

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY**Product Identifier****Product name:** SAGM**Synonyms:** SAG-M Solution, SAGM Solution, SAG-Mannitol Solution, Saline Adenine Glucose Mannitol Solution, SAG-M Red Blood Cell Preservation Solution, SAG-M Preservation Solution, SAG-M Additive Solution, SAGMAN**Intended Use Of The Product**

Preservative solution. For professional use only.

Name, Address, And Telephone Of The Responsible Party

Fenwal Inc.

Three Corporate Drive

Lake Zurich, IL 60047

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
Water	(CAS No.) 7732-18-5	97 - 100	Not classified
D-Mannitol	(CAS No.) 69-65-8	0.1 - 1	Comb. Dust
Sodium chloride	(CAS No.) 7647-14-5	0.1 - 1	Not classified
D-Glucose, monohydrate	(CAS No.) 77938-63-7	0.1 - 1	Comb. Dust
.alpha.-D-Glucopyranose, monohydrate	(CAS No.) 14431-43-7	0.1 - 1	Comb. Dust

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:** Obtain medical attention if pain, blinking or redness persist. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**Ingestion:** Get immediate medical attention. Rinse mouth. Do NOT induce vomiting.**Most Important Symptoms And Effects Both Acute and Delayed****General:** Not expected to present a significant hazard under anticipated conditions of normal use.**Inhalation:** Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

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Skin Contact: Repeated exposure may cause skin dryness or cracking.

Eye Contact: May cause slight irritation to eyes.

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).

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: Do not allow product to spread into the environment.

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

Avoid release to the environment.

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

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. Do not eat, drink or smoke when using this product.

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.

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Conditions For Safe Storage, Including Any Incompatibilities

Specific End Use(s)

Preservation solution

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

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: Not available.

Hand protection: Wear chemically resistant protective gloves.

Eye protection: Chemical goggles or safety glasses.

Skin and body protection: Wear suitable working clothes.

Respiratory protection: Not required for normal conditions of use.

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	: Not available
Odour	: Not available
Odour threshold	: Not available
pH	: Not available
Relative evaporation rate (butylacetate=1)	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
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 density	: Not available
Solubility	: Not available
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 Hazardous polymerization will not occur.

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

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

Hazardous Decomposition Products Carbon oxides (CO, CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

Information On Toxicological Effects - Product

Acute toxicity : Not classified

LD50 and LC50 Data Not available

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Not classified

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: Repeated exposure may cause skin dryness or cracking.

Symptoms/injuries after eye contact: May cause slight irritation to eyes.

Symptoms/injuries after ingestion: Gastrointestinal irritation.

Information On Toxicological Effects - Ingredient(s)

LD50 and LC50 Data

D-Mannitol (69-65-8)	
LD50 oral rat	13500 mg/kg
Sodium chloride (7647-14-5)	
LD50 oral rat	3 g/kg
LD50 dermal rabbit	> 10 g/kg
LC50 inhalation rat (mg/l)	> 42 g/m ³ (Exposure time: 1 h)
ATE (oral)	3000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Sodium chloride (7647-14-5)	
LC50 fish 1	5560 (5560 - 6080) mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 Daphnia 1	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	340.7 (340.7 - 469.2) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Persistence And Degradability Not available

Bioaccumulative Potential

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Bioaccumulative potential	Not established.
Sodium chloride (7647-14-5)	
BCF fish 1	(no bioaccumulation)

Mobility In Soil Not available

Other Adverse Effects

Other information: Avoid release to the environment.

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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

D-Mannitol (69-65-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium chloride (7647-14-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State regulations

Sodium chloride (7647-14-5)

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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D-Mannitol (69-65-8)

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

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Sodium chloride (7647-14-5)

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

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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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

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.

GHS Full Text Phrases:

Comb. Dust	Combustible Dust
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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