

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY**Product Identifier****Product form:** Mixture**Product name:** Glycerolyte 57 Solution**Intended Use Of The Product**

Cryopreservative processing solution. For professional use only.

Name, Address, And Telephone Of The Responsible Party

Fenwal Inc.

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847-550-2300

www.fenwalinc.comEHS@fenwalinc.com**Emergency Telephone Number****Emergency number** : 760-476-3962**SECTION 2: HAZARDS IDENTIFICATION****Classification Of The Substance Or Mixture****GHS-US classification**

Not classified

Label Elements**GHS-US labeling** No labeling applicable**Other Hazards** Not available**Unknown acute toxicity (GHS US)** Not available**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****Mixture**

Name	Product Identifier	% (w/w)	GHS-US classification
Glycerin	(CAS No.) 56-81-5	50 - 60	Not classified
Water	(CAS No.) 7732-18-5	40 - 45	Not classified
Propanoic acid, 2-hydroxy-, monosodium salt, (S)-	(CAS No.) 867-56-1	1 - 5	Not classified
Potassium chloride	(CAS No.) 7447-40-7	0 - 1	Not classified
Phosphoric acid, monosodium salt	(CAS No.) 7558-80-7	0.1 - 1	Not classified
Sodium phosphate dibasic	(CAS No.) 7558-79-4	0.1 - 1	Not classified

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES**Description Of First Aid Measures****General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.**Skin Contact:** Wash with plenty of soap and water. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation persists.**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.**Ingestion:** Get immediate medical attention. Rinse mouth. Do NOT induce vomiting.**Most Important Symptoms And Effects Both Acute and Delayed****General:** Not available**Inhalation:** Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

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Skin Contact: Contact during a long period may cause light irritation.

Eye Contact: May cause eye irritation.

Ingestion: Gastrointestinal irritation.

Chronic symptoms: Not available.

Indication Of Any Immediate Medical Attention And Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From The Substance Or Mixture

Fire hazard: Not considered flammable but may burn at high temperatures.

Explosion hazard: Product is not explosive

Reactivity: Stable at ambient temperature and under normal conditions of use.

Advice For Firefighters

Precautionary measures fire: Not available.

Firefighting instructions: Exercise caution when fighting any chemical fire.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Sodium oxides. Chlorine.

Reference To Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment And Emergency Procedures

General measures: Avoid all contact with skin, eyes, or clothing.

For Non-Emergency Personnel

Protective equipment: Use appropriate personal protection equipment (PPE).

Emergency procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods And Material For Containment And Cleaning Up

For containment: Stop the flow of material, if this is without risk. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up: Absorb and/or contain spill with inert material, then place in suitable container. Clear up spills immediately and dispose of waste safely.

Reference To Other Sections

See heading 8, exposure controls and personal protection.

SECTION 7: HANDLING AND STORAGE

Precautions For Safe Handling

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions For Safe Storage, Including Any Incompatibilities

Storage conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store away from incompatible materials.

Incompatible materials: Strong acids. Strong bases. Strong oxidizers.

Specific End Use(s) Cryopreservative processing solution.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Glycerin (56-81-5)		
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
Québec	VEMP (mg/m ³)	10 mg/m ³

Exposure Controls

Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas.

Personal protective equipment: Not generally required. The use of personal protective equipment may be necessary as conditions warrant.

Materials for protective clothing: Wear chemically resistant materials and fabrics.

Hand protection: Wear chemically resistant protective gloves.

Eye protection: Chemical goggles or safety glasses.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: None required under normal product handling conditions.

Other information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information On Basic Physical And Chemical Properties

Physical state	: Liquid
Appearance	: Aqueous solution, clear, colorless.
Odour	: Not available
Odour threshold	: Not available
pH	: 6.8 (Approximately)
Relative evaporation rate (butylacetate=1)	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: 100 °C (212°F) (water)
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower flammable limit	: Not available
Upper flammable limit	: Not available
Vapour pressure	: Not available
Relative vapour density at 20 °C	: Not available
Relative density	: Not available
Specific gravity	: 1.14
Solubility	: Soluble (water)
Log Pow	: Not available
Log Kow	: Not available
Viscosity, kinematic	: Not available
Viscosity, dynamic	: Not available
Explosion data - sensitivity to mechanical impact	: Not available
Explosion data - sensitivity to static discharge	: Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity Stable at ambient temperature and under normal conditions of use.

