

**SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION-----**

**Product Name** Glutaraldehyde, 50% solution  
**Product Code(s)** G0875  
**Recommended Use** For Laboratory Research Use Only  
 Not for Human or Animal Drug Use

**SECTION 2. ----- HAZARDS IDENTIFICATION -----**

**Emergency Overview**

**Target Organs**

Central nervous system, Heart


**WHMIS Classification**

D1A	Very Toxic Material Causing Immediate and Serious Toxic Effects	Highly toxic by inhalation
D1B	Toxic Material Causing Immediate and Serious Toxic Effects	Toxic by ingestion
D2A	Very Toxic Material Causing Other Toxic Effects	Respiratory sensitiser
D2B	Toxic Material Causing Other Toxic Effects	Moderate eye irritant
E	Corrosive Material	Skin sensitiser Corrosive to skin

**GHS Classification**

Acute toxicity, Oral (Category 4)  
 Acute Toxicity – Dermal (Category 4)  
 Acute toxicity, Inhalation (Category 3)  
 Skin corrosion (Category 1B)  
 Serious eye damage (Category 1)  
 Respiratory sensitisation (Category 1)  
 Skin sensitisation (Category 1)

**GHS Label elements, including precautionary statements**

**Pictogram** 

**Signal word** Danger

**Hazard statement(s)**  
 H302 Harmful if swallowed  
 H312 Harmful in contact with skin

H331 Toxic if inhaled  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/  
P264 spray. Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P284 Wear respiratory protection.  
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.

**HMIS Classification**

Health hazard: 4  
Chronic Health Hazard: \*  
Flammability: 0  
Physical hazards: 1

**Potential Health Effects**

**Inhalation** May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. Causes skin burns. Causes skin irritation.  
**Eyes** Causes eye burns. Causes eye irritation.  
**Ingestion** Toxic if swallowed.

**SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----**

Chemical Name	EC No.	CAS-No	Weight %
Glutaraldehyde, 50% solution	203-856-5	111-30-8	50
Water	231-791-2	7732-18-5	50

**SECTION 4. ----- FIRST-AID MEASURES -----**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**SECTION 5. ----- FIRE FIGHTING MEASURES -----**

**Conditions of flammability**

Not flammable or combustible.

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Hazardous combustion products**

**Explosion data - sensitivity to mechanical impact**

No data available

**Explosion data - sensitivity to static discharge**

No data available

**SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----**

**Personal precautions**

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**SECTION 7. ----- HANDLING AND STORAGE-----**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas.

**SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----**

Components	CAS-No.	Value	Control parameters	Basis
Glutaral	111-30-8	CEV	0.050000 ppm	Canada. Ontario OELs
		C	0.100000 ppm 0.410000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
Remarks	A substance which may not be recirculated in accordance with section 108 Sensitizer			
		(c)	0.050000 ppm 0.200000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		C	0.050000 ppm	Canada. British Columbia OEL
	Sensitizer: sensitization critical effect			
		C	0.050000 ppm	Canada. British Columbia OEL
	Sensitizer: sensitization critical effect			
		C	0.050000 ppm	Canada. British Columbia OEL
	Sensitizer: sensitization critical effect			
		C	0.050000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		C	0.05 ppm	USA. ACGIH Threshold Limit Values (TLV)

## Personal protective equipment

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

### Appearance

Form	liquid, clear
Colour	colourless

### Safety data

pH	No data available
Melting point/freezing point	-21 °C (-6 °F)
Boiling point	101 °C (214 °F) at 1,013 hPa (760 mmHg)
Flash point	No data available
Ignition temperature	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	20 hPa (15 mmHg) at 20 °C (68 °F)
Density	1.106 g/mL at 25 °C (77 °F)
Water solubility	soluble
Partition coefficient: n-octanol/water	No data available
Relative vapour density	3.46 - (Air = 1.0)
Odour	No data available
Odour Threshold	No data available
Evaporation rate	No data available

## SECTION 10. ----- STABILITY AND REACTIVITY -----

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available

### Conditions to avoid

No data available

### Materials to avoid

Strong acids, Strong bases, Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides  
Other decomposition products - No data available

## SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

### Acute toxicity

No data available

**Inhalation LC50**

No data available

**Dermal LD50**

No data available

**Other information on acute toxicity**

No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

Eyes: No data available

**Respiratory or skin sensitisation**

May cause allergic respiratory reaction.

May cause allergic skin reaction.

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available

**Teratogenicity**

No data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

No data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

No data available

**Aspiration hazard**

No data available

**Potential health effects**

<b>Inhalation</b> membranes	Toxic if inhaled. Material is extremely destructive to the tissue of the mucous and upper respiratory tract. Causes respiratory tract irritation.
<b>Ingestion</b>	Toxic if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin burns. Causes skin irritation.
<b>Eyes</b>	Causes eye burns. Causes eye irritation.

**Signs and Symptoms of Exposure**

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting

**Synergistic effects**

No data available

**Additional Information**

RTECS: Not available

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil** no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

Very toxic to aquatic life.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

**DOT (US)**

UN number: 3265 Class: 8

Packing group: II

Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINING GLUTARALDEHYDE SOLUTION)

**IATA**

UN number: 3265 Class: 8

Packing group: II

Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINING GLUTARALDEHYDE SOLUTION)

**SECTION 15. ----- REGULATORY INFORMATION -----**

**WHMIS Classification**

D1A	Very Toxic Material Causing Immediate and Serious Toxic Effects	Highly toxic by inhalation
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D2B	Toxic Material Causing Other Toxic Effects	Moderate eye irritant
E	Corrosive Material	Skin sensitiser Corrosive to skin

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

**SECTION 16. ----- OTHER INFORMATION -----**

**Issuing Date** 13-Aug-2009

**Revision Date** 13-Nov-2017

**Recommended Restrictions**      No information available

**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of SDS**