



WATER TREATMENT SERVICES, INC.

P.O. BOX 235
WENDEL, PA 15691

For 24 hour emergency service contact INFOTRAC at 800-535-5053
For additional information contact 724-396-2542

Safety Data Sheet

WTSCT-327

1. IDENTIFICATION

Product name	WTSCT-327
Description	Aqueous phosphonate solution
Product class	Cooling Water
Supplier address	P.O. Box 235 Wendel, PA 15691-0235
Telephone numbers	
<u>Company Phone Number</u>	(724) 396-2542
<u>Emergency Telephone</u>	INFOTRAC 800-535-5053

2. HAZARDS IDENTIFICATION

Hazard classification	Skin Corrosion, Category 1 Serious Eye Damage, Category 1
Signal word	Danger
Hazard statements	Causes severe skin burns and eye damage. Causes serious eye damage.

Pictograms of related hazards



Precautionary statements

Prevention

Wash skin thoroughly after handling.
Wear protective gloves, protective clothing, eye protection, and face protection.

Response

Wash contaminated clothing before reuse.
Specific treatment—see "First Aid Measures."
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately contact a POISON CENTER or health care provider.
IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or emergency shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if

present and easy to do. Continue rinsing. Immediately contact a POISON CENTER or health care provider.

Storage

Store locked up.

Disposal

Dispose of contents and container in accordance with local, state, and federal regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %
2-Phosphono-1,2,4-butanetricarboxylic acid (PBTC)	37971-36-1	40-50
Non-hazardous substances	Water	>50

4. FIRST-AID MEASURES

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally to ensure complete rinsing. Remove contact lenses if present and easy to do, then resume rinsing. Get medical attention immediately.
Skin contact	Remove contaminated clothing and wash the affected area with soap and water. Wash contaminated clothing before reuse.
Ingestion	If swallowed, DO NOT induce vomiting. Rinse mouth and get emergency medical attention. Do not give anything by mouth unless instructed to do so by a poison center or health care provider.
Inhalation	If inhaled, move victim to fresh air. Seek emergency medical attention if breathing is difficult; perform artificial respiration if breathing stops.
Note to health care provider	No specific information—treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use extinguishing media appropriate for the surrounding fire.
Unsuitable extinguishing media	No information available
Protective equipment and precautions for firefighters	Exercise caution when fighting any chemical fire. A self-contained breathing apparatus and protective clothing are essential. Use water to keep fire-exposed containers cool.
Specific hazards	Combustion may produce toxic gases.
Hazardous combustion products	Carbon oxides, sulfur oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Evacuate the area of all non-essential personnel. Do not touch spilled material without proper protective equipment. Ventilate the area and mitigate further release if it is safe to do so. Avoid contact with eyes.

Methods for clean-up

Small spills Contain spill and soak up with an inert absorbent material and place residues in a properly labeled container for disposal. Avoid discharge into sewer or surface water.

Large spills Contain spill using trenches, diking, or absorption with an inert material (i.e. sand or earth). Reclaim spilled material into recovery or salvage drums or tank truck for proper disposal.

7. HANDLING AND STORAGE

Advice on safe handling Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash hands thoroughly after handling.

Storage conditions Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.

Suitable materials of construction No information available

Unsuitable materials of construction No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/face protection Chemical splash goggles

Skin protection Chemical-resistant gloves and body-covering clothing

Respiratory protection Respiratory protection is not normally required. A respirator is recommended if significant mists, vapors, or aerosols are generated.

Engineering controls Adequate ventilation, eye-wash station, and emergency shower

General hygiene considerations Do not eat, drink, or smoke while handling this product. Wash hands thoroughly after handling.

Chemical Name	OSHA PEL	ACGIH TLV
2-Phosphono-1,2,4-butanetricarboxylic acid (PBTC)	None established	None established
Non-hazardous substances	None established	None established

9. PHYSICAL AND CHEMICAL PROPERTIES

pH	<2.0
Appearance	Clear colorless to pale yellow liquid
Odor	Mild
Odor Threshold	No information available
Melting/freezing point	5°F (-15°C)
Initial boiling point/boiling range	212°F (100°C)
Flash point	>212°F (100°C)
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapor pressure	19.6 mbar @ 68°F (20°C); 107 mbar @ 122°F (50°C)
Vapor density	No information available
VOC content	50-55%
Specific gravity	1.27-1.30
Solubility	Miscible in water
Partition coefficient n-octanol/water	No information available
Auto-ignition temperature	>932°F (500°C)
Decomposition temperature	>212°F (100°C)
Viscosity	15-25 mPa*s @ 68°F (20°C)

10. STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions of storage and handling.
Hazardous polymerization	Polymerization will not occur.
Conditions to avoid	Extreme temperatures, incompatibilities
Incompatibilities	Strong bases, oxidizers
Hazardous decomposition products	No known non-thermal decomposition hazards.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure Skin, eyes, ingestion

Acute toxicity**WTSCT-327**

Parameter	Result
LD ₅₀ , Dermal (rat)	>8,000 mg/kg
LD ₅₀ , Inhalation (rat)	>3,958 mg/m ³ /4hr
LD ₅₀ , Oral (rat)	>8,000 mg/kg
LD ₅₀ , Oral (rat)	>13,000 mg/kg
Reverse Mutation Assay, Salmonella typhimurium	Negative for mutagenicity, with and without metabolic activation.
Micronucleus assay	Negative for genotoxicity
Sensitization, Dermal (guinea pigs)	Not sensitizing
Teratogenicity, OECD 414 (rat)	No embryotoxicity or teratogenicity

Acute symptoms and effects

Eye	Eye irritation with or without pain, burning, itching, redness, and discharge.
Skin	Skin irritation with or without pain, burning, itching, redness, and swelling. Symptoms may be exacerbated by open wounds, excoriations, rashes, or other skin breaches.
Ingestion	Gastrointestinal distress with or without nausea, vomiting, and diarrhea.
Inhalation	Upper respiratory irritation with or without cough, watering of the eyes, and postnasal drip.
Reproductive effects	No information available
Teratogenicity	Negative for teratogenicity
Mutagenicity	Negative for mutagenicity
Embryotoxicity	Negative for genotoxicity
Sensitization to product	Not a sensitizer
Synergistic products	No information available
Carcinogenicity	No components have been identified as carcinogenic by OSHA, NTP, or IARC.
Chronic	No information available

12. ECOLOGICAL INFORMATION

Aquatic toxicity

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Parameter	Result
96 hr LC ₅₀ , Pimephales promelas	5,000 mg/L
48 hr LC ₅₀ , Oncorhynchus mykiss	>3,440 mg/L
96 hr NOEC, Oncorhynchus mykiss	5,300 mg/L
72 hr LC ₅₀ , Leuciscus idus	>2,000 mg/L
96 hr LC ₅₀ , Danio rerio	>1,042 mg/L
48 hr EC ₅₀ , Daphnia magna	2,070 mg/L
48 hr EC ₅₀ , Ceriodaphnia dubia.	1,190 mg/L
21 day EC ₅₀ , Daphnia magna	>1,071 mg/L (ACR=1.93)
21 day LOEC, Daphnia magna	329 mg/L (ACR=6.291)
21 day NOEC, Daphnia magna	104 mg/L (ACR=19.9)
28 day Ready biodegradability (OECD 301D)	0%
28 day Inherent biodegradability (OECD 302A)	30-40%
Partition coefficient	-1.36 (calculated); low potential

Persistence Not readily biodegradable

Bioaccumulative potential No information available

Mobility No information available

13. DISPOSAL CONSIDERATIONS

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

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

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number UN3265

Proper shipping name Corrosive liquid, acidic, organic, n.o.s. (contains 2-Phosphono-1,2,4-butanetricarboxylic acid)

Primary hazard class/division 8

Secondary hazard None

Packing group III

Label Corrosive

15. REGULATORY INFORMATION

OSHA Hazard Communication Status Skin Corrosion, Category 1
Serious Eye Damage, Category 1

EPA Registration Number Not applicable

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

CERCLAEPA Hazardous Substances (40 CFR 302)

Chemical Name	Reportable Quantity (RQ)
2-Phosphono-1,2,4-butanetricarboxylic acid (PBTC)	None
Non-hazardous substances	None

SARA Title III (Sections 302, 311, 312, and 313)

Section 302 Extremely Hazardous Substances (40 CFR 355)

Chemical Name	CAS#	RQ	TPQ
None			

Section 311 and 312 Health and Physical Hazards

Immediate	Delayed	Fire	Pressure	Reactivity
Yes	No	No	No	No

Section 313 Toxic Chemicals (40 CFR 372)

Chemical Name	CAS Number	Percent by Weight
None		

16. OTHER INFORMATION

HMIS Ratings Health—2; Flammability—0; Reactivity—0

NFPA Ratings Health—2; Flammability—0; Reactivity—0;
Special Hazard—None

HMIS and NFPA Rating Scale Minimal—0; Slight—1; Moderate—2; Serious—3;
Severe—4

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