

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : WAW-1927

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Smart Chemical Solutions, LLC
3505 Olsen Blvd
Suite 201
Amarillo, TX 79109
T (806) 367-8031

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 1	H319	Causes serious eye irritation
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Full text of H statements : see section 16		

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning

Hazard statements (GHS US) : H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

Precautionary statements (GHS US) :

- P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.
- P264 - Wash hands, forearms and face thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P271 - Use only outdoors or in a well-ventilated area.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 - If on skin: Wash with plenty of water.
- P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 - Immediately call a poison center or doctor.
- P312 - Call a poison center or doctor if you feel unwell.

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P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

5.78% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution	CAS-No.: 55566-30-8	10 – 20	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Isopropanol	CAS-No.: 67-63-0	1 – 10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : May cause an allergic skin reaction.

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Symptoms/effects after eye contact : Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

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Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)

USA - ACGIH - Occupational Exposure Limits

Local name	Tetrakis (hydroxymethyl) phosphonium sulfate
ACGIH OEL TWA	2 mg/m ³
Remark (ACGIH)	TLV® Basis: Liver dam. Notations: DSEN; A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2022

Isopropanol (67-63-0)

USA - ACGIH - Occupational Exposure Limits

Local name	2-Propanol
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	400 ppm
Remark (ACGIH)	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2022

USA - ACGIH - Biological Exposure Indices

Local name	2-PROPANOL
BEI	40 mg/l Parameter: Acetone - Medium: urine - Sampling time: End of shift at end of workweek - Notations: B, Ns
Regulatory reference	ACGIH 2022

USA - OSHA - Occupational Exposure Limits

Local name	Isopropyl alcohol
OSHA PEL TWA [1]	980 mg/m ³
OSHA PEL TWA [2]	400 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

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8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Mixture contains one or more component(s) which have the following colour(s): Colourless
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Mild odour Alcohol odour Stuffy odour
Odor threshold	: No data available
pH	: 3 – 3.3
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Harmful if inhaled.

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ATE US (dust, mist)	3.773 mg/l/4h
Unknown acute toxicity (GHS US)	5.78% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)

LD50 oral rat	575 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 1500 mg/kg body weight Animal: rat, Guideline: EPA OPP 81-2 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: other:
LC50 Inhalation - Rat	0.59 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
LC50 Inhalation - Rat (Dust/Mist)	0.591 mg/l Source: ECHA
ATE US (oral)	575 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	0.59 mg/l/4h
ATE US (dust, mist)	0.59 mg/l/4h

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Isopropanol (67-63-0)	
LD50 oral rat	5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	16400 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat [ppm]	> 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (oral)	5840 mg/kg body weight
ATE US (dermal)	12890400 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: 3 – 3.3

Isopropanol (67-63-0)	
pH	No data available in the literature

Serious eye damage/irritation : Causes serious eye damage.
pH: 3 – 3.3

Isopropanol (67-63-0)	
pH	No data available in the literature

Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
IARC group	3 - Not classifiable

Isopropanol (67-63-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

Isopropanol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
LOAEL (oral,rat,90 days)	22.65 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEL (oral,rat,90 days)	4.53 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Isopropanol (67-63-0)	
Viscosity, kinematic	No data available in the literature

Symptoms/effects after skin contact : May cause an allergic skin reaction.
Symptoms/effects after eye contact : Serious damage to eyes.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)

LC50 - Fish [1]	0.45 mg/l Source: ECHA
EC50 - Crustacea [1]	18 mg/l Source: ECOTOX
LC50 - Fish [2]	71 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [2]	11.3 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	0.652 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	0.492 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	0.652 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

Isopropanol (67-63-0)

LC50 - Fish [1]	9640 – 10000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)
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12.2. Persistence and degradability

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)

Persistence and degradability	Not readily biodegradable in water.
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Isopropanol (67-63-0)

Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.19 g O ₂ /g substance
Chemical oxygen demand (COD)	2.23 g O ₂ /g substance
ThOD	2.4 g O ₂ /g substance

12.3. Bioaccumulative potential

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)

Partition coefficient n-octanol/water (Log Pow)	-9.8 (QSAR, KOWWIN)
Bioaccumulative potential	Not bioaccumulative.

Isopropanol (67-63-0)

Partition coefficient n-octanol/water (Log Pow)	0.05 (Weight of evidence approach, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)

Mobility in soil	0 Source: EPISUITE
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Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.18 (log Koc, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

Isopropanol (67-63-0)

Surface tension	No data available (test not performed)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.185 – 0.541 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

DOT	IMDG	IATA
14.1. UN number		
Not regulated	Not applicable	Not applicable
14.2. Proper Shipping Name		
Not regulated	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not regulated	Not applicable	Not applicable
14.4. Packing group		
Not regulated	Not applicable	Not applicable
14.5. Environmental hazards		
Not regulated	Not applicable	Not applicable
No supplementary information available		

14.6. Special precautions for user

DOT
Not regulated

IMDG
Not applicable

IATA
Not applicable

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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution	CAS-No. 55566-30-8	10 – 20%
Isopropanol	CAS-No. 67-63-0	1 – 10%

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases	
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

Safety Data Sheet (SDS), USA