

1. IDENTIFICATION

Product Identifier

Product Name

IRON SULFIDE DISSOLVER

Chemical Name

Tetrakis(hydroxymethyl)phosphonium sulfate solution

Recommended use of the chemical and restrictions on use

Recommended use

Iron sulfide scale mitigation

Restrictions on use

For industrial use only

Supplier details

West Penetone Inc.

11411-160 Street

Edmonton, AB,

T5M3T7

Tel: 780-454-3919

Emergency Telephone Number

Main office – (780)-454-3919, 8:00 AM to 4:30 PM MST

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity, oral	Category 4
Acute toxicity, inhalation – vapors, mist	Category 3
Serious eye damage/eye irritation	Category 1
Skin sensitizer	Category 1
Reproductive toxicity	Category 2

Hazardous to the aquatic environment, acute hazard	Category 1
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Label Elements

DANGER

Hazard Statements

Harmful if swallowed.

Toxic if inhaled.

Causes serious eye damage.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

Very toxic to aquatic life.



Precautionary Statements - Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response

IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: get medical advice/attention. Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician.

IF exposed or concerned: Get medical advice/attention.

Collect spillage.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant according to local, provincial/federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
Bis[tetrakis(hydroxymethyl)phosphonium] sulfate	55566-30-8	60-100

* The actual concentrations have been withheld as a trade secret

4. FIRST AID MEASURES**Ingestion**

Do not induce vomiting. Drink 1 or 2 glasses of water. Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with soap and water/shower. Wash contaminated clothing before reuse.

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed

Contact with eyes may cause serious damage leading to irritation, discomfort or pain, excess blinking and tear production with marked excess redness and swelling of the conjunctiva, and permanent corneal injury. Contact with skin may cause an allergic skin reaction with prolonged or repeated exposure. Inhalation of mist/vapors/spray may cause respiratory tract irritation leading to a temporary burning sensation of the nose and throat, coughing, and difficulty breathing. Excessive exposure may aggravate preexisting asthma and other respiratory disorders. Ingestion may cause irritation or a burning sensation of the mouth and throat, nausea, vomiting, abdominal pain and damage to the gastrointestinal tract. See Section 2 for possible delayed effects.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed including oxides of carbon, phosphorous, and sulfur and other toxic or irritating compounds.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Material supports combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Use personal protective equipment. Keep unnecessary and unprotected personnel from entering the area.

Environmental Precautions

Avoid discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Contain and solidify with inert absorbent material. Keep in suitable, closed containers for disposal. For large spills, stop flow of material, prevent product from entering drains, and pump off product where this is without risk and possible. Proceed as above.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling

Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated contact with skin. Avoid inhalation of mist/vapors/spray. Keep containers closed when not in use. Use recommended personal protective equipment.

Conditions for safe storage, including any incompatibilities

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place away from incompatible materials.

Incompatible Materials

Strong oxidizing, reducing or alkaline materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Only constituents with exposure limits are listed. Any constituent not listed has no known exposure limit.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Bis[tetrakis(hydroxymethyl)phosphonium] sulfate 55566-30-8	TWA: 2 mg/m ³	Not available	Not available

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas. Eyewash facilities and emergency shower must be made available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face Protection

Safety glasses with side shields or goggles or face shield with high risk of splashing.

Skin and body protection

Wear protective gloves and protective clothing.

Respiratory Protection

Respiratory protection if ventilation is inadequate or in case of vapor/mist/aerosol release.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash soiled clothing immediately.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE :

Clear, colorless liquid

ODOR :

Acidic

ODOR THRESHOLD :

Not applicable

pH :

3.0-5.0

MELTING POINT / FREEZING POINT :

VAPOR PRESSURE, mm Hg AT 25°C (68°F) :

12.7

VAPOR DENSITY (Air = 1) :

>1

RELATIVE DENSITY AT 20°C (68°F) :

1.370-1.410

SOLUBILITY IN WATER :

Complete

PARTITION COEFFICIENT, N-OCTANOL/WATER :

