SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier
Product name: ADSOL®
Other means of identification: ADSOL® Red Blood Cell Preservation Solution, ADSOL® Preservation Solution, ADSOL® Additive Solution, AS-1

Intended Use Of The Product
Preservation 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.com
EHS@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

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Product Identifier</th>
<th>% (w/w)</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS No.) 7732-18-5</td>
<td>90 - 99</td>
<td>Not classified</td>
</tr>
<tr>
<td>.alpha.-D-Glucopyranose, monohydrate</td>
<td>(CAS No.) 14431-43-7</td>
<td>1 - 5</td>
<td>Not classified</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>(CAS No.) 7647-14-5</td>
<td>0 - 1</td>
<td>Not classified</td>
</tr>
<tr>
<td>D-Mannitol</td>
<td>(CAS No.) 69-65-8</td>
<td>0 - 1</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description Of First Aid Measures

General: Not expected to present a significant hazard under anticipated conditions of use.

Inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Skin Contact: Gently wash with plenty of soap and water.

Eye Contact: Rinse with plenty of water immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Rinse mouth. Do NOT induce vomiting.

Most Important Symptoms And Effects Both Acute and Delayed

General: May cause mild irritation to eyes and skin.

Inhalation: None expected under normal conditions of use.

Skin Contact: Repeated or prolonged skin contact may cause mild irritation.

Eye Contact: May cause slight irritation.

Ingestion: May be harmful if ingested in large quantities.

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: Not flammable. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media: None.

Special Hazards Arising From The Substance Or Mixture
Fire hazard: Not flammable.
Explosion hazard: Product is not explosive
Reactivity: Stable at ambient temperature and under normal conditions of use

Advice For Firefighters
Precautionary measures fire: Exercise caution when fighting any chemical fire.
Protection during firefighting: Firefighters should wear full protective gear.
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: Avoid all contact with skin, eyes, or clothing.

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.
Methods for cleaning up: Absorb spillage to prevent material damage.

Reference To Other Sections
Refer to section 8 for Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions For Safe Handling Avoid all contact with skin, eyes, or clothing.

Conditions For Safe Storage, Including Any Incompatibilities
Storage conditions: Keep container tightly closed. Store in a cool, dry, well-ventilated place.

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: Provide adequate ventilation.
Personal protective equipment: Avoid all unnecessary exposure.
Materials for protective clothing: Not available
Hand protection: 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.

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: 4.6 - 7.2
Relative evaporation rate (butylacetate=1): Similar to water
Melting point: Similar to water
Boiling point: Similar to water
Flash point: Not flammable
Auto-ignition temperature: Not applicable
Decomposition Temperature: Not applicable
Flammability (solid, gas): Not flammable
Lower flammable limit: Not flammable
Upper flammable limit: Not flammable
Vapour pressure: Similar to water
Relative vapour density at 20 °C: Similar to water
Relative density: Similar to water
Specific gravity: Similar to water
Solubility: Not applicable
Log Pow: Not applicable
Log Kow: Not applicable
Viscosity, kinematic: Similar to water
Viscosity, dynamic: Similar to water
Explosion data - sensitivity to mechanical impact: Not applicable
Explosion data - sensitivity to static discharge: Not applicable

SECTION 10: STABILITY AND REACTIVITY
Reactivity: Stable at ambient temperature and under normal conditions of use.
Chemical Stability: Stable at standard temperature and pressure.
Possibility Of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions To Avoid: Extremely high or low temperatures.
Incompatible Materials: Strong oxidizing agents.

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: None expected under normal conditions of use.
Symptoms/injuries after skin contact: Repeated or prolonged skin contact may cause mild irritation.
Symptoms/injuries after eye contact: May cause slight irritation.
Symptoms/injuries after ingestion: May be harmful if ingested in large quantities.
Information On Toxicological Effects - Ingredient(s)
LD50 and LC50 Data
**SECTION 12: ECOLOGICAL INFORMATION**

**Toxicity**

**Ecology - general:** No known ecological damage caused by this product.

**Sodium chloride (7647-14-5)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fishes</td>
<td>5560 (5560 - 6080) mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>340.7 (340.7 - 469.2) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])</td>
</tr>
</tbody>
</table>

**D-Mannitol (69-65-8)**

| LD50 oral rat              | 13500 mg/kg                                |

**Persistence And Degradability**

Not available

**Bioaccumulative Potential**

**Sodium chloride (7647-14-5)**

| BCF fish 1                  | (no bioaccumulation)                      |

**Mobility In Soil**

Not available

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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.

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**SECTION 14: TRANSPORT INFORMATION**

In accordance with ICAO/IATA/DOT/TDG

<table>
<thead>
<tr>
<th>UN Number</th>
<th>Not regulated for transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Proper Shipping Name</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>Overland transport</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>Transport by sea</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>Air transport</td>
<td>Not regulated for transport</td>
</tr>
</tbody>
</table>

---

**SECTION 15: REGULATORY INFORMATION**

**US Federal regulations**

**Water (7732-18-5)**

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

**D-Mannitol (69-65-8)**

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**

**ADSOL®**

WHMIS Classification: Uncontrolled product according to WHMIS classification criteria

**Water (7732-18-5)**

Listed on the Canadian DSL (Domestic Substances List) inventory.
ADSOL®
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
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<th>Uncontrolled product according to WHMIS classification criteria</th>
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<td>Sodium chloride (7647-14-5)</td>
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</tbody>
</table>

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 11/05/2013
Data sources : 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