

# MATERIAL SAFETY DATA SHEET

## Chemical Product

Product Name: GLYOXAL

40%

CAS#: 107-22-2

Synonym:

Not Available.

Chemical Name: Glyoxal 40%

Chemical Formula: Not Available.

## Composition and Information on Ingredients

Name	S.K.U	% by Weight
GLYOXAL 40%	GCS-7684	100

## Hazards Identification

### Potential Acute Health Effects:

Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Noncorrosive for skin. Non-sensitizer for skin. Non-permeator by skin.

### Potential Chronic Health Effects:

Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Noncorrosive for skin. Non-sensitizer for skin. Non-permeator by skin. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, the nervous system. Repeated or prolonged exposure to the substance can produce target organs damage.

## First Aid Measures

### Eye Contact:

Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.

### Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.  
Wash contaminated clothing before reusing.

**Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

**Inhalation:**

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation: Not Available.

**Ingestion:**

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:**

**Fire and Explosion Data**

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

**Products of Combustion:**

These products are carbon oxides (CO, CO<sub>2</sub>).

**Fire Hazards in Presence of Various Substances:**

Extremely flammable in presence of open flames and sparks, of heat.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact:  
Not available. Extremely explosive in presence of open flames and sparks, of heat.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

**Accidental Release Measures**

**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

**Handling and Storage****Precautions:**

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment if ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

**Storage:**

Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

**Exposure Controls/Personal Protection****Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:**

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

**Physical and Chemical Properties****Physical state and appearance: Liquid.**

Odor : Not available.

Taste : Not available.

Molecular Weight	: Not applicable.
Color	: Not available.
pH (1% soln/water)	: Neutral.
Boiling Point: The lowest known value is 51°C (123.8°F) (Glyoxal). Weighted average:	
80.4°C (176.7°F)	
Melting Point	: May start to solidify at 15°C (59°F) based on data for: Glyoxal.
Critical Temperature	: Not available.
Specific Gravity	: Weighted average: 1.05 (Water = 1)
Vapor Pressure	: The highest known value is 17.535 mm of Hg (@ 20°C) (Water).
Vapor Density	: The highest known value is 0.62 (Air = 1) (Water).
Volatility	: Not available.
Odor Threshold	
: Not available.	
Water/Oil Dist. Coeff.	
: Not available.	
Ionicity (in Water)	
: Not available.	
Dispersion Properties	
: See solubility in water.	
Solubility	: Easily soluble in cold water.

## Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Non-corrosive in presence of glass.

### Special Remarks on Reactivity:

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

## Toxicological Information

### Routes of Entry:

Absorbed through skin. Dermal contact. Eye contact. Inhalation.

### Toxicity to Animals:

Acute oral toxicity (LD50): 1100 mg/kg [Rat]. Acute dermal toxicity (LD50): 6600 mg/kg [Guinea pig].

Chronic Effects on Humans: The substance is toxic to lungs, the nervous system.

### Other Toxic Effects on Humans:

Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of inhalation. Non-corrosive for skin. Non sensitizer for skin. Non-permeator by skin.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Toxicological Data on Ingredients: Glyoxal: ORAL (LD50): Acute: 1100 mg/kg [Rat]. DERMAL(LD50): Acute: 6600 mg/kg [Guinea pig].

## Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

### Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

### Toxicity of the Products of Biodegradation:

The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

## Disposal Considerations

Waste Disposal:

## Transformation Information

Land transport (ADR-RID)

General information: Not regulated.

Sea transport (IMDG) [English only]

General information: Not regulated.

Air transport (ICAO-IATA) [English only]

General information: Not regulated.

## Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Glyoxal; Water

### Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

### Other Classifications:

WHMIS (Canada): CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC): R22- Harmful if swallowed. R36/38- Irritating to eyes and skin.

### HMIS (U.S.A.):

Health Hazard: 2

### Fire Hazard: 1

Reactivity: 0

### Personal Protection: E

National Fire Protection Association (U.S.A.):

### Health: 2

Flammability: 1

### Reactivity: 0

Specific hazard:

### Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

## Additional Information



References: Not available.

Other Special Considerations: Not available.

## ***Disclaimer:***

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