Chemical Stability Stable under normal conditions.

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Possibility Of Hazardous Reactions Will not occur.

Conditions To Avoid Direct sunlight. Extremely high or low temperatures. Incompatible materials.

Incompatible Materials Strong oxidizing agents. Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products Carbon oxides (CO, CO₂). Chlorine. Sodium oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information On Toxicological Effects - Product

Acute toxicity : Not classified

LD50 and LC50 Data Not available

Skin corrosion/irritation: Not classified **pH: 6.8 (Approximately)**

Serious eye damage/irritation: Not classified **pH: 6.8 (Approximately)**

Respiratory or skin sensitisation: Not classified

Germ cell mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific target organ toxicity (repeated exposure): Not classified

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Aspiration hazard: Not classified

Symptoms/injuries after inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Symptoms/injuries after skin contact: Contact during a long period may cause light irritation.

Symptoms/injuries after eye contact: May cause eye irritation.

Symptoms/injuries after ingestion: Gastrointestinal irritation.

Information On Toxicological Effects - Ingredient(s)

LD50 and LC50 Data

Potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg
Glycerin (56-81-5)	
LD50 oral rat	12600 mg/kg
LD50 dermal rat	> 21900 mg/kg
Phosphoric acid, monosodium salt (7558-80-7)	
LD50 oral rat	8290 mg/kg
LD50 dermal rabbit	> 7940 mg/kg
Sodium phosphate dibasic (7558-79-4)	
LD50 oral rat	17 g/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Potassium chloride (7447-40-7)	
LC50 fishes 1	1060 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	825 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	2500 mg/l (Exposure time: 72 h - Species: Desmodemus subspicatus)
LC50 fish 2	750 - 1020 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 2	83 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
Glycerin (56-81-5)	
LC50 fishes 1	51 (51 - 57) ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	> 500 mg/l (Exposure time: 24 h - Species: Daphnia magna)

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Persistence And Degradability

Glycerolyte 57 Solution	
Persistence and degradability	Not established.

Bioaccumulative Potential

Glycerolyte 57 Solution	
Bioaccumulative potential	Not established.
Glycerin (56-81-5)	
BCF fish 1	(no bioaccumulation)
Log Pow	-1.76

Mobility In Soil Not available

Other Adverse Effects

Other information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

In accordance with ICAO/IATA/DOT/TDG

UN Number Not regulated for transport

UN Proper Shipping Name Not regulated for transport

Additional information Not regulated for transport

Overland transport Not regulated for transport

Transport by sea Not regulated for transport

Air transport Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal regulations

Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Potassium chloride (7447-40-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Glycerin (56-81-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.
Phosphoric acid, monosodium salt (7558-80-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Propanoic acid, 2-hydroxy-, monosodium salt, (S)- (867-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Sodium phosphate dibasic (7558-79-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

US State regulations

Potassium chloride (7447-40-7)	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
Glycerin (56-81-5)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)	

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U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Hawaii - Occupational Exposure Limits - TWAs
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Massachusetts - Right To Know List
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Washington - Permissible Exposure Limits - TWAs

Phosphoric acid, monosodium salt (7558-80-7)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Sodium phosphate dibasic (7558-79-4)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Polluting Materials List
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Canadian regulations

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WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Potassium chloride (7447-40-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Glycerin (56-81-5)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Phosphoric acid, monosodium salt (7558-80-7)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Propanoic acid, 2-hydroxy-, monosodium salt, (S)- (867-56-1)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
Sodium phosphate dibasic (7558-79-4)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

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

SECTION 16: OTHER INFORMATION

Indication of changes : Revision date: 09/18/2013
Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible For The Preparation Of This Document:

Fenwal Inc.

Phone Number: 847-550-2300

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS