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MATERIAL SAFETY DATA SHEET CATALOG #1057
GLUTARALDEHYDE, 25% AQUEOUS*

PRODUCT INFORMATION

TRADE/CHEMICAL NAME: Glutaraldehyde
COMPONENT NAME: Glutaraldehyde
CHEMICAL FAMILY: Aldehydes
CAS NUMBER: 111-30-8
MOLECULAR WEIGHT: 100.12

HAZARDS IDENTIFICATION

INHALATION: Vapor is irritating to the respiratory tract causing stinging sensations in the nose and throat, coughing, chest discomfort and tightness, difficulty with breathing, and headache.
SKIN CONTACT: Brief contact will cause local reddening and swelling. Prolonged contact may result in severe inflammation and possibly skin burns.
SKIN ABSORPTION: Toxicology studies indicate that prolonged or widespread contact could result in the absorption of potentially harmful amounts of material.
EYE CONTACT: Liquid will cause severe conjunctivitis and marked corneal injury. Vapor may cause stinging sensations in the eye and excess lachrymation but not injury.
INGESTION: May cause moderate to severe irritation or burns of the mouth, throat, esophagus, and stomach, with abdominal and chest discomfort or pain, nausea, vomiting, diarrhea, dizziness, faintness, weakness, circulatory shock, and collapse.
EFFECTS OF REPEATED OVEREXPOSURE: May cause skin sensitization in a small proportion of individuals, and presents a typical allergic contact dermatitis.
OTHER HEALTH HAZARDS: Laboratory studies have shown glutaraldehyde is not teratogenic, and in vitro studies have shown an absence of mutagenic effects.

FIRST AID MEASURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
SKIN EXPOSURE: Remove contaminated clothing and shoes. Immediately wash exposed area with large quantities of mild soap and water. Get medical attention.
EYE EXPOSURE: Immediately flush eyes with plenty of water for at least 15-20 minutes, holding eyelids apart. Get medical attention immediately.
INGESTION: Give at least two glasses of water. Do not induce vomiting. Call physician immediately.
NOTES TO PHYSICIAN: Due to the potential for organ perforation, careful gastric lavage is necessary. There is no specific antidote, and treatment is dictated by the symptoms and the clinical condition of the patient.

FIRE FIGHTING MEASURES

FLASH POINT : None.
EXTINGUISHING MEDIA: If water is evaporated, material can burn. Use CO_2 or dry chemical powder for small fires. Use foam (alcohol, polymer, or ordinary) or water fog for large fires.
SPECIAL FIREFIGHTING PROCEDURES: Wear OSHA/MSHA approved self-contained breathing apparatus and protective clothing.
UNUSUAL FIRE & EXPLOSION HAZARDS: None.

ACCIDENTAL RELEASE MEASURES

GENERAL: Wear suitable protective equipment. Toxic to fish; avoid discharge to natural waters. VERY LOW concentrations (10 ppm or less) can be degraded in a biological treatment system. Thus, SMALL spills can be flushed with LARGE quantities of water. Large spills can be harmful to a treatment system. Thus, LARGE spills should be collected for disposal. It may also be possible to decontaminate spilled material by careful application of ammonium hydroxide or sodium bisulfate solution.

HANDLING AND STORAGE

HANDLING: Pre-plan handling and emergency response procedures prior to use. Protect containers from physical damage and regularly inspect them for cracks, leaks, or faulty valves. Wear appropriate OSHA/MSHA approved respirator when dealing with high concentrations, chemical resistant gloves, safety goggles, and other protective clothing. A safety shower and eye bath should be accessible. This product should be handled in covered equipment in which case general (mechanical) room ventilation is adequate. Local ventilation is needed at points where vapors can be expected to escape to the air.
STORAGE: Store in a cool, dry place. Keep container closed when not in use.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear liquid
ODOR:	Sharp odor
BOILING POINT:	100.5° C
SPECIFIC GRAVITY:	1.066 @ 20/20° C
VAPOR DENSITY (relative to air):	3.5
VAPOR PRESSURE (mm Hg):	15.0
SOLUBILITY IN WATER (% weight):	100 @ 20° C
FREEZING POINT:	-10° C
PERCENT VOLATILES BY VOLUME:	75
EVAPORATION RATE:	0.88

WASTE DISPOSAL

WASTE DISPOSAL: Atomize into a very hot incinerator fire, or mix with a suitable flammable solvent, and incinerate where permitted under appropriate federal, state, and local laws. High water content may dampen flame.

STABILITY AND REACTIVITY

STABLE: Yes
HAZARDOUS POLYMERIZATION: Not prone to hazardous polymerization.
INCOMPATIBILITY: Alkalies catalyze an aldol-type condensation.
CONDITIONS TO AVOID: Avoid high temperature (removal of water, 200° F)
HAZARDOUS DECOMPOSITION PRODUCTS: Burning can produce Carbon monoxide and/or Carbon dioxide.

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. **tousimis**® SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.

* **IMPORTANT NOTE:** This MSDS applies for 100% Glutaraldehyde; diluted forms should be considered accordingly, since no data is available for all dilutions.