

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

Printing date 25.08.2007

Revision: 18.07.2007

1 Identification of substance:

· **Product details:**

· **Trade name:** methanol

· **Article number:**

8045, 9263, 8047, 8404, 8199 MOS, C3041, 9097, 9077, 8402, 8046, 9049, C5160, 5370, KP4063, 9822, 3400, 2685, 9070

· **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

Tel(+31)(0) 570-687500

Fax(+31)(0) 570-687574

E-mail : jtbaker.nl@covidien.com

· **Informing department:**

Quality Systems & Regulatory Affairs

E-mail : 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

2 Hazards identification

· **Hazard designation:**



T Toxic

F Highly flammable

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

R 11 Highly flammable.

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

3 Composition/information on ingredients

· **Chemical characterization:**

· **CAS No. Designation:**

67-56-1 methanol

· **Identification number(s):**

· **EINECS Number:** 200-659-6

· **EC Number:** 603-001-00-X

4 First aid measures

· **General information**

Instantly remove any clothing soiled by the product.

Remove breathing apparatus only after soiled clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness bring patient into stable side position for transport.

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- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**
Induce vomiting and call for medical help.
Do not induce vomiting; instantly call for medical help.

*** 5 Fire fighting measures**

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **Protective equipment:** Put on breathing apparatus.

*** 6 Accidental release measures**

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Prevent material from reaching sewage system, holes and cellars.
Dilute with plenty of water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.

*** 7 Handling and storage**

- **Handling**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Open and handle container with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep breathing equipment ready.
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:**
+ 15°C - +25°C
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.

*** 8 Exposure controls and personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.

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· Components with critical values that require monitoring at the workplace:

67-56-1 methanol

WEL ()	Short-term value: 333 mg/m ³ , 250 ppm
	Long-term value: 266 mg/m ³ , 200 ppm
	Sk

· **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.
- Store protective clothing separately.
- Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

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

· **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· **General Information**

Form:	Liquid
Colour:	Colourless
Smell:	Alcohol-like

· **Change in condition**

Melting point/Melting range:	-98°C
Boiling point/Boiling range:	64.7°C

· Flash point:	11°C
· Ignition temperature:	455°C

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/steam mixtures is possible.

· **Critical values for explosion:**

Lower:	5.5 Vol %
Upper:	44 Vol %

· **Steam pressure at 20°C:** 128 hPa

· **Density at 20°C:** 0.79 g/cm³

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- **Solubility in / Miscibility with**
Water: Fully miscible
- **Segregation coefficient (n-octanol/water):** -0.7 log POW

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Heat, boiling temperatures.
- **Materials to be avoided:**
- **Dangerous reactions** Reacts with oxidizing agents
- **Dangerous products of composition:** No dangerous decomposition products known

11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

Oral	LD50	5628 mg/kg (rat)
	LDLo	143 mg/kg (Human)

- **Primary irritant effect:**
- **on the skin:** redness
- **on the eye:** redness
- **Sensitization:** No sensitizing effect known.

12 Ecological information:

- **Ecotoxic effects:**
- **Aquatic toxicity:**

EC5 / 16h	6600 mg/l (Pseudomonas putida.)
EC5 / 72h	>10000 mg/l (Entosiphon sulcatum)
EC50	31100 mg/l (Chlorella sp.)
EC50/24h	10000 mg/l (daphnia magna)
EC50/48h	>10000 mg/l (daphnia magna)
	18756 mg/l (Protozoa)
IC5 / 8 d	8000 mg/l ((alg) Scenedesmus quadricauda)
LC50/96h	13680 ppm (Trout, rainbow (Salmo gairdnerii))
	28100 mg/l (Fathead minnow (Pimephales promelas))
TLM fishes / 96h:	>1000 mg/l (Pisces)
TLM fishes/48h	8000 mg/l (Salvelinus Sp.)
TLMwaterorganism/24h	10000 mg/l (Artemia Salina)

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

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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)**



- **ADR/RID-GGVS/E Class:** 3 Flammable liquids.
- **Kemler Number:** 336
- **UN-Number:** 1230
- **Packaging group:** II
- **Label** 3+6.1
- **Designation of goods:** 1230 METHANOL
- **Limited quantities (LQ)** LQ0
- **Transport category** 2
- **Tunnel restriction code** D1E

- **Maritime transport IMDG/GGVSea:**



- **IMDG/GGVSea Class:** 3
- **UN Number:** 1230
- **Label** 3+6.1
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Correct technical name:** METHANOL

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



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1230
- **Label** 3+6.1
- **Packaging group:** II
- **Correct technical name:** METHANOL

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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:**

*T Toxic
F Highly flammable*

· **Risk phrases:**

*11 Highly flammable.
23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.*

· **Safety phrases:**

*4 Keep away from living quarters.
7/9 Keep container tightly closed and in a well-ventilated place.
16 Keep away from sources of ignition - No smoking.
20 When using do not eat or drink.
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
60 This material and its container must be disposed of as hazardous waste.*

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.**