

SAFETY DATA SHEET

Section 1. Product And Company Identification

Product Name: MetriCide® 28
Product Use: Liquid Sterilant/High Level Disinfectant

Manufacturer: METREX® RESEARCH
1717 W. Collins Ave.
Orange, CA 92867
U.S.A.

Information Phone Number: 1-800-841-1428 (Customer Service)

Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

SDS Date of Preparation/Revision: 3/5/18

Section 2. Hazards Identification

US OSHA HAZCOM 2012 / Canadian WHMIS 2015 Classification:

Eye Irritation Category 2A
Respiratory Sensitization Category 1

Label Elements

Warning!



Hazard Phrases

Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Prevention:

Wash thoroughly after handling.
Wear eye protection.
Avoid breathing mist, vapors or spray.
In case of inadequate ventilation wear respiratory protection.

Response:

IF INHALED: remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical attention.



Storage and Disposal

Dispose of contents and container in accordance with local and national regulations.

Section 3. Composition/Information on Ingredients

Component	CAS No.	Amount
Water and non-hazardous ingredients	Mixture	97.5%
Glutaraldehyde	111-30-8	2.5%

Section 4. First Aid Measures

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Seek medical attention if irritation persists.

Skin Contact: Wash thoroughly with soap and water. If skin irritation develops, seek medical attention.

Inhalation: Move to fresh air. If irritation or asthma-like symptoms occur, seek immediate medical attention.

Ingestion: If swallowed, get immediate medical advice by calling a Poison Control Center or hospital emergency room. If advice is not available, take victim and product container to the nearest emergency treatment center or hospital. Do not induce vomiting unless directed to do so by medical personnel. If the victim is alert, rinse their mouth with water. Do not attempt to give anything by mouth to an unconscious person.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Most important symptoms and effects, acute and delayed: Causes eye irritation. Prolonged skin contact may cause irritation. May cause respiratory tract irritation. Ingestion of glutaraldehyde may cause nervous system effects including nausea, dizziness, headache, and drowsiness. Repeated inhalation of vapors may cause asthmatic symptoms in some individuals.

Indication of immediate medical attention and special treatment, if needed: Immediate medical attention is required if respiratory sensitization occurs.

Section 5. Fire Fighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media that is suitable for the surrounding fire.

Specific Hazards Arising from the Chemical: Combustion may produce carbon monoxide and carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored. Cool fire exposed containers with water.

Section 6: Accidental Release Measures



Personal precautions, Protective equipment, and Emergency procedures: Wear appropriate protective clothing and equipment.

Environmental hazards: Avoid release to the environment. Report spill as required by local and federal regulations.

Methods and Materials for Containment and Cleaning up: Stop leak if it is safe to do so and move containers from the spill area. Collect material with an inert absorbent material and place in appropriate, labeled container for disposal.

Section 7. Handling and Storage

Precautions for Safe Handling: Avoid breathing vapors or mists. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Avoid contamination of food. Use in a well-ventilated area in closed containers. Use in accordance with label directions.

Conditions for Safe Storage, Including any Incompatibilities: Store at room temperature. Keep containers closed.

Section 8. Exposure Controls / Personal Protection

Exposure Limits

Chemical	Exposure Limit
Glutaraldehyde	0.05 ppm Ceiling ACGIH TLV (sen)

Appropriate Engineering Controls: Use general or local exhaust ventilation as needed to maintain airborne concentrations below the occupational exposure limits.

Respiratory Protection: None under normal use conditions with adequate ventilation. For operations where exposure limits are exceeded, a NIOSH approved respirator with an organic vapor cartridge is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Hand protection: Protective gloves such as butyl rubber or nitrile are recommended to avoid skin contact.

Eye Protection: Safety goggles recommended.

Skin Protection: Wear protective clothing as needed to avoid skin contact.

Hygiene measures: Suitable eye wash and washing facilities should be available in the work area.

Section 9. Physical and Chemical Properties



Appearance:	Clear, colorless liquid	Odor:	Fruity odor.
Odor Threshold:	0.038 ppm (glutaraldehyde)	pH:	3.2-4.3 inactivated, 6.5-8.5 activated
Melting/Freezing Point:	Not available	Boiling Point/Range:	100°C (212°F)
Flash Point:	Not flammable	Evaporation Rate:	Not available
Flammability: (Solid, Gas)	Not applicable	Flammability Limits:	Not applicable
Vapor Pressure:	0.3 mmHg @20°C (glutaraldehyde)	Vapor Density:	Not available
Relative Density:	>1.0	Solubilities:	Soluble in Water
Partition Coefficient: (N-Octanol/Water)	Not available	Autoignition Temperature:	Not flammable
Decomposition Temperature:	Not available	Viscosity:	Not available

Section 10. Stability and Reactivity

Reactivity: None known.

Chemical Stability: Stable.

Possibility of Hazardous Reactions: None known.

Conditions to avoid: Avoid temperatures above 100°C. Do not allow significant evaporation.

Incompatible Materials: Strong oxidizing agents, acids and bases.

Hazardous decomposition products: Thermal decomposition will produce carbon monoxide and carbon dioxide.

Section 11. Toxicological Information

Potential Health Effects:

Inhalation: Vapors may cause irritation of the nose, throat and upper respiratory tract. Repeated inhalation of glutaraldehyde vapors may cause asthmatic symptoms in some individuals, including cough, wheezing and difficulty breathing.

Skin Contact: May cause skin irritation. No signs of toxicity were observed in a dermal toxicity study in rabbits. Irritating in a primary irritation study with rabbits, effects reversed in 72 hrs. Negative in a skin sensitization study with guinea pigs.

Eye Contact: Causes eye irritation with redness, tearing and pain. Irritation was observed in an eye irritation study in rabbits.

Ingestion: Do not ingest. If swallowed, may irritate mouth, throat and intestinal tract. Ingestion of glutaraldehyde may cause nervous system effects including nausea, dizziness, headache, and drowsiness.

Chronic Hazards: No adverse effects expected based on the available data.



Carcinogen: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

Acute Toxicity Values:

Acute Toxicity Estimate: Oral 7692 mg/kg, Inhalation LC50 10.77 mg/L/4 hr, Dermal >2000 mg/kg
Glutaraldehyde: Oral Rat LD50 200 mg/kg; Inhalation rat LC50 0.28-0.39 mg/L/ 4 hr, Dermal Rabbit LD50 >2000 mg/kg

Section 12. Ecological Information

This product is classified as harmful to the aquatic environment.

Toxicity: No toxicity data available for product.

Glutaraldehyde: 96 hr LC50 *Oncorhynchus mykiss* 10 mg/L, 48 hr EC50 *daphnia magna* 15 mg/L, 72 hr EC50 *Desmodesmus subspicatus* 0.6 mg/L

Persistence and degradability: Glutaraldehyde is readily biodegradable.

Bioaccumulative Potential: Glutaraldehyde: log Kow -0.333, potential for bioaccumulation is low

Mobility in Soil: Glutaraldehyde: highly mobile in soil.

Other Adverse Effects: None known

Section 13. Disposal Considerations

Solution Disposal: Refer to product label for disposal information. Dispose in accordance with national, state/provincial and local regulations.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard in accordance with hospital policy.

Section 14. Transport Information

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
US DOT	None	Not Regulated			None
EU ADR/RID	None	Not Regulated			None
IMDG	None	Not Regulated			None
IATA/ICAO	None	Not Regulated			None

Section 15. Regulatory Information

U.S. Federal Regulations:

EPA SARA 311/312 Hazard Classification: Refer to Section 2 for OSHA Hazard Classification.

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None



Protection of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

International Inventories

US EPA TSCA Inventory: All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

Section 16. Other Information

NFPA Rating: Fire: 1 Health: 2 Instability: 0

SDS Revision History: Section 2 Precautionary Phrases, Section 4 Inhalation. Most important symptoms and effects, acute and delayed, Indication of immediate medical attention and special treatment, if needed, Section 4 Specific Hazards Arising from the Chemical, Section 6 Environmental hazards, Section 11 Eye Contact, Acute Toxicity Values, Section 12 Toxicity, Section 15 SARA 311/312 Hazard Classification

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