

**MATERIAL SAFETY DATA SHEET****Glyoxal 40 L**

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Substance key: 000000060871  
Version : 1 - 2 / USARevision Date: 06/30/2006  
Date of printing :01/26/2007**Section 01 - Product Information**

<b>Identification of the company:</b>	Clariant Corporation Clariant Glyoxal - Resale 5002 NE 54th Place Gainesville, FL, 32609 Telephone No.: +1 352-376-8246
	<b>Information of the substance/preparation:</b> Product Safety 1-704-331-7710
	<b>Emergency tel. number:</b> +1 800-424-9300 CHEMTREC

**Trade name:** Glyoxal 40 L  
**Material number:** 173930  
**Primary product use:** Raw material for the production of textile and paper auxiliaries  
**Primary product use:** Intermediate product  
**Chemical family:** Glyoxal in aqueous solution

**Section 02 - Composition information on hazardous ingredients****Hazardous ingredients:**

Component	CAS-no. (Trade secret no.)	Concentration
Glyoxal	107-22-2	40 %

**Section 03 - Hazards identification****Expected Route of entry:**

**Inhalation:** no  
**Skin contact:** yes  
**Eye contact:** yes  
**Ingestion:** no  
**Skin absorption:** no

**Health effects of exposure:**

Glyoxal ( 107-22-2 )  
Based on animal studies, Glyoxal causes severe eye and moderate skin irritation. Glyoxal was not fatal to rats, exposed to saturated air for 8 hours. Glyoxal exhibited the potential to cause skin sensitization in guinea pigs under certain conditions. Repeated skin contact with Glyoxal solutions may produce allergic reactions. Pure Glyoxal has been found to be a mutagen invitro and invivo.

**Known effects on other illnesses:** Pre-existing skin and eye disorders may be aggravated by exposure to this product.

**Listed carcinogen:** IARC: No

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OSHA: No  
Other: No**HMIS:**

Health: 2

Flammability: 1

Reactivity: 0

Personal protection: D

**Section 04 - First aid measures****After inhalation:**

Remove subject to fresh air. Seek medical aid if lung irritation persists or if breathing becomes difficult.

**After contact with skin:**

Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

**After contact with eyes:**

Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

**After ingestion:**

If conscious, give the patient 1-2 glasses of water (8-16 oz.) and call a doctor. Never give anything by mouth to an unconscious person. Induce vomiting only at the instructions of a doctor or nurse.

**Advice to doctor / Treatment:**

None known.

**Section 05 - Fire fighting measures****Flashpoint:**

Method: NFT 60103 (closed cup)  
Not applicable

**Extinguishing media:**

Product itself is non-combustible; Fire extinguishing method of surrounding areas must be discussed.

**Special fire fighting procedure:**

Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.

**Unusual fire and explosion hazards:**

Emits toxic and corrosive fumes under fire conditions.

**Section 06 - Accidental release measures****Steps to be taken in case of spill or leak:**

Contain spill. All spills should be collected as liquid or absorbed on a suitable absorbant. Clean up should be accomplished by removal of contaminated soil or scrubbed with soap and water and cleaning wastes removed with absorbant materials. Wear proper protective equipment.

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Store in a cool, dry, dark location. Keep containers closed when not in use. Avoid all contact with skin and eyes. Avoid breathing dust or vapor. Wear proper protective equipment.

**Further info on storage conditions:**

Store in original container.

**Section 08 - Exposure controls / personal protection****Occupational exposure limits:**

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
GLYOXAL, INHALABLE AEROSOL AND/OR VAPOR	107-22-2	US WEEL Guides Data	Time Weighted Average (TWA):	0.042 ppm	0.1 mg/m3
GLYOXAL, INHALABLE FRACTION AND VAPOR	107-22-2	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.1 mg/m3
GLYOXAL, INHALABLE FRACTION AND VAPOR	107-22-2	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.1 mg/m3

**Respiratory protection:**

If airborne concentrations pose a health hazard, become irritating, or exceed recommended limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements under 29 CFR 1910.134.

**Hand protection:**

Rubber Or Plastic.

**Eye protection:**

Chemical splash goggles.

**Other protective equipment:**

Wear as needed: Hard hat with brim, rubber apron, rubber safety shoes or rubber boots over leather shoes, protective clothing to prevent skin contact

**Advice on system design:**

Good general ventilation should be provided to keep vapor concentrations below the recommended exposure limit.

**Section 09 - Physical and chemical properties**

<b>Form:</b>	Liquid
<b>Color:</b>	colourless to slightly yellow
<b>Odor:</b>	weak
<b>pH:</b>	approx. 2 Determined in the undiluted form
<b>Solubility in water:</b>	completely soluble
<b>Density:</b>	approx. 1.27 g/cm <sup>3</sup> (20 °C) Method: DIN 51757
<b>Solidifying Point :</b>	< 14 °F

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**Boiling point :** approx. 219 °F ( 1,013 mbar)  
**Partitioning coef. octanol/water:** -3.88  
Method: Calculation Hansch/Leo

**Section 10 - Stability and reactivity**

**Chemical stability:** Stable.  
**Hazardous Polymerization:** Will not occur.  
Conditions to avoid: None known.  
**Conditions to avoid:** Acids, alkalis, strong oxidizing agents

**Section 11 - Toxicological information****Product information:**

**Acute oral toxicity:** LD50 > 2,000 mg/kg (rat)  
Method: OECD 401  
**Acute inhalation toxicity:** LC50 2.44 mg/l (4 h, Rats (Male/Female) )  
Method: OECD 403  
**Acute dermal toxicity:** LD50 > 2,000 mg/kg (rat)  
Method: OECD  
**Skin irritation:** Moderate irritant (rabbit)  
**Eye irritation:** Moderate irritant (rabbit)  
**Sensitization:** sensitizing (Guinea pig)  
Method: OECD 406

**Other relevant toxicity information:**

The product is a Muta Cat. 3 substance

**Section 12 - Ecological information****Product information:**

**Biodegradation:** > 80 % (28 d)  
good degradability  
Method: OECD 302 B  
**Fish toxicity:** LC50 760 mg/l (48 h, Brachydanio rerio)  
**Daphnia toxicity:** EC50 430 mg/l (24 h, Daphnia magna)  
**Algae toxicity:** EC50 > 250 mg/l (72 h, Scenedesmus subspicatus)  
Method: OECD 201  
**Bacteria toxicity:** EC50 134 mg/l (16 h, Pseudomonas putida)  
Method: DIN 38412 T.8  
**Dissolved organic carbon (DOC):** 176.8 mg/g

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Chemical oxygen demand      342 mg/g  
(COD):

## Section 13 - Disposal considerations

### Waste disposal information:

Disposal of waste product may be subject to federal, state, and local regulations. Refer to part 261 of 40 CFR for the applicability of federal regulations. Disposal of this material must be in a manner compliant with all federal, state and local regulations.

### RCRA hazardous waste:

No -- Not as sold.

## Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

## Section 15 - Regulatory information

### TSCA Status:

All components of this product are listed on the TSCA Inventory.

### SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

### SARA 313 information:

This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

### Clean Water Act:

Contains no known priority pollutants at concentrations greater than 0.1%.

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**Section 16 - Other information****Other precautions:**

Contact lenses should not be worn when working with this material.

**Label information:****WARNING!**

**CAUSES SKIN AND EYE IRRITATION** Prolonged contact may cause an allergic reaction.

Avoid contact with product. Avoid breathing dust, fumes, or vapor. Wear proper protective equipment. Use with adequate ventilation or respiratory protection. Wash thoroughly after handling. Keep away from heat and flame. Keep container closed when not in use.

Eye contact: flush with water for at least 15 minutes while holding eyelids open. Seek immediate medical attention. Skin contact: flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Seek medical attention. Wash clothing before reuse. Ingestion: if conscious, give the patient 1-2 glasses of water (8-16 oz.) Seek medical attention. Never give anything by mouth to an unconscious person. Induce vomiting only at the instructions of a doctor or nurse. Inhalation: remove subject to fresh air. Seek medical assistance.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.