

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name : 2,6-Dimethyl-4-heptanone  
CAS-No. : 108-83-8

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

Identified uses : Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

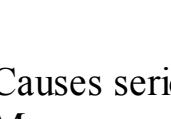
Serious eye damage (Category 1)  
Specific target organ toxicity - single exposure (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Irritating to eyes and respiratory system.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram 

Signal word Danger

Hazard statement(s)  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.

Precautionary statement(s)  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P280 Wear protective gloves/ eye protection/ face protection.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements none

According to European Directive 67/548/EEC as amended.

Hazard symbol(s) 

R-phrases(s)  
R36/37 Irritating to eyes and respiratory system.

S-phrases(s)  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Synonyms : Diisobutyl ketone  
Isovalerone

Formula : C9H18O

| Component                              |            | Classification              | Concentration |
|----------------------------------------|------------|-----------------------------|---------------|
| <b>2,6-Dimethylheptan-4-one</b>        |            |                             |               |
| CAS-No.                                | 108-83-8   | Flam. Liq. 3; STOT SE 3;    | ≥ 55 - ≤ 65 % |
| EC-No.                                 | 203-620-1  | H226, H335                  |               |
|                                        | -          | Xi, R10 - R37               |               |
| <b>3,3,5-Trimethylcyclohexan-1-one</b> |            |                             |               |
| CAS-No.                                | 873-94-9   | Skin Irrit. 2; Eye Dam. 1;  | ≥ 2 - ≤ 5 %   |
| EC-No.                                 | 212-855-9  | STOT SE 3; H315, H318, H335 |               |
|                                        |            | Xi, R37/38 - R41            |               |
| <b>4,6-Dimethylheptan-2-one</b>        |            |                             |               |
| CAS-No.                                | 19549-80-5 | Flam. Liq. 3; H226          | ≥ 25 - ≤ 35 % |
| EC-No.                                 | 243-148-3  | R10                         |               |

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. 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.

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

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).

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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Impervious 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

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

|                                                 |                     |
|-------------------------------------------------|---------------------|
| a) Appearance                                   | Form: liquid        |
| b) Odour                                        | no data available   |
| c) Odour Threshold                              | no data available   |
| d) pH                                           | no data available   |
| e) Melting/freezing point                       | no data available   |
| f) Initial boiling point and boiling range      | 165 - 170 °C - lit. |
| g) Flash point                                  | no data available   |
| 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                             | 0,808 g/mL at 25 °C |
| n) Water solubility                             | no data available   |
| o) Partition coefficient: n-octanol/water       | no data available   |
| p) Autoignition 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

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Strong bases, Strong oxidizing agents, Strong acids, Strong reducing agents

10.6 Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

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.

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

Potential health effects

|            |                                                                     |
|------------|---------------------------------------------------------------------|
| Inhalation | May be harmful if inhaled. May cause respiratory tract irritation.  |
| Ingestion  | May be harmful if swallowed.                                        |
| Skin       | May be harmful if absorbed through skin. May cause skin irritation. |
| Eyes       | May cause eye irritation.                                           |

Signs and Symptoms of Exposure

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

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

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

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN-Number

|               |            |            |
|---------------|------------|------------|
| ADR/RID: 1157 | IMDG: 1157 | IATA: 1157 |
|---------------|------------|------------|

14.2 UN proper shipping name

|                            |
|----------------------------|
| ADR/RID: DIISOBUTYL KETONE |
| IMDG: DIISOBUTYL KETONE    |
| IATA: Diisobutyl ketone    |

14.3 Transport hazard class(es)

|            |         |         |
|------------|---------|---------|
| ADR/RID: 3 | IMDG: 3 | IATA: 3 |
|------------|---------|---------|

14.4 Packaging group

|              |           |           |
|--------------|-----------|-----------|
| ADR/RID: III | IMDG: III | IATA: III |
|--------------|-----------|-----------|

14.5 Environmental hazards

|             |                           |          |
|-------------|---------------------------|----------|
| ADR/RID: no | IMDG Marine pollutant: no | IATA: no |
|-------------|---------------------------|----------|

14.6 Special precautions for users

no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

15.2 Chemical Safety Assessment

no data available

16. OTHER INFORMATION

Text of H-code(s) and R-phrases(s) mentioned in Section 3

|             |                                                  |
|-------------|--------------------------------------------------|
| Eye Dam.    | Serious eye damage                               |
| Flam. Liq.  | Flammable liquids                                |
| H226        | Flammable liquid and vapour.                     |
| H315        | Causes skin irritation.                          |
| H318        | Causes serious eye damage.                       |
| H335        | May cause respiratory irritation.                |
| Skin Irrit. | Skin irritation                                  |
| STOT SE     | Specific target organ toxicity - single exposure |
| Xi          | Irritant                                         |
| R10         | Flammable.                                       |
| R37         | Irritating to respiratory system.                |
| R37/38      | Irritating to respiratory system and skin.       |

R41 Risk of serious damage to eyes.

Further information

For R&D use only. Not for drug, household or other uses.

WARRANTY:

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. Lookchem 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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