

Material Safety Data Sheet

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**Bacterial Freezing Medium - CRY 125-04**

**Section 1 – Chemical Product and Company Identification**

OPS Diagnostics, LLC  
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Lebanon, NJ 08833  
USA  
TEL: (908) 253-3444 For Emergencies, Call (908) 253-3444

**Product Name:** Bacterial Freezing Medium

**MSDS Number:** Trade Secret

**Synonyms:** Bacterial Freezing Medium

**Chemical Formula:** A formulation.

**Molecular Weight:** A formulation.

**Section 2 – Composition, Information on Ingredients**

<u>Component</u>	<u>CAS Number</u>	<u>Molecular Weight</u>	<u>Molecular Formula</u>	<u>Percentage</u>
Glycerol (glycerin) solution	56-81-5	92.09 g/mol	C <sub>3</sub> H <sub>5</sub> (OH) <sub>3</sub>	15%
Sodium Chloride	7647-14-15	58.44 g/mol	NaCl	0.5%

**Section 3 – Hazards Identification**

**EMERGENCY OVERVIEW**

**Appearance:** Brown liquid.

**Caution!** May cause eye and skin irritation. Residual powder may cause respiratory and digestive tract irritation. The toxicological properties of this material have not been fully investigated.

**Target Organs:** None known. May be toxic to kidneys.

**Potential Health Effects**

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation. Expected to be a low ingestion hazard.

**Inhalation:** Low hazard for usual industrial handling. Inhalation of dust may cause respiratory tract infection.

**Chronic:** No information found.

**Section 4 – First Aid Measures**

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid if irritation occurs.

**Skin:** Wash with soap and water. Rinse with plenty of water. Cover the irritated skin with an emollient. Get medical attention if irritated.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

**Section 5 – Fire Fighting Measures**

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam. Do not use water jet.

**Section 6 – Accidental Release Measures**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or shovel up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Use absorbent materials to suck up spills.

**Section 7 – Handling and Storage**

**Handling:** Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion.

**Storage:** Store in a tightly closed container. Store the reagent in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

**Section 8 – Exposure Controls, Personal Protection**

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Exposure Limits**

**Glycerol:** TWA: 10 (mg/m<sup>3</sup>) from ACGIH (TLV) (United States)(1999) Inhalation Total. TWA: 15 (mg/m<sup>3</sup>) from OSHA (PEL).

**Sodium Chloride:** None listed for ACGIH, NIOSH, OSHA- Final PELs

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

**Section 9 – Physical and Chemical Properties**

Component	Appearance	pH	Water Solubility	Specific Gravity/Density	Boiling Point (°C)	Melting Point (°C)	Flash Point (°C)	Ignition Temperature (°C)
Glycerol	Viscous clear liquid	Not available	Soluble	1.2636 g/ml	290	19	Closed Cup: 160 Open Cup: 177	370°C
Sodium Chloride	White Crystalline Powder	7	Soluble	2.165 g/ml	1413	801	Not applicable	Not applicable

**Section 10 – Stability and Reactivity**

Component	Chemical Stability	Conditions to Avoid	Materials to Avoid	Special Remarks on Reactivity
Glycerol	Stable under normal storage	Contact with incompatible materials, excess heat and ignition, sources, moisture	Oxidizing agents	Hygroscopic. Glycerin is incompatible with strong oxidizers such as chromium trioxide, potassium chlorate, or potassium permanganate. Glycerin may react violently with acetic anhydride, aniline and nitrobenzene, chromic oxide, lead oxide and fluorine, phosphorous triiodide, ethylene oxide and heat, silver perchlorate, sodium peroxide, sodium hydride
Sodium Chloride	Stable under normal storage	Incompatible materials, high temperatures	Oxidizing agents, metals and acids	Hygroscopic. Reacts with most nonnoble metals such as iron or steel, building materials (such as cement) Sodium chloride is rapidly attacked by bromine trifluoride. Violent reaction with lithium

**Section 11 – Toxicological Information****1) Glycerol**

RTECS#: MA8050000

CAS#: 56-81-5

**LD50/LC50:** Acute dermal toxicity, rabbit: LD50 = 10000 mg/kg; Acute oral toxicity, mouse: LD50 = 4090 mg/kg; Acute oral toxicity, rat: LD50 = 12600 mg/kg; Acute toxicity to mist, rat: LC50 = 570 mg/m

Carcinogenicity: Not listed by ACGIH, IARC, NTP, or OSHA

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

**2) Sodium Chloride**

RTECS#: VZ4725000

CAS#: 7647-14-5

**LD50/LC50:** Acute oral toxicity, rat: LD50 = 3000 mg/kg; Acute oral toxicity, mouse: LD50 = 4000 mg/kg; Acute dermal toxicity, rabbit: LD50 = >10000 mg/kg; Acute toxicity of dust, rat: LC50 = >42000 mg/m

Carcinogenicity: Not listed by ACGIH, IARC, NTP, or OSHA

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: Mutagenic for mammalian somatic cells, bacteria and/or yeast.

Neurotoxicity: No information found

**Section 12 – Ecological Information****1) Glycerol**

**Ecotoxicity:** Ecotoxicity in water (LC50): 58.5 ppm 96 hours

**BOD5/COD:** Not available.

**Products of Biodegradation:** Hazardous products are unlikely.

**Toxicity of Biodegradation:** Breakdown products are less hazardous than glycerol.

**2) Sodium Chloride**

**Ecotoxicity:** Not available.

**BOD5/COD:** Not available.

**Products of Biodegradation:** Hazardous products are unlikely.

**Toxicity of Biodegradation:** Breakdown products are less hazardous than glycerol

**Section 13 – Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**Section 14 – Transportation Information****Glycerol & Sodium Chloride:**

DOT (US): Not regulated as a hazardous material No information available.

IMDG: Not regulated as a hazardous material No information available.

IATA: Not regulated as a hazardous material No information available.

**Section 15 – Regulatory Information****1) Glycerol**

TSCA	This product is listed on the TSCA inventory
OSHA Hazards:	Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
Canada DSCL/EEC	Not available. S24/25 – Avoid contact with skin and eyes.
Canada WHMIS	This product is not controlled by WHMIS

**2) Sodium Chloride**

TSCA	This product is listed on the TSCA inventory
OSHA Hazards:	Irritant
Canada DSCL/EEC	Possible risks of irreversible effects. S24/25 – Avoid contact with skin and eyes.
Canada WHMIS:	This product is not controlled by WHMIS

**Section 16 – Additional Information**

**MSDS Creation Date:** 6/12/2013

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