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**SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION**

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**Product ID:** REDUX-620  
**Product Use:** Industrial Water Treatment.

**Revision Date:** Jan 01, 2024  
**Supersedes Date:** Jun 15, 2022

**Manufacturer's Name:** Azure Water Services  
**Address:** 280 Callegari Drive West Haven, CT, US, 06516  
**Emergency Phone:** Chemtrec 800-424-9300, in US and Canada only

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**SECTION 2) HAZARDS IDENTIFICATION**

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**Classification**

Acute Toxicity, Oral - Category 4  
Serious Eye Damage/Irritation - Category 1  
Sensitization, Skin - Category 1  
Reproductive Toxicity - Category 2

**Pictograms****Signal Word**

**DANGER**

**Hazardous Statements - Health**

Harmful if swallowed  
May cause an allergic skin reaction.  
Causes serious eye damage.  
Suspected of damaging fertility or the unborn child.

**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understand.  
Avoid breathing mist/vapors.  
Wash thoroughly after handling.  
Wear protective gloves/protective clothing, eye protection/face protection.

**Precautionary Statements - Response**

If swallowed: call poison center/doctor if you feel unwell. Rinse mouth.  
If on skin: Wash with plenty of water. If skin rash occurs get medical attention.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Wash clothing before re-use.

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents/containers in accordance with local/regional/national/international regulations.

**Hazards Not Otherwise Classified (HNOC)**

None known.

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## SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS

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### Mixtures

Chemical name	CAS number	%
TETRAKIS (HYDROXYMETHYL) PHOSPHONIUM SULFATE	55566-30-8	20 - 40
2-Phosphono-1,2,4-butanetricarboxylic acid	37971-36-1	0.1 - 1.0
Other components below reportable levels		60 - 80

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## SECTION 4) FIRST-AID MEASURES

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### Inhalation

Move to fresh air. Call physician if symptoms develop or persist.

### Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

### Skin Contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

### Ingestion

Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

### Most Important Symptoms and Effects, Both acute and Delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash.

### Indication of Any Immediate Medical Attention and Special Treatment Needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

### General information

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

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## SECTION 5) FIRE-FIGHTING MEASURES

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### Suitable and Unsuitable Extinguishing Media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).  
Do not use water jet as an extinguisher, as this will spread the fire.

### Specific Hazards in Case of Fire

During fire, gases hazardous to health may be formed.

### Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full protective clothing must be worn in case of fire.

### Fire-Fighting Procedures

Use standard firefighting procedures and consider the hazards of other involved materials.  
Move containers from fire area if you can do so without risk.

### General fire hazards

No unusual fire or explosion hazards noted.

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## SECTION 6) ACCIDENTAL RELEASE MEASURES

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### Personal Precautions

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and Materials for Containment and Cleaning Up

This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

### Environmental Precautions

Avoid discharge into drains, water courses or onto the ground.

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## SECTION 7) HANDLING AND STORAGE

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### Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get this material in contact with eyes. Do not taste or swallow. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

### Conditions for Safe Storage, Including Any Incompatibilities

Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

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## SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION

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### Occupational Exposure Limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

### US. ACGIH Threshold Limit Values Components

	Type	Value
TETRAKIS (HYDROXYMETHYL) PHOSPHONIUM SULFATE (CAS 55566-30-8)	TWA	2 mg/m <sup>3</sup>

### Biological Limit Values

No biological exposure limits noted for the ingredient(s).

### Appropriate Engineering Controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin protection

Hand protection: Wear protective, chemical resistant gloves.

Other Skin Protection: Wear long sleeves, long pants, and chemical resistant clothing.

### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

### General hygiene considerations

Observe any medical surveillance requirements. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

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## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

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### Physical and Chemical Properties

Density	9.53 lb/gal
Specific Gravity	1.070- 1.150
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Appearance	Clear colorless to pale yellow liquid
pH	3.5 - 4.5
Odor Description	characteristic
Water Solubility	complete
Viscosity	N/A
Vapor Pressure	Similar to water (<1.0 mm Hg)
Vapor Density	N/A
Freezing Point	<40 °F (< 4.4 °C)
Boiling Point	>212 °F (>100 °C)
Evaporation Rate	1.0
Flammability	Will not burn
Percent Volatile	> 60% estimated

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## SECTION 10) STABILITY AND REACTIVITY

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### Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

### Chemical Stability

Material is stable under normal conditions.

### Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use.

