

**SAFETY DATA SHEET****WWT 1933 Water Treatment (s)****Section 1. Identification**

**GHS product identifier** : WWT 1933 Water Treatment (s)

**Other means of identification** : Not available.

**Product use** : Water Treatment

**Product type** : Liquid.

**Manufacturer** : Jacam Manufacturing 2013, L.L.C.  
P.O.Box 208, 1656 Ave. Q.  
Sterling, Kansas 67579

**Validation date** : 10/11/2017

**For Chemical Emergency  
Spill, Leak Fire, Exposure or  
Accident:** : **Call CHEMTREC Day or Night**  
**Within USA and Canada 800-424-9300**  
**Or +1 703-527-3887 (Collect calls accepted)**

**Direct all other calls to:**  
**Jacam Chemicals 2013, L.L.C. 620-278-3355**  
**Mon – Fri 8 a.m. to 5 p.m. (Closed on major holidays)**

**Supplier's details** : Jacam Chemicals 2013, L.L.C.  
P.O. Box 96, 205 S. Broadway  
Sterling, Kansas 67579

**Section 2. Hazards identification**

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 3  
ACUTE TOXICITY (oral) - Category 4  
ACUTE TOXICITY (dermal) - Category 4  
SKIN IRRITATION - Category 2  
SERIOUS EYE DAMAGE - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), kidneys) - Category 2

## Section 2. Hazards identification

### GHS label elements

#### Hazard pictograms



#### Signal word

: Danger

#### Hazard statements

: H226 - Flammable liquid and vapor.  
 H302 + H312 - Harmful if swallowed or in contact with skin.  
 H318 - Causes serious eye damage.  
 H315 - Causes skin irritation.  
 H373 - May cause damage to organs through prolonged or repeated exposure.  
 (central nervous system (CNS), kidneys)

### Precautionary statements

#### General

: P103 - Read label before use.  
 P102 - Keep out of reach of children.  
 P101 - If medical advice is needed, have product container or label at hand.

#### Prevention

: P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.  
 P242 - Use only non-sparking tools.  
 P243 - Take precautionary measures against static discharge.  
 P233 - Keep container tightly closed.  
 P260 - Do not breathe vapor.  
 P270 - Do not eat, drink or smoke when using this product.  
 P264 - Wash hands thoroughly after handling.

#### Response

: P314 - Obtain medical attention if you feel unwell.  
 P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.  
 P332 + P313 - If skin irritation occurs: Obtain medical attention.  
 P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.  
 P370 - In Case of Fire: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

#### Storage

: P403 - Store in a well-ventilated place.  
 P235 - Keep cool.

#### Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

#### Hazards not otherwise classified

: None known.

#### Routes of entry

: Dermal contact. Eye contact. Inhalation. Ingestion.  
 INGESTION: Although not a normal route of entry, ingestion is expected to be harmful. DO NOT TAKE INTERNALLY. FOR INDUSTRIAL USE ONLY.

## Section 2. Hazards identification

**Target organs** : Contains material which may cause damage to the following organs: blood, kidneys, liver, heart, spleen, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture  
**Other means of identification** : Not available.

### CAS number/other identifiers

**CAS number** : Not applicable.

Ingredient name	%	CAS number
tetrakis(hydroxymethyl)phosphonium chloride	10 - 30	124-64-1
Ethylene Glycol	10 - 30	107-21-1
Isopropanol	1 - 5	67-63-0
Nonylphenol ethoxylated	1 - 5	127087-87-0

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

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : If irritation persists, obtain medical attention. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : If irritation persists, obtain medical attention. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : If irritation persists, obtain medical attention. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## Section 4. First aid measures

- Ingestion** : If irritation persists, obtain medical attention. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : Harmful in contact with skin. Causes skin irritation.  
**Ingestion** : Harmful if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
 pain  
 watering  
 redness  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
 pain or irritation  
 redness  
**Ingestion** : Adverse symptoms may include the following:  
 stomach pains

#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Isopropanol	Category 3	Not applicable.	Narcotic effects

#### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Ethylene Glycol	Category 2	Oral	central nervous system (CNS) and kidneys

#### Aspiration hazard

Name	Result
Not available.	

### Indication of immediate medical attention and special treatment needed, if necessary

## Section 4. First aid measures

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

- Additional Vapor Statement** : Not available.  
Not available.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
phosphorus oxides  
halogenated compounds

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

## Section 6. Accidental release measures

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
tetrakis(hydroxymethyl)phosphonium chloride	<b>ACGIH TLV (United States, 4/2014). Skin sensitizer.</b> TWA: 2 mg/m <sup>3</sup> 8 hours.
Ethylene Glycol	<b>ACGIH TLV (United States, 4/2014).</b> C: 100 mg/m <sup>3</sup> Form: Aerosol <b>OSHA PEL 1989 (United States, 3/1989).</b> CEIL: 50 ppm CEIL: 125 mg/m <sup>3</sup>
Isopropanol	<b>ACGIH TLV (United States, 4/2014).</b> TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes. <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 400 ppm 8 hours. TWA: 980 mg/m <sup>3</sup> 8 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m <sup>3</sup> 15 minutes. <b>NIOSH REL (United States, 10/2013).</b> TWA: 400 ppm 10 hours. TWA: 980 mg/m <sup>3</sup> 10 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m <sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 2/2013).</b> TWA: 400 ppm 8 hours. TWA: 980 mg/m <sup>3</sup> 8 hours.

#### Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures


- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

#### Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

#### Skin protection

## Section 8. Exposure controls/personal protection

<b>Hand protection</b>	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
<b>Body protection</b>	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
<b>Other skin protection</b>	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Respiratory protection</b>	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
<b>Personal protective equipment (Pictograms)</b>	: 

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Colorless.
<b>Odor</b>	: Solvent
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: 3 to 4
<b>Melting point</b>	: -40°C (-40°F)
<b>Boiling point</b>	: Not available.
<b>Flash point</b>	: Closed cup: 24.389°C (75.9°F) [Pensky-Martens.]
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Flammable in the presence of the following materials or conditions: open flames,
<b>Lower and upper explosive (flammable) limits</b>	: sparks and static discharge and heat. Not available.
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: >1 [Air = 1]
<b>Relative density</b>	: 1.09 to 1.13
<b>Density</b>	: 8.84 to 9.18 (lbs/gal)
<b>Solubility</b>	: Easily soluble in the following materials: cold water.
<b>Partition coefficient: n-octanol/ water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.

## Section 9. Physical and chemical properties

**Viscosity** : Not available.

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Heat, sparks, flame, static electricity, all sources of ignition and contact with incompatible materials.

**Incompatible materials** : Reactive or incompatible with the following materials:  
oxidizing materials

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
tetrakis(hydroxymethyl) phosphonium chloride	LD50 Oral	Rat	161 mg/kg	-
Ethylene Glycol	LD50 Oral	Rat	4700 mg/kg	-
Isopropanol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Nonylphenol ethoxylated	LD50 Dermal	Rabbit	2500 mg/kg	-
	LD50 Oral	Rat	1310 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ethylene Glycol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	1 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	6 hours 1440 milligrams	-
	Skin - Mild irritant	Rabbit	-	555 milligrams	-
Isopropanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Nonylphenol ethoxylated	Skin - Moderate irritant	Rat	-	24 hours	3 days
	Eyes - Cornea opacity	Rabbit	4	-	-

## Section 11. Toxicological information

### Sensitization

Product/ingredient name	Route of exposure	Species	Result
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Not available.

### Mutagenicity

Product/ingredient name	Test	Experiment	Result
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Not available.

### Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
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Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
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tetrakis(hydroxymethyl)phosphonium chloride	-	3	-
Isopropanol	-	3	-

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
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Not available.

### Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
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Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
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Isopropanol	Category 3	Not applicable.	Narcotic effects
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### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
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Ethylene Glycol	Category 2	Oral	central nervous system (CNS) and kidneys
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### Aspiration hazard

Name	Result
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Not available.

**Information on the likely ToxKinetics - routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact** : Causes serious eye damage.

## Section 11. Toxicological information

- Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : Harmful in contact with skin. Causes skin irritation.  
**Ingestion** : Harmful if swallowed.

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

- Eye contact** : Adverse symptoms may include the following:  
 pain  
 watering  
 redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
 pain or irritation  
 redness
- Ingestion** : Adverse symptoms may include the following:  
 stomach pains

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	451.7 mg/kg
Dermal	1098.1 mg/kg

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Ethylene Glycol	Acute LC50 100000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 10000000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 8050000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Isopropanol	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1400000 µg/l	Fish - Gambusia affinis	96 hours

**Conclusion/Summary** : Not available.

### Persistence and degradability

Not available.

### Product/ingredient name

Not available.

### Product/ingredient name

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
tetrakis(hydroxymethyl)phosphonium chloride	-9.77	-	low
Ethylene Glycol	-1.36	-	low
Isopropanol	0.05	-	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly.

## Section 13. Disposal considerations

internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

Regulatory information	UN/NA Number	Proper shipping name	Hazard Class(es)	PG*
DOT Classification			PG* : Packing group	
	UN1993	FLAMMABLE LIQUID, N.O.S. (Isopropanol) RQ (Ethylene Glycol)	3	III

Additional information

Emergency Response Guide (ERG): 128

### Reportable quantity

19623.2 lbs / 8908.9 kg [2120.3 gal / 8026.1 L]

Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

### Label



### TDG Classification

UN1993	FLAMMABLE LIQUID, N.O.S. (Isopropanol). Marine pollutant (Ammonium chloride)	3	III
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Additional information

Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).

The marine pollutant mark is not required when transported by road or rail.

### Label



### IMDG Class

UN1993	FLAMMABLE LIQUID, N.O.S. (Isopropanol). Marine pollutant (Tetrakis Hydroxymethyl Phosphonium Sulfate)	3	III
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Marine pollutant notes: : Not available.

## Section 14. Transport information

### Additional information

The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

### Label



### IATA-DGR Class

UN1993	FLAMMABLE LIQUID, N.O.S. (Isopropanol)	3	III
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### Additional information

The environmentally hazardous substance mark may appear if required by other transportation regulations.

### Label



## Section 15. Regulatory information

### U.S. Federal regulations

: TSCA 8(a) PAIR: Proprietary  
 TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
 All components are listed or exempted.  
 Clean Water Act (CWA) 311: Ammonium chloride

Clean Air Act Section 112 : Listed  
 (b) Hazardous Air  
 Pollutants (HAPs)

Clean Air Act Section 602 : Not listed  
 Class I Substances

Clean Air Act Section 602 : Not listed  
 Class II Substances

DEA List I Chemicals : Not listed  
 (Precursor Chemicals)

DEA List II Chemicals : Not listed  
 (Essential Chemicals)

### SARA 302/304

### Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Ethylene Glycol	10 - 30	Yes.	10000	1061.4	-	-

SARA 304 RQ : Not applicable.

## Section 15. Regulatory information

### SARA 311/312

**Classification** : Fire hazard  
 Immediate (acute) health hazard  
 Delayed (chronic) health hazard

### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Tetrakis Hydroxymethyl Phosphonium Sulfate	10 - 30	No.	No.	No.	Yes.	No.
Isopropanol	5 - 10	Yes.	No.	No.	Yes.	Yes.
Proprietary	1 - 5	No.	No.	No.	Yes.	No.

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	Ethylene Glycol	107-21-1	10 - 30
	Isopropanol	67-63-0	1 - 5
<b>Supplier notification</b>	Ethylene Glycol	107-21-1	10 - 30
	Isopropanol	67-63-0	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

**Massachusetts** : The following components are listed: ISOPROPYL ALCOHOL; ETHYLENE GLYCOL  
**New York** : The following components are listed: Ethylene glycol  
**New Jersey** : The following components are listed: ISOPROPYL ALCOHOL; 2-PROPANOL; TETRAKIS (HYDROXYMETHYL) PHOSPHONIUM CHLORIDE; PHOSPHONIUM, TETRAKIS(HYDROXYMETHYL)-, CHLORIDE (1:1); ETHYLENE GLYCOL; 1, 2-ETHANEDIOL  
**Pennsylvania** : The following components are listed: 2-PROPANOL; 1,2-ETHANEDIOL

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Canadian lists

**Canadian NPRI (Pollution Release)** : The following components are listed: Isopropyl alcohol; Nonylphenol and its ethoxylates; Ethylene glycol

## Section 15. Regulatory information

<b>CEPA Toxic substances</b>	: The following components are listed: Nonylphenol and its ethoxylates
<b>Canada inventory-DSL / NDSL</b>	: All components are listed or exempted.
<b><u>International lists</u></b>	
<b><u>National inventory</u></b>	
<b>Australia</b>	: Not determined.
<b>Canada</b>	: All components are listed or exempted.
<b>China</b>	: All components are listed or exempted.
<b>Europe</b>	: Not determined.
<b>Japan</b>	: <b>Japan inventory (ENCS):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: Not determined.

## Section 16. Other information

### National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**Normal Package Size(s):** Ball: 2" Ball 50/Cooler; 4" Ball 12/Cooler  
 Dry Product: 50 Lbs/Box  
 Liquid: 5 Gallon/55 Gallon/Bulk  
 Pellets: 30 Lbs/Cooler; 24 Lbs/Pail  
 Stix: 1 1/4": 50 Each/Cooler

### History

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## Section 16. Other information

### Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

### References

- : Not available.

▣ Indicates information that has changed from previously issued version.

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