

**GLYOXAL (40% solution)****1162**  
May 2003CAS No: 107-22-2  
RTECS No: MD2700000  
EC No: 605-016-00-71,2-Ethanedione  
Biformyl  
Ethanedial  
Oxalaldehyde  
C<sub>2</sub>H<sub>2</sub>O<sub>2</sub> / OHCCHO  
Molecular mass: 58.0

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Combustible.	NO open flames.	Carbon dioxide, foam, powder.
<b>EXPLOSION</b>			

EXPOSURE		AVOID ALL CONTACT!	
<b>Inhalation</b>		Local exhaust or breathing protection.	Fresh air, rest.
<b>Skin</b>	Redness.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
<b>Eyes</b>	Redness. Pain.	Safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Abdominal pain. Nausea. Vomiting.	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Collect leaking and spilled liquid in sealable containers as far as possible. Use face shield. Personal protection: filter respirator for organic gases and vapours.	Xn Symbol R: 20-36/38-43-68 S: (2-)36/37 Note: B

EMERGENCY RESPONSE	SAFE STORAGE
	Well closed.

## IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS TO PALE YELLOW LIQUID

**Chemical dangers**

The solution in water is a weak acid.

**Occupational exposure limits**

TLV: (inhalable aerosol and vapor) 0.1 mg/m<sup>3</sup> as TWA; A4 (not classifiable as a human carcinogen); SEN; (ACGIH 2003).  
 MAK: skin absorption (H); sensitization of skin (Sh); Carcinogen category: 3B; (DFG 2004).

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its vapour or by inhalation of its aerosol, and by ingestion.

**Inhalation risk**

A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20/C.

**Effects of short-term exposure**

The substance is irritating to the eyes and the skin.

**Effects of long-term or repeated exposure**

Repeated or prolonged contact may cause skin sensitization.

## PHYSICAL PROPERTIES

Boiling point: 104/C

Melting point: -14/C

Relative density (water = 1): 1.27

Vapour pressure, kPa at 20/C: 2.4

Relative vapour density (air = 1): 1.27

Flash point: &gt;100/C

Auto-ignition temperature: 285/C

Octanol/water partition coefficient as log Pow: -0.85

## ENVIRONMENTAL DATA

## NOTES

The substance is also commercially available as a crystalline dihydrate (80% glyoxal).

Do NOT take working clothes home.

Card has been partly updated in April 2005. See section Occupational Exposure Limits.

## ADDITIONAL INFORMATION

## LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible