Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: ACS-CWO-119
Identifier Uses: Cooling Water Treatment.
Supplier: Advanced Chemical Service Inc.
3410 La Sierra Ave. #F271
Riverside, CA 92503
Tel: 800-319-9227
Contact Person: 800-319-9227 / www.advancedchemicalservice.com
Emergency Telephone: 24-HOUR EMERGENCY TELEPHONE: INFOTRAC: 1-800-535-5053 INTERNATIONAL #: 1-352-323-3500

SECTION 2: HAZARDS IDENTIFICATION

Appearance: Liquid
Color: Clear, amber
Odor: Mild.

Pictogram(s):

Signal Word: Warning

Hazard Statements:
H320 Causes eye irritation.
H315 Causes skin irritation.
H302 Harmful if swallowed

Precautionary Statements:
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P3101 + P312: If swallowed: Immediately call a POISON CENTER or doctor/ physician.
P330: Rinse Mouth

Contains:
- Maleic acid
- Etidronic acid
- Phosphonic acid
- Potassium hydroxide
- Benzotriazole

GHS Classification:
Physical and Chemical Hazards: Not classified
Human Health: Acute Tox 5 - H303, Eye Dam. 1 - H318, Skin. Sens 1 - H317, Skin Irrit. 2 - H315
Environment: Not classified

OSHA Regulatory Status: This product is Hazardous under the OSHA Hazard communication Standard.

Inhalation: No specific symptoms noted; inhalation is not believed to be a likely route of exposure.
Ingestion: Harmful if swallowed.
Skin contact: Skin irritation. May cause irritation, redness, and pain.
Eye contact: May cause moderate irritation to eyes. Symptoms of exposure may include redness, swelling, tearing or pain.
Routes of Exposure  No Information available.

SECTION 3: Composition/Information on Ingredients

Composition Comments  Confidential business information has been removed without affecting the overall safety information on the safety data sheet.

SECTION 4: FIRST AID MEASURES

Description of first aid measures
General Information  General first aid, rest, warmth and fresh air.
Inhalation  If this product is inhaled, move the exposed person to fresh air promptly. Get Medical attention if symptoms persist.
Ingestion  Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If this product is ingested, drink small amounts of water and seek medical attention promptly.
Skin contact  If the product penetrates the clothing, promptly remove the contaminated clothing or shoes, and flush the affected area as described. Seek medical attention if irritation persists. If this product contacts the skin, immediately flush the affected area with plenty of clean running water for at least fifteen (15) minutes.
Eye contact  If the product contacts the eyes, immediately flush eyes with plenty of clean running water for at least fifteen (15) minutes, lifting the upper and lower eyelids occasionally. Remove contact lenses if worn. Seek medical attention if irritation persists.

Most important symptoms and effects, both acute and delayed
General Information  No specific symptoms noted; inhalation is not believed to be a likely route of exposure.
Ingestion  Harmful if swallowed.
Skin contact  Skin irritation. May cause irritation, redness, and pain.
Eye contact  May cause moderate irritation to eyes. Symptoms of exposure may include redness, swelling, tearing or pain.
Routes of Exposure  No Information available.

Most important symptoms and effects, both acute and delayed Notes To The Physician  Treat symptomatically.

SECTION 5: Firefighting Measures

Auto Ignition Temperature (°C)  No Information available.
Flammability Limit - Lower (%)  No Information available.
Flammability Limit - Upper (%)  No Information available.
Flashpoint  No Information available.
Extinguishing Media  Use fire-extinguishing media appropriate for surrounding materials. Water, foam, dry chemical or carbon dioxide.

Hazardous combustion products  Combustion may lead to the release of oxides of carbon, possibly toxic phosphines.
Unusual Fire & Explosion Hazards  Dried residue can thermally decompose, giving off irritating and possibly toxic fumes.
Special Fire Fighting Procedures  Use water to cool containers exposed to a fire.
Protective equipment for fire-fighters  Fire fighters should wear full protective equipment, and have self-contained breathing apparatus available.
SECTION 6: Accidental Release Measures

Personal Precautions
For personal protection, see section 8.

Environmental Precautions
Keep out of drains, municipal sewers, open bodies of water and water course.

Spill Clean Up Methods
Safely stop source of spill. Clean up spills immediately. Restrict non-essential personnel from the area. Wear protective clothing, goggles and respirator if ventilation is not adequate. For small spills, dilute with large amounts of water and flush to sewer. For large spills, squeegee and collect the spillage or vacuum the spillage. Place collected spillage into containers for reuse or disposal. Dispose according to local, state or federal regulations at an approved chemical waste reprocessing facility. Flush spill area with large amounts of water.