IRON SULFIDE DISSOLVER SDS GHS

Approx. -43°C (-45°F)

BOILING POINT/BOILING RANGE :

Approx. 108.5°C (227°F)

FLASH POINT :

96°C / 205°F (TCC)

EVAPORATION RATE, water = 1 :

1

FLAMMABILITY (SOLID, GAS) :

Not applicable

-20.39 (Log K_{ow})**AUTO-IGNITION TEMPERATURE :**

279°C (534°F)

DECOMPOSITION TEMPERATURE :

≥ 160°C (320°F)

VISCOSITY :

39 mPs @ 20°C (68°F) - dynamic

FLAMMABLE LIMITS :**UPPER :** Not applicable **LOWER :** Not applicable**10. STABILITY AND REACTIVITY****Reactivity**

Not reactive under normal conditions.

Conditions to Avoid

Store away from incompatible materials. Temperatures above 130°C (266°F). High pH.

Chemical Stability

Stable under normal conditions.

Possibility of hazardous reactions

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

Incompatible Materials

Strong oxidizing, reducing or alkaline materials.

Hazardous decomposition products

Oxides of carbon, phosphorous, and sulfur.

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Bis[tetrakis(hydroxymethyl)phosphonium] sulfate 55566-30-8	248-575 mg/kg (rat)	>2000 mg/kg (rat)	5.55 mg/L – 4 h, vapor (rat) 0.59 mg/L – 4 h mist (rat)

Information on likely sources of exposure**Ingestion**

May be harmful if swallowed and irritate gastrointestinal tract.

Skin corrosion/irritation

Brief contact essentially nonirritating. Repeated contact may cause sensitization.

Inhalation

Spray mist may cause irritation or burns to respiratory tract.

Serious eye damage/irritation

May cause severe eye irritation and permanent corneal injury.

Delayed and immediate effects and also chronic effects from short and long-term exposure**Respiratory or skin sensitization**

Has caused allergic skin reactions when tested in guinea pigs.

Germ cell mutagenicity

No information available.

Carcinogenicity

None known.

Reproductive toxicity

Has caused birth defects in laboratory animals.

STOT - single exposure

No information available.

STOT-repeated exposure

No information available.

Aspiration Hazard

None known.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms include eye damage. May cause asthma-like symptoms. Respiratory symptoms, including pulmonary edema, may be delayed. See Section 2 for delayed effects.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Chemical Name	Fish	Waterflea	Algae
Bis[tetrakis(hydroxymethyl)phosphonium] sulfate 55566-30-8	94-119 mg/L: 96 h oncorhynchus mykiss LC50	15-19.4 mg/L: 48 h daphnia magna EC50	0.20 mg/L: 96 h green algae EC50

Persistence and degradability

Expected to be readily biodegradable and not persistent.

Bioaccumulative potential

Significant accumulation in organisms is not to be expected.

Mobility in soilLog K_{oc} = 2.2**Other adverse effects**

Do not release untreated in natural waters.

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method**

Dispose of in accordance with local regulations.

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

UN Number: 2810
UN Proper Shipping Name: Toxic Liquid, Organic, N.O.S. (Bis[tetrakis(hydroxymethyl)phosphonium] sulfate)
Transport Hazard Class(es):
Class: TDG: 6.1
US DOT: 6.1
IMDG: 6.1
Label(s): 6.1
Packing Group: III
Marine Pollutant: No

Special precautions for user: None established

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not determined

15. REGULATORY INFORMATION

Canada (DSL/NDSL)

All ingredients contained in this product are in compliance with the Canadian Environmental Protection Act and are listed on the DSL or are exempt.

United States (TSCA)

All ingredients contained in this product are listed on the TSCA inventory or are exempt.

HMIS Information:

Health: 3
Flammability: 1
Reactivity: 0

16. OTHER INFORMATION**Preparation Date**

13 October, 2016

Revision Date

9 July 2025

Revision Note**Revision 3** - Modifications to Section 1**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS