MATERIAL SAFETY DATA SHEET

Product Name: Glutaraldehyde (70%)
Catalog Number(s): 20100 through 20150
Chemical Name and Synonyms: 1,5-Pentanedial, Glutaral, Glutaric Dialdehyde
Proper DOT Shipping Name: Corrosive Liquid, acidic, organic, N.O.S. (contains glutaraldehyde)
DOT Hazard Class: 8 (Corrosive)
UN ID Number: UN 3265
MSDS Prepared: 9/2011

Distributed By: Ladd Research Industries
83 Holly Court
Williston, VT 05495
Tel: (802) 658-4961

HAZARDOUS COMPONENTS

	CAS Number	*Percent*	*Exposure Limits*
Glutaraldehyde	111-30-8	70%	0.2 ppm (OSHA PEL)

PHYSICAL DATA

Boiling Point: 368-372° F @ 760 mm Hg
Freezing Point: Not established
Specific Gravity: 1.18
Vapor Pressure: 17 mm Hg @ 20° C
Vapor Density: 1 (air = 1)
Solubility in Water: Soluble
Evaporation Rate: As water (Butyl acetate = 1)
Appearance and Odor: Colorless to slightly yellow clear liquid. Sharp odor.
Percent Volatiles by Volume: 30%

FIRE AND EXPLOSION HAZARD DATA

Flash Point: None, Tag Closed Cup (ASTM D56)
Flammable Limits: Not determined (aqueous system)
Extinguishing Media: Non-flammable. After the water evaporates, the remaining material will burn. Use alcohol-type or all-purpose-type foam applied by manufacturer's recommended technique for large fires. Use CO_2 or dry chemical media for small fires.
Special Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing.

HEALTH HAZARD DATA

Ingestion: Moderately toxic. May cause moderate to marked irritation and possible chemical burns of the mouth, throat, esophagus and stomach. There will be discomfort or pain in the chest and abdomen, nausea, vomiting, diarrhea, dizziness, faintness, drowsiness, thirst, weakness, circulatory shock, collapse and coma.
Skin Absorption: Prolonged or widespread contact could result in the absorption of potentially harmful amounts of material.
Inhalation: Vapor is irritating to the respiratory tract, causing stinging sensations in the nose and throat, discharge from the nose, possible bleeding from the nose, coughing, chest discomfort and tightness, difficulty with breathing and headache.
Skin Contact: Brief contact will cause itching with mild to moderate local redness and possibly swelling. Prolonged contact may result in pain, severe redness and swelling, with ulceration, tissue destruction and possible bleeding into the inflamed area.
Eye Contact: Liquid will cause severe and persistent conjunctivitis, seen as excess redness and marked swelling of the conjunctiva with profuse discharge. Severe corneal injury may develop, which could permanently impair vision if prompt first aid and medical treatment are not obtained. Vapor will cause stinging sensations in the eye with excess tear production, blinking and possibly a slight excess redness of the conjunctiva.

Medical Conditions Aggravated by Overexposure: May aggravate an existing dermatitis.
Other Effects of Overexposure: May cause skin sensitization in a small proportion of individuals and present as an allergic contact dermatitis. This usually results from contact with the liquid, but occasionally there may be a reaction to glutaraldehyde vapor.

EMERGENCY AND FIRST AID
Ingestion: DO NOT INDUCE VOMITING. Do not give anything to drink. Urgently obtain medical advice.
Skin: Wash contaminated skin with soap and water. Contaminated clothing should be washed before reuse.
Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If symptoms persist, call a physician.
Eyes: Immediately flush with water and continue washing for at least 15 minutes. Obtain the advice of an ophthalmologist.

REACTIVITY DATA
Stability: Stable
Conditions to Avoid: Avoid high temperatures.
Incompatibility (Materials to Avoid): Avoid contamination with acids and alkalies.
Hazardous Decomposition Products: Burning can produce carbon monoxide and/or carbon dioxide.
Conditions to Avoid: Avoid removal of water and contamination with acids and alkalies.

SPILL, LEAK AND DISPOSAL INFORMATION
Release/Spill: Wear suitable protective equipment. Toxic to fish; avoid discharge to natural waters. Very low concentrations can be degraded in a biological treatment system Thus, small spills can be flushed with large quantities of water.
Disposal: Atomize into a very hot incinerator or mix with a suitable flammable solvent, and incinerate where permitted under appropriate federal, state and local regulations. High water content may dampen flame.

PROTECTIVE EQUIPMENT AND CONTROL MEASURES
Respiratory: Use self-contained breathing apparatus in high vapor concentrations. Use OSHA/MSHA-approved cartridge for organic vapor at lower concentrations.
Ventilation: This product should be handled in covered equipment, in which case, general (mechanical) room ventilation is expected to be satisfactory. If vapors are strong enough to be irritating to the nose (or eyes), the exposure limit is probably being exceeded and special ventilation may be required.
Protective Gloves: Surgical latex, polyethylene, butyl or nitrile gloves recommended.
Eye Protection: Wear vapor-proof goggles or face shield.

SECTION 313 SUPPLIER NOTIFICATION
Not applicable.

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