Headache  
agitation  
Unconsciousness

Damage to:

Kidney

Further data:

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

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**SECTION 12: Ecological information**

**12.1 Toxicity**

|                                                     |                                                                                                            |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                    | static test LC50 - Danio rerio (zebra fish) - 10 - 18 mg/l - 96 h<br>(OECD Test Guideline 203)             |
| Toxicity to daphnia and other aquatic invertebrates | semi-static test EC50 - Daphnia magna (Water flea) - 19.3 mg/l - 48 h<br>(OECD Test Guideline 202)         |
| Toxicity to algae                                   | static test EC50 - Desmodesmus subspicatus (green algae) - > 16.6 mg/l - 72 h<br>(OECD Test Guideline 201) |

**12.2 Persistence and degradability**

|                  |                                                                          |
|------------------|--------------------------------------------------------------------------|
| Biodegradability | aerobic - Exposure time 28 d<br>Result: ca.76 % - Readily biodegradable. |
|------------------|--------------------------------------------------------------------------|

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

### **12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### **12.6 Endocrine disrupting properties**

No data available

### **12.7 Other adverse effects**

Discharge into the environment must be avoided.

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## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## **SECTION 14: Transport information**

#### **DOT (US)**

NA-Number: 1993    Class: NONE    Packing group: III  
Proper shipping name: Combustible liquid, n.o.s. (exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acetate)  
Reportable Quantity (RQ):  
Poison Inhalation Hazard: No

#### **IMDG**

Not dangerous goods

#### **IATA**

Not dangerous goods

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## **SECTION 15: Regulatory information**

#### **SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

#### **SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

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### **SECTION 16: Other information**

#### **Further information**

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 Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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