SECTION 7: Handling and Storage

Handling
Use proper personal protection when handling (refer to Section 8). Use under well-ventilated conditions. Avoid contact with eyes, skin and clothing. Avoid breathing vapors and mists. Avoid prolonged or repeated contact. Do NOT ingest. Wash thoroughly after handling. Rinse container before disposal.

Usage Description
Use only according to directions.

Storage Precautions
The recommended shelf life is two (2) years. It is recommended that products be retested if stored for more than two (2) years. Under ideal storage conditions, the shelf life is almost indefinite.

Specific End Use(s)
The identified uses are in section 1 of this Safety Data Sheet.

SECTION 8: Exposure Controls/Personal Protection

Protective Equipment

<table>
<thead>
<tr>
<th>Component</th>
<th>STD</th>
<th>TWA (8 hrs.)</th>
<th>STEL (15mins)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>propan-2-ol isopropyl alcohol</td>
<td>OSHA</td>
<td>400ppm</td>
<td>980mg/m3</td>
<td></td>
</tr>
<tr>
<td>Isopropanol</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Ingredient Comments
OSHA

Process Conditions
Provide eyewash, quick drench.

Engineering Measures
General mechanical ventilation is recommended for enclosed areas.

Respiratory Equipment
Use of respirator protection is not generally required. However, if exposure is above the stated limits or ventilation is inadequate, use a NIOSH approved acid gas/organic vapor respirator to reduce potential for inhalation exposure. When using respirator cartridges, they must be changed frequently to assure breakthrough exposure does not occur.

Hand Protection
Use rubber or plastic gloves to minimize skin contact.

Eye Protection
To avoid contact with eyes, use safety glasses or chemical splash goggles. Face shield is recommended. Eye wash station should be available in the work area.

Hygiene Measures
DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance
Clear, amber liquid.

Color
Clear, amber liquid.

Odor
Mild.

Odor Threshold - Lower
No Information available.
Odor Threshold - Upper: No Information available.

pH-Value, Conc. Solution: 7.37

Melting point: 32.0 °F

Initial boiling point and boiling range: 212.0 °F

Flash point: No Information available.

Evaporation rate: No Information available.

Flammability State: No Information available.

Flammability Limit - Lower (%): No Information available.

Flammability Limit - Upper (%): No Information available.

Vapor pressure: 23.8 mm Hg

Vapor Density (air=1): No Information available.

Relative density: 1.117 @ 68.0°F

Bulk Density: No Information available.

Solubility: Completely soluble in water.

Decomposition temperature: No Information available.

Partition coefficient; n-octanol/water: No Information available.

Auto Ignition Temperature (°C): No Information available.

Viscosity: No Information available.

Explosive Properties: No Information available.

Oxidizing properties: No Information available.

Molecular Weight: No Information available.

Volatile Organic Compound: No Information available.

### SECTION 10: Stability and Reactivity

**Reactivity:** Reactions may occur with strong alkalis, oxidizing materials and amines.

**Stability:** This product is stable at ambient temperatures and atmospheric pressures.

**Hazardous Polymerization:** Hazardous polymerization is not expected to occur under normal temperatures and pressures.

**Hazardous Decomposition Products:** Oxides of carbon, possibly toxic phosphines.

**Conditions to Avoid:** Avoid contact with strong alkalis, oxidizing materials and amines.

**Materials to Avoid:** Keep away from strong alkalis, oxidizing materials and amines.

### SECTION 11: Toxicological Information

**Toxicological Information:** No toxicological information for the overall finished product.

**Acute Toxicity (Oral LD50):** \(>3687.00\,\text{mg/kg}\) Rat

**Acute Toxicity (Dermal LD50):** \(>1297.00\,\text{mg/kg}\) Rabbit

**Acute Toxicity (Inhalation LC50):** No Information available.
Skin Corrosion/Irritation: No Information available.

Respiratory Sensitization: No Information available.

Skin Sensitization: No Information available.

Reproductive Toxicity: No Information available.

Germ Cell Mutagenicity: No Information available.

Genotoxicity - In Vitro: No Information available.

Genotoxicity - In Vivo: No Information available.

Carcinogenicity:

NTP - Carcinogenicity: The product and its components are not listed.

OSHA - Carcinogenicity: The product and its components are not listed.

IARC Carcinogenicity: Propan-2-ol isopropyl alcohol isopropanol: 3 IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Specific Target Organ Toxicity - Single Exposure: No Information available.

Specific Target Organ Toxicity - Repeated Exposure: No Information available.

<table>
<thead>
<tr>
<th>Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
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<tbody>
<tr>
<td>potassium hydroxide</td>
<td>284mg/kg Rat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>benzo triazole</td>
<td>675mg/kg Rat</td>
<td>&gt;2000mg/kg Rabbit</td>
<td></td>
</tr>
<tr>
<td>propan-2-ol isopropyl alcohol isopropanol</td>
<td>5480mg/kg Rat</td>
<td>13000mg/kg Rabbit</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: Ecological Information

Ecotoxicity: No Information available.

