



WATER TREATMENT SERVICES

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WTSC-311

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: **WTSC-311**
CHEMICAL DESCRIPTION: Aqueous Anionic Copolymer Solution
PRODUCT CLASS: Cooling Water
VERSION: 8-16-06

SECTION 2: INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %	OSHA PEL	ACGIH TLV
Anionic copolymer (AA/AMPS) acrylic acid (AA)	37350-42-8	40-50	None established	None established
acrylamidomethylpropylsulfonic acid (AMPS)				
Sodium bisulfite	7631-90-5	1-5	TWA: 5 mg/m ³	TWA: 5 mg/m ³

SECTION 3: HAZARDS IDENTIFICATION

*****EMERGENCY OVERVIEW*****

Clear colorless to pale yellow liquid.
This product may cause eye and skin irritation with prolonged contact.

PRIMARY ROUTES OF ENTRY: Eye and skin contact

TARGET ORGANS: Eye and skin

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: A review of available data does not identify any worsening of existing conditions.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: This product may cause irritation with prolonged contact.

SKIN CONTACT: Prolonged exposure to this product may cause irritation of the skin.

INGESTION: Not a likely route of exposure. No adverse effects are expected.

INHALATION: Not a likely route of exposure. No adverse effects are expected.

SUBCHRONIC, CHRONIC: A review of available data does not identify any symptoms from exposure not previously mentioned.

CARCINOGENICITY:

NTP: No ingredients listed in this section

IARC: No ingredients listed in this section

OSHA: No ingredients listed in this section

SECTION 4: FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids to ensure complete rinsing. Seek medical aid if symptoms develop.

SKIN CONTACT: In a timely manner, remove contaminated clothing and wash the affected area thoroughly with plenty of soap and water. Seek medical aid if symptoms occur. Wash clothing before reuse.

INGESTION: Do not induce vomiting without medical advice. If victim is conscious and alert, washout mouth and give water to drink. If symptoms develop, seek medical advice. Never give anything by mouth to an unconscious person.

INHALATION: If inhalation occurs, remove victim to fresh air. If breathing stops, give artificial respiration. If breathing is difficult, have a trained medical person give oxygen. Seek medical aid if symptoms develop.

NOTE TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

SECTION 5: FIRE-FIGHTING MEASURES

FLASHPOINT: >200 °F (>93 °C) [TCC]

This product is not by definition a "flammable liquid" or a "combustible liquid".

LOWER FLAMMABLE LIMIT: Not applicable

UPPER FLAMMABLE LIMIT: Not applicable

AUTO-IGNITION TEMPERATURE: Not available

EXTINGUISHING MEDIA: This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use extinguishing media appropriate for the surrounding fire.

FIRE-FIGHTING INSTRUCTIONS: Exercise caution when fighting any chemical fire. In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

FIRE & EXPLOSION HAZARDS: Product may emit toxic gases under fire conditions.

DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce oxides of carbon, nitrogen, sulfur, and sodium.

NFPA CODES:

Health = 0

Flammability = 1

Reactivity = 0

Special Hazard = None

Hazard Rating Scale: 0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Do not touch spilled material. Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Ventilate the spill area if possible.

METHODS FOR CLEAN-UP:

Small spills: Soak up spill with an absorbent material. Place residues in a suitable, covered, properly labeled container. Wash the affected area.

Large spills: Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal).

SECTION 7: HANDLING AND STORAGE**HANDLING:**

Avoid contact with eyes, skin, and clothing.

Do not take internally.

Wash thoroughly after handling.

Ensure that all containers are labeled.

Keep containers closed when not in use.

STORAGE:

Store in a cool, well-ventilated area away from incompatible materials.

SUITABLE CONSTRUCTION MATERIAL:

Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

UNSUITABLE CONSTRUCTION MATERIAL:

Brass, Hypalon, Viton, Neoprene, 304 Stainless Steel, and EPDM

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE/FACE PROTECTION: Chemical splash goggles

HAND PROTECTION: Neoprene, Nitrile, Butyl, PVC or Natural Rubber gloves

SKIN PROTECTION: Wear standard body covering clothing

RESPIRATORY PROTECTION: Respiratory protection is not normally needed.