### Conditions to avoid

Contact with incompatible materials.

### Incompatible materials

Strong oxidizing agents.

### Hazardous decomposition products

No hazardous decompositions products are known.

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## SECTION 11) TOXICOLOGICAL INFORMATION

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### Likely Routes of Exposure

Inhalation: Prolonged inhalation may be harmful.  
Skin contact: May cause an allergic skin reaction.  
Eye contact: Causes serious eye damage.  
Ingestion: Harmful if swallowed.

### Symptoms related to the physical , chemical , and toxicological characteristics

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash.

### Acute Toxicity

Oral: Rat LD50 = 2,150 mg/kg, harmful if swallowed.  
Dermal: Rat LD50 = 7,500 mg/kg, Prolonged skin contact may cause temporary irritation.  
Eye Irritation: Causes serious eye damage.

### Respiratory or skin sensitization

ACGIH Sensitization : TETRAKIS (HYDROXYMETHYL) PHOSOHONIUM SULFATE (CAS: 55566-30-8) : Dermal Sensitization

Respiratory sensitization : Not a respiratory sensitizer.  
Skin sensitization : May cause an allergic skin reaction.

### Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

### Carcinogenicity

No classifiable as to carcinogenicity to humans.

### IARC Monographs. Overall Evaluation of Carcinogenicity

TETRAKIS (HYDROXYMETHYL) PHOSOHONIUM SULFATE (CAS: 55566-30-8) 3 Not classifiable as to carcinogenicity to humans.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

### Reproductive Toxicity

Suspected of damaging fertility or the unborn child.

### Specific target organ toxicity - single exposure

Not classified.

### Specific target organ toxicity - repeated exposure

Not classified.

### Aspiration hazard

Not an aspiration hazard.

### Chronic effects

Prolonged inhalation may be harmful.

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## SECTION 12) ECOLOGICAL INFORMATION

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### Ecotoxicity

Invertebrate: LC50 Daphnia Magna 48hrs : 29.1 mg/L

Fish: Contact Manufacturer.

### Persistence and Degradability

No data available on the degradability of any ingredients in the mixture.

### Bio-accumulative Potential

Not data available.

### Mobility in Soil

Not data available.

### Other Adverse Effect

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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## SECTION 13) DISPOSAL CONSIDERATIONS

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### Disposal instruction

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional /national/international regulations.

### Local disposal regulations

Dispose in accordance with all applicable regulations.

### Hazardous waste codes

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

### Waste from residues/ unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

### Contaminated packing

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## SECTION 14) TRANSPORT INFORMATION

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For all transportation accidents, call CHEMTREC at 800/424-9300. All spills and leaks of this material must be handled in accordance with local, state, and federal regulations.

### U.S. DOT Information

Non-hazardous under 49-CFR 173. 154(d) Water treatment compound

### IATA Information

Not regulated as dangerous goods.

### IMDG Information

Not regulated as dangerous goods.

### Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code

Not regulated as dangerous goods.

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## SECTION 15) REGULATORY INFORMATION

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### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

### CERCLA Hazardous Substances List (40 CFR 302.4)

Not listed.

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### Toxic Substances Control Act (TSCA)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**SARA 302 Extremely hazardous substance** : Not listed.

**SARA 311-312 Hazardous chemical** : Yes.

Classified hazard categories : Acute toxicity (any route of exposure), Serious eye damage or eye irritation, Respiratory or skin sensitization, Reproductive toxicity

**SARA 313 (TRI Reporting)** : Not regulated.

### Other federal regulations

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List** : Not listed.

**Clean Air Act (CAA) Section 112(r) Accidental release Prevention (40 CFR 68.130)** : Not regulated.

**Safe Drinking Water act (SDWA)** : Not regulated.

### US State regulations

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**  
Not Listed

**US New Jersey Worker and Community Right-To-Know Act :**

TETRAKIS (HYDROXYMETHYL) PHOSPHONIUM SULFATE (CAS 55566-30-8)

**California Proposition 65**

California safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This Material is not known to contain any chemical currently listed as carcinogens or reproductive toxins.  
For more information go to [www.p65Warnings.ca.gov](http://www.p65Warnings.ca.gov)

## International Inventories

Country(s) or region	Inventory Name	On Inventory (yes/no)
United States & Puerto Rico	TSCA	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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## SECTION 16) OTHER INFORMATION

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### Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

### Additional Information

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**Issue Date:** June 15th, 2022

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