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

Product Identifier
Product name: ACD-B

Intended Use Of The Product
Use of the substance/mixture: Anticoagulant. 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

Mixture

<table>
<thead>
<tr>
<th>Name</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>Glucose</td>
<td>(CAS No.) 50-99-7</td>
<td>1 - 5</td>
<td>Combustible Dust</td>
</tr>
<tr>
<td>Trisodium citrate dihydrate</td>
<td>(CAS No.) 6132-04-3</td>
<td>1 - 5</td>
<td>Combustible Dust</td>
</tr>
</tbody>
</table>

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: None expected under normal conditions of use. When symptoms occur: go into open air and ventilate suspected area.

Skin Contact: Wash with plenty of soap and water. Remove contaminated clothing. Drench affected area with water for at least 15 minutes.

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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 available

Inhalation: Inhalation is not considered a potential route of exposure.

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

Eye Contact: May cause slight irritation.

Ingestion: May cause a light irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic symptoms: Not available
Indication Of Any Immediate Medical Attention And Special Treatment Needed
If medical advice is needed, have product container or label at hand.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media
Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media: None.

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: Hazardous reactions will not occur under normal conditions.

Advice For Firefighters
Precautionary measures fire: Exercise caution when fighting any chemical fire.
Firefighting instructions: Use water spray or fog for cooling exposed containers.
Protection during firefighting: Firefighters should wear full protective gear. 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
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: Absorb and/or contain spill with inert material, then place in suitable container.
Methods for cleaning up: 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: Keep container tightly closed. Store in a dry, cool and well-ventilated place.
Specific End Use(s)
Anticoagulant.

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 all national/local regulations are observed.
**Personal protective equipment:** Gloves

**Materials for protective clothing:** Not available

**Hand protection:** Protective gloves

**Eye protection:** Not available

**Skin and body protection:** Wear suitable working clothes.

**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**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
<tr>
<td>Odour</td>
<td>Not available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>4.5 - 5.5 at 25°C (77°F)</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower flammable limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper flammable limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Similar to water</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
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</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific gravity density</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>Not available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosion data - sensitivity to mechanical impact</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosion data - sensitivity to static discharge</td>
<td>Not available</td>
</tr>
</tbody>
</table>
ACD-B
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 10: STABILITY AND REACTIVITY
Reactivity  Hazardous reactions will not occur under normal conditions.
Chemical Stability  Stable under normal conditions.
Possibility Of Hazardous Reactions  Hazardous polymerization will not occur.
Conditions To Avoid  Direct sunlight. Extremely high or low temperatures.
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: Inhalation is not considered a potential route of exposure.
Symptoms/injuries after skin contact: Repeated exposure may cause skin dryness or cracking.
Symptoms/injuries after eye contact: May cause slight irritation.
Symptoms/injuries after ingestion: May cause a light irritation of the linings of the mouth, throat, and gastrointestinal tract.

Information On Toxicological Effects - Ingredient(s)

LD50 and LC50 Data

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LD50 Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>LD50 oral rat 25800 mg/kg</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION
Toxicity
Ecology - general: No known ecological damage caused by this product.
Persistence And Degradability

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACD-B</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACD-B</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

Mobility In Soil  Not available
Other Adverse Effects
Other information: Not available

SECTION 13: DISPOSAL CONSIDERATIONS
Waste disposal recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.
ACD-B

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and 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
Glucose (50-99-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State regulations
Neither this product nor its chemical components appear on any US state lists.

Canadian regulations
ACD-B
WHMIS Classification Uncontrolled product according to WHMIS classification criteria
Water (7732-18-5)
Listed on the Canadian DSL (Domestic Substances List) inventory.
WHMIS Classification Uncontrolled product according to WHMIS classification criteria
Glucose (50-99-7)
Listed on the Canadian DSL (Domestic Substances List) inventory.
WHMIS Classification Uncontrolled product according to WHMIS classification criteria
Trisodium citrate dihydrate (6132-04-3)
WHMIS Classification Uncontrolled product according to WHMIS classification criteria

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 : 11/05/2013
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 |

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