ENGINEERING CONTROLS: General ventilation is recommended.

WORK PRACTICES: An eye wash station and safety shower should be accessible in the immediate area of use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

pH: 2.5-3.5

SPECIFIC GRAVITY: 1.20-1.25 g/mL

SOLUBILITY IN WATER: Complete

BOILING POINT: Not available

FREEZING POINT: 28 °F (-2.2 °C)

VAPOR DENSITY: Not available

VAPOR PRESSURE: Same as water

VISCOSITY: 850 cps @25°C

VOC CONTENT: 0% Calculated

APPEARANCE AND ODOR: Clear, colorless to pale yellow liquid with a mild odor.

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Freezing temperatures

INCOMPATIBILITIES: Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions, and/or toxic vapors.

DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce oxides of carbon, nitrogen, sulfur, and sodium.

SECTION 11: TOXOLOGICAL INFORMATION**ON INGREDIENTS:**

<u>Test Material</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
Anionic copolymer, on an active basis	>1,400 mg/Kg	>560 mg/Kg	Not available

SENSITIZATION: This product is not expected to be a sensitizer.

SECTION 12: ECOLOGICAL INFORMATION**ON PRODUCT:**

<u>Test Material</u>	<u>Aquatic Toxicity Data</u>
Anionic copolymer, on a product basis	48 hr LC50 (Daphnia magna): 6,222 mg/L 96 hr LC50 (Bluegill sunfish): >16,667 mg/L 96 hr LC50 (Rainbow trout): 8,166 mg/L

<u>Test Material</u>	<u>Parameter</u>	<u>Result</u>
Anionic copolymer, 28% active product	Total Organic Carbon (TOC)	128,000 ppm
Anionic copolymer, 28% active product	Chemical Oxygen Demand (COD)	310,000 ppm
Anionic copolymer, 28% active product	Biological Oxygen Demand (BOD)	<5,000 ppm

The organic portion of this preparation is expected to be poorly biodegradable.

MOBILITY: The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provide by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models. If released into the environment, this material is expected to distribute to the air, water, and soil/sediment in the approximate respective percentages:

<u>Air</u> <5%	<u>Water</u> 10-30%	<u>Soil/Sediment</u> 70-90%
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The portion in water is expected to be soluble or dispersible.

BIOACCUMULATION POTENTIAL: This preparation or material is not expected to bioaccumulate.

SECTION 13: DISPOSAL

RCRA STATUS: Discarded product, as sold, would not be considered a RCRA Hazardous Waste.

DISPOSAL: Dispose of in accordance with local, state, and federal regulations.

SECTION 14: TRANSPORTATION

DOT CLASSIFICATION:

Proper Shipping Name: Not applicable

Primary Hazard Class/Division: Not restricted

UN Number: Not applicable

Packing Group: Not applicable

Label: None

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Status: Hazardous

TSCA: The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA: EPA Hazardous Substances (40 CFR 302):

Chemical Name

CERCLA Reportable Quantity (RQ)

None

SARA TITLE III (Sections 302, 311, 312, and 313):

Section 302 Extremely Hazardous Substances (40 CFR 355):

<u>Chemical Name</u>	<u>CAS#</u>	<u>RQ</u>	<u>TPQ</u>
None			

Section 311 and 312 Health and Physical Hazards:

<u>Immediate</u>	<u>Delayed</u>	<u>Fire</u>	<u>Pressure</u>	<u>Reactivity</u>
yes	no	no	no	no

Section 313 Toxic Chemicals (40 CFR 372):

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Percent by Weight</u>
None		

SECTION 16: OTHER INFORMATION

HMIS RATINGS: Health = 1 Flammability = 1 Reactivity = 0

Hazard Rating Scale: 0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

The preceding information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change, and the conditions of handling and use or misuse are beyond our control, Water Treatment Services makes no warranty, either express or implied, with respect to the completeness or continuing accuracy of the information contained herein, and disclaims all liability for reliance thereon. User should satisfy himself that he has all current data relevant to his particular use.