

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 14.12.2023

Version number 1

Revision: 14.12.2023

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Diisobutylketone
- **Article number:** 518
- **CAS Number:**  
108-83-8
- **EC number:**  
203-620-1
- **Index number:**  
606-005-00-X
- **Registration number** 01-2119474441-41
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Solvent for various applications
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Möller Chemie GmbH & Co. KG  
Bürgerkamp 1  
D-48565 Steinfurt  
Tel.: 02551/9340-0  
Fax: 02551/9340-60
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
Poison Control Center Mainz - 24 hour emergency service - Tel.: +49 (0) 6131/19240

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS07

STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Warning
- **Hazard statements**  
H226 Flammable liquid and vapour.  
H335 May cause respiratory irritation.
- **Precautionary statements**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

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- P261 *Avoid breathing dust/fume/gas/mist/vapours/spray.*  
 P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*  
 P405 *Store locked up.*  
 P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

### · 2.3 Other hazards

*The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 at levels of 0.1% or more have endocrine disrupting properties.*

### · Results of PBT and vPvB assessment

#### · PBT:

*The product does not contain any substances above legal limits that meet the criteria for PBT (persistent, bioaccumulative and toxic).*

#### · vPvB:

*The product does not contain any substances above legal limits that meet the criteria for vPvB (very persistent and very bioaccumulative).*

## SECTION 3: Composition/information on ingredients

### · 3.1 Substances

#### · CAS No. Description

*108-83-8 Diisobutylketone*

#### · Identification number(s)

*EC number: 203-620-1*

*Index number: 606-005-00-X*

*Specific concentration limits STOT SE 3; H335: C ≥ 10 %*

## SECTION 4: First aid measures

### · 4.1 Description of first aid measures

*After inhalation: Supply fresh air, consult doctor in case of complaints.*

*After skin contact: Immediately wash with water and soap and rinse thoroughly.*

*After eye contact: Rinse opened eye for several minutes under running water.*

*After swallowing: Do not induce vomiting; call for medical help immediately.*

*4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.*

*4.3 Indication of any immediate medical attention and special treatment needed*

*No further relevant information available.*

## SECTION 5: Firefighting measures

### · 5.1 Extinguishing media

*Suitable extinguishing agents: CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.*

*For safety reasons unsuitable extinguishing agents: Water with full jet*

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

*In case of fire, the following can be released:*

*Carbon monoxide*

*carbon dioxide*

### · 5.3 Advice for firefighters

*Protective equipment: Wear self-contained respiratory protective device.*

*Additional information Cool endangered receptacles with water spray.*

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### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Soak up with absorbent material (sand, diatomaceous earth, acid binder, universal binder, sawdust).  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in well closed containers, cool and dry.
- **Information about storage in one common storage facility:** See section 10.5
- **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Keep container tightly sealed.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **DNELs**  
Worker:  
Short-term exposure - systemic effects, inhalation: 290 mg/m<sup>3</sup>  
Long-term exposure - systemic effects, inhalation: 479 mg/m<sup>3</sup>  
Long-term exposure - systemic effects, dermal: 80 mg/kg  
Consumer:  
Short-term exposure - systemic effects, inhalation: 145 mg/m<sup>3</sup>  
Long-term exposure - systemic effects, inhalation: 171 mg/m<sup>3</sup>  
Long-term exposure - systemic effects, dermal: 28.5 mg/kg  
Long-term exposure - systemic effects, oral: 7.14 mg/kg
- **PNECs**  
Water: 0.03 mg/l  
Sediment: 0.46 mg/kg  
Soil: 0.0746 mg/kg
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.

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- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Butyl rubber, BR

Nitrile rubber, NBR

Natural rubber, NR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye/face protection**



Tightly sealed goggles

- **Body protection:** Solvent resistant protective clothing

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Ester-like
· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Boiling point or initial boiling point and boiling range</b>	163-173 °C
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	0.8 Vol %
· <b>Upper:</b>	6.2 Vol %
· <b>Flash point:</b>	47 °C
· <b>Auto-ignition temperature:</b>	345 °C
· <b>Viscosity:</b>	
· <b>Dynamic at 20 °C:</b>	1.05 mPas
· <b>Solubility</b>	
· <b>water at 20 °C:</b>	0.5 g/l
· <b>Vapour pressure at 20 °C:</b>	1.6 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	0.81 g/cm <sup>3</sup>

- **9.2 Other information**

- **Appearance:**

· **Form:** Fluid

- **Important information on protection of health and environment, and on safety.**

· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

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· <b>Molecular weight</b>	142.24 g/mol
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Flammable liquid and vapour.
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**  
The product is stable if the regulations / instructions for storage and handling are observed.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** Avoid all sources of ignition: heat, sparks, open flames.
- **10.5 Incompatible materials:** Strong oxidizing agents
- **10.6 Hazardous decomposition products:**  
No hazardous decomposition products if stored and handled as prescribed/indicated become.

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

#### · LD/LC50 values relevant for classification:

Dermal	LD50	>2.000 mg/kg (rat)
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- **Skin corrosion/irritation** Prolonged or repeated contact may degrease the skin and lead to dermatitis.
- **Serious eye damage/irritation** Low irritation possible - not required for identification.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties** Substance is not listed.

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### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**  
EC50/48 h: 37.2 mg/l (*Daphnia magna*)  
Fish:  
LL/EL/IL50 >10 ≤ 100 mg/l  
Invertebrates:  
LL/EL/IL50 >10 ≤ 100 mg/l  
Algae:  
LL/EL/IL50 >10 ≤ 100 mg/l
- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential** Bioaccumulation possible.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** The product is not considered to be persistent, bioaccumulating nor toxic (PBT).
- **vPvB:** The product is not considered to be persistent or very bioaccumulative (vPvB).
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal according to local regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN number or ID number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>  | UN1157                                      |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>  | 1157 DIISOBUTYL KETONE<br>DIISOBUTYL KETONE |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR</b></li> </ul>  |   |
| <div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul> </div> | 3 (F1) Flammable liquids.<br>3              |

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· **IMDG, IATA**

· **Class** 3 Flammable liquids.  
 · **Label** 3

· **14.4 Packing group**  
 · **ADR, IMDG, IATA** III

· **14.5 Environmental hazards:**  
 · **Marine pollutant:** No

· **14.6 Special precautions for user** Warning: Flammable liquids.  
 · **Hazard identification number (Kemler code):** 30  
 · **EMS Number:** F-E,S-D  
 · **Stowage Category** A

· **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

· **Transport/Additional information:**

· **ADR**  
 · **Limited quantities (LQ)** 5L  
 · **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml  
 · **Transport category** 3  
 · **Tunnel restriction code** D/E

· **IMDG**  
 · **Limited quantities (LQ)** 5L  
 · **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN 1157 DIISOBUTYL KETONE, 3, III

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category P5c flammable liquids**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5.000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50.000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

### SECTION 16: Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS:** Product safety department
- **Contact:** Mrs. Steyer

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**Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*DNEL: Derived No-Effect Level (REACH)*

*PNEC: Predicted No-Effect Concentration (REACH)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Flam. Liq. 3: Flammable liquids – Category 3*

*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

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