

**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:** Acetic Acid, 99-100%

· **Article number:** 9515

· **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:**



C Corrosive

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

R 10 Flammable.

R 35 Causes severe burns.

**3 Composition/information on ingredients**

· **Chemical characterization:**

· **CAS No. Designation:**

64-19-7 Acetic Acid, 99-100%

· **Identification number(s):**

· **EINECS Number:** 200-580-7

· **EC Number:** 607-002-00-6

**4 First aid measures**

· **General information** Instantly remove any clothing soiled by the product.

· **After inhalation**

Take affected persons into the open air and position comfortably

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

· **After skin contact**

If skin irritation continues, consult a doctor.

Instantly wash with water and soap and rinse thoroughly.

· **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

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· **After swallowing** Drink copious amounts of water and provide fresh air. Instantly call for doctor.

**5 Fire fighting measures**

- **Suitable extinguishing agents**  
CO2, 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:**  
Gives off flammable vapors. Vapors may form explosive mixture with air.  
Closed containers exposed to heat may explode.  
Contact with strong oxidizers may cause fire or explosion.  
Combustion products:  
acetic acid, carbon monoxide, carbon dioxide.
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

**6 Accidental release measures**

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **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).  
Use neutralizing agent.  
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.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage**
- **Requirements to be met by storerooms and containers:**  
Do not use light alloy containers.  
Store in a cool, dry, well ventilated, flammable liquid storage area or cabinet.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:**  
>17 - <25°C  
Keep container tightly sealed.  
Incompatibles: strong oxidizing agents.  
chromic acid, nitric acid, hydrogen peroxide,  
alkalies, carbonates, strong bases, amines,  
sulfuric acid.

**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:**
- **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:**  
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**  
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.
- **Eye protection:** Tightly sealed safety glasses.
- **Body protection:** Protective work clothing.

**9 Physical and chemical properties:**

· <b>General Information</b>	
Form:	Fluid
Colour:	Colourless
Smell:	Pungent
· <b>Change in condition</b>	
Melting point/Melting range:	16.6°C
Boiling point/Boiling range:	118°C
Flash point:	40°C
· <b>Inflammability (solid, gaseous)</b>	
Ignition temperature:	n.a.
Danger of explosion:	485°C
· <b>Critical values for explosion:</b>	
Lower:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.
Upper:	4 Vol %
	17 Vol %
· <b>Steam pressure at 20°C:</b>	
	15.4 hPa
· <b>Density at 20°C</b>	
	1.05 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with</b>	
Water:	Fully miscible
· <b>pH-value (10 g/l) at 20°C:</b>	
	2.5
· <b>Segregation coefficient (n-octanol/water):</b> -0.2 log POW	

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· **Viscosity:**  
**dynamic at 25°C:** 1.53 mPas

**10 Stability and reactivity**

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

**11 Toxicological information**

· **Acute toxicity:**

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

Oral	LD50	3310 mg/kg (rat)
Dermal	LD50	1060 mg/kg (rabbit)

· **Primary irritant effect:**

- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.

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

· **Other information (about experimental toxicology):**

There are no reports of cumulative toxicity.  
No teratogenic effects were reported in rabbits.

· **Additional toxicological information:**

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

**12 Ecological information:**

- **Behaviour in environmental systems:**
- **Mobility and bioaccumulation potential:** n.a.
- **Ecotoxic effects:**

· **Acquatic toxicity:**

EC50/24h	47 mg/l (daphnia magna)
LC50/96h	75 mg/l (Bluegill Sunfish ( <i>Lepomis Macrochirus</i> ))
	88 mg/l (Fathead minnow ( <i>Pimephales promelas</i> ))

· **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.  
Must not reach sewage water or drainage ditch undiluted or unneutralized.

**13 Disposal considerations**

· **Product:**

· **Recommendation**

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

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- **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:** 8 Corrosive substances.
- **Kemler Number:** 80
- **UN-Number:** 2789
- **Packaging group:** II
- **Label:** 8+3
- **Designation of goods:** 2789 ACETIC ACID, GLACIAL
- **Limited quantities (LQ):** LQ22
- **Transport category:** 2
- **Tunnel restriction code:** E

· **Maritime transport IMDG/GGVSea:**



- **IMDG/GGVSea Class:** 8
- **UN Number:** 2789
- **Label:** 8+3
- **Packaging group:** II
- **EMS Number:** F-E,S-C
- **Correct technical name:** ACETIC ACID, GLACIAL

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



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2789
- **Label:** 8+3
- **Packaging group:** II
- **Correct technical name:** ACETIC ACID, GLACIAL

**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)

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

C Corrosive

· **Risk phrases:**

10 Flammable.

35 Causes severe burns.

· **Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

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

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**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.**