Acute Toxicity - Fish: LC50 96 Hours >250.00ppm Onchorhynchus mykiss (Rainbow Trout)

Acute Toxicity - Aquatic Invertebrates: LC50 48 Hours >1300.00 Daphnia magna

Acute Toxicity - Aquatic Plants: No Information available.

Degradability: No information available.

Bioaccumulative Potential: Completely soluble in water.

Mobility: Completely soluble in water.

Results of PBT and vPvB Assessment: The product does not contain any PBT or vPvB Substances.

Other Adverse Effects: None known.

<table>
<thead>
<tr>
<th>Name</th>
<th>Acute Toxicity (Fish)</th>
<th>Acute Toxicity (Aquatic)</th>
<th>Acute Toxicity (Aquatic Plants)</th>
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</thead>
<tbody>
<tr>
<td>benzotriazole</td>
<td>LC50 96 Hours 21.40mg/l Onchorhynchus mykiss (Rainbow Trout)</td>
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</tr>
</tbody>
</table>

SECTION 13: Disposal Considerations

Waste Management: When handling waste, consideration should be made to the safety precautions applying to handling of the product.

Disposal Methods: Do NOT dump into any sewers, on the ground or into any body of water. Rinse containers before disposal. Since emptied containers contain product residue, follow label warnings even after container is emptied. Dispose in accordance with all applicable federal, state and local laws and regulations.
## SECTION 14: Transport Information

<table>
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<tr>
<th>Description</th>
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<tbody>
<tr>
<td>UN No. (DOT/TDG)</td>
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<tr>
<td>UN No. (IMDG)</td>
<td>Not applicable.</td>
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<tr>
<td>UN No. (ICAO)</td>
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<tr>
<td>DOT Proper Shipping Name</td>
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</tr>
<tr>
<td>TDG Proper Shipping Name</td>
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<tr>
<td>DOT Hazard Class</td>
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<tr>
<td>TDG Class</td>
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<tr>
<td>TDG Label(s)</td>
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<tr>
<td>IMDG Class</td>
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<tr>
<td>ICAO Class</td>
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### Transport Labels

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<td>DOT Pack Group</td>
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</tr>
<tr>
<td>IMDG Pack Group</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Air Pack Group</td>
<td>Not applicable.</td>
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<tr>
<td>EMS</td>
<td>Not applicable.</td>
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</table>

- Environmentally Hazardous Substance/Marine Pollutant: No

## SECTION 15: Regulatory Information

### US Federal Regulations

#### SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

The following ingredients are listed: maleic acid

#### CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed: maleic acid, potassium hydroxide

#### SARA Extremely Hazardous Substances EPCRA Reportable Quantities

The following ingredients are listed: maleic acid

#### SARA 313 Emission Reporting

The following ingredients are listed: maleic acid, propan-2-ol isopropyl alcohol isopropanol

#### CAA Accidental Release Prevention

The following ingredients are listed: maleic acid

#### OSHA Highly Hazardous Chemicals

The following ingredients are listed: None listed.

### US State Regulations

#### California Proposition 65 Carcinogens and Reproductive Toxins

The following ingredients are listed: None listed.

#### California Air Toxics “Hot Spots” (A-I)

The following ingredients are listed: None listed.

#### California Air Toxics “Hot Spots” (A-II)

The following ingredients are listed: None listed.
Massachusetts “Right To Know” List
The Following ingredients are listed
maleic acid
potassium hydroxide
benzotriazole
propan-2-ol isopropyl alcohol isopropanol

Rhode Island “Right To Know” List
The Following ingredients are listed
maleic acid
potassium hydroxide
propan-2-ol isopropyl alcohol isopropanol

Minnesota “Right To Know” List
The Following ingredients are listed
potassium hydroxide
propan-2-ol isopropyl alcohol isopropanol

New Jersey “Right To Know” List
The Following ingredients are listed
maleic acid
phosphonic acid
potassium hydroxide
benzotriazole
propan-2-ol isopropyl alcohol isopropanol

Pennsylvania “Right To Know” List
The Following ingredients are listed
maleic acid
phosphonic acid
potassium hydroxide
propan-2-ol isopropyl alcohol isopropanol
SECTION 16: Other Information

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

<p>| | |</p>
<table>
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<tr>
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<tbody>
<tr>
<td>Health</td>
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<td>Flammability</td>
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<tr>
<td>Physical Hazard</td>
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<tr>
<td>Personal Protection</td>
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Revision Comments
Revision Date: 06/04/2015
Revision: 2

Disclaimer
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