

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 25.08.2007

Revision: 25.08.2007

**1 Identification of substance:**

· **Product details:**

· **Trade name:** Dimethyl Sulfoxide

· **Article number:** 9234

· **Application of the substance / the preparation**

Chemicals for synthesis

Laboratory chemicals

· **Manufacturer/Supplier:**

Mallinckrodt Baker B.V

P.O.Box 1

7400 AA Deventer

The Netherlands

· **Informing department:**

Quality Systems & Regulatory Affairs

E-mail : [sjors.duteweert@covidien.com](mailto:sjors.duteweert@covidien.com)

· **Emergency information:**

Environment Health & Safety department

during normal opening times (8 am till 5.30 pm) tel: (+31)(0) 570 687500

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**2 Hazards identification**

· **Hazard designation:**



Xi Irritant

· **Information pertaining to particular dangers for man and environment**

R 36/38 Irritating to eyes and skin.

**3 Composition/information on ingredients**

· **Chemical characterization:**

· **CAS No. Designation:**

67-68-5 Dimethyl Sulfoxide

· **Identification number(s):**

· **EINECS Number:** 200-664-3

**4 First aid measures**

· **After inhalation** In case of unconsciousness bring patient into stable side position for transport.

· **After skin contact** Instantly wash with water and soap and rinse thoroughly.

· **After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

· **After swallowing** In case of persistent symptoms consult doctor.

**5 Fire fighting measures**

· **Suitable extinguishing agents**

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

· **Special hazards caused by the material, its products of combustion or flue gases:**

Sulphur dioxide (SO<sub>2</sub>)

Formation of toxic gases is possible during heating or in case of fire.

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· **Protective equipment:** Wear self-contained breathing apparatus.

**6 Accidental release measures**

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Dilute with plenty of water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**7 Handling and storage**

- **Handling**
- **Information for safe handling:** No special precautions necessary if used correctly.
- **Information about protection against explosions and fires:** no special requirements
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:**  
Store away from oxidizing agents.  
Do not store with other substances.
- **Further information about storage conditions:** Keep container tightly sealed.

**8 Exposure controls and personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with critical values that require monitoring at the workplace:**
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:** Breathing protection recommended.
- **Protection of hands:**  
Protective gloves.  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
Butyl rubber, BR  
Neoprene gloves  
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.

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· **Eye protection:** Tightly sealed safety glasses.

**9 Physical and chemical properties:**

· **General Information**

**Form:** Fluid  
**Colour:** Colourless  
**Smell:** Characteristic

· **Change in condition**

**Melting point/Melting range:** 18.54°C  
**Boiling point/Boiling range:** 189°C  
**Flash point:** 95°C  
**Ignition temperature:** 270°C  
**Danger of explosion:** Product is not explosive.  
**Critical values for explosion:**  
**Lower:** 1.8 Vol %  
**Upper:** Zers. Vol %

**Steam pressure at 20°C:** 2.5 hPa  
**Density at 20°C:** 1.1 g/cm<sup>3</sup>  
**Solubility in / Miscibility with Water:** Fully miscible  
**Segregation coefficient (n-octanol/water):** -2.0 log POW

**Viscosity: dynamic at 25°C:** 198 mPas

**10 Stability and reactivity**

· **Thermal decomposition / conditions to be avoided:** Heat,boiling teperatures.  
· **Materials to be avoided:**  
· **Dangerous reactions** Reacts with oxidizing agents  
· **Dangerous products of composition:**  
Formaldehyde  
Sulphur dioxide

**11 Toxicological information**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	14500 mg/kg (rat)
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· **Primary irritant effect:**

· **on the skin:**  
Irritant  
Irritant for skin and mucous membranes.

· **on the eye:** Irritant effect.

· **Sensitization:** No sensitizing effect known.

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**12 Ecological information:**

**· General notes:**

*Water hazard class (D) 1 (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.*

**13 Disposal considerations**

**· Product:**

**· Recommendation**

*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*

**· Uncleaned packagings:**

**· Recommendation:** *Disposal must be made according to official regulations.*

**· Recommended cleaning agent:** *Water, if necessary with cleaning agent.*

**14 Transport information**

**· Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)** n/a

**· ADR/RID-GGVS/E Class:** -

**· Maritime transport IMDG/GGVSea:**

**· IMDG/GGVSea Class:** -

**· Air transport ICAO-TI and IATA-DGR:**

**· ICAO/IATA Class:** -

**15 Regulatory information**

**· Designation according to EC guidelines:**

*The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)*

**· Code letter and hazard designation of product:**

*Xi Irritant*

**· Risk phrases:**

*36/38 Irritating to eyes and skin.*

**· Safety phrases:**

*26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.*

**16 Other information:**

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**· Department issuing data specification sheet:** *Quality Assurance Department*

**· Contact:** *Sjors duteweert*

**· \* Data compared to the previous version altered.**