

Safety Data Sheet

According to Regulation (EC) NO 1907/2006 (REACH)



Trade name: 1,3,6,8-Pyrenetetrasulfonic Acid Tetrasodium Salt (PTSA), 98%

Product No: 20303

Version: 1.3 / EN

Revision Date: March 22, 2022

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **1,3,6,8-Pyrenetetrasulfonic Acid Tetrasodium Salt (PTSA), 98%**

Product Use: Miscellaneous Water Treatment

PYXIS LAB, INC.

1729 Majestic Dr. Suite 5,
Lafayette CO, 80026, USA

www.pyxis-lab.com

Telephone: 866-203-8397

REACH Number: 01-2120801610-72-0001

CAS Number: 59572-10-0

Emergency Phone Number

CHEMTREC

1-800-262-8200

2. HAZARDS IDENTIFICATION

GHS Ratings:

Skin corrosive 2

Eye corrosive 2A

Reversible adverse effects in dermal tissue, Draize score:
>= .3 < 4.0 or persistent inflammation

Eye irritant: Subcategory 2A, Reversible in 21 days.

GSH Hazards

H303 May be harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation

GSH Precautions

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective
Clothing/ eye protection/ face protection.

P312 Call a POISON CENTER or doctor/ Physician, if you feel unwell.

P321 Specific treatment (see first aid instructions on SDS).

P362 Take off contaminated clothing and wash before reuse.

P302+P352 IF ON SKIN: Wash with soap and water.

P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes.
Remove contact lenses if present and easy to do
– continue rinsing.

P332+P313 Get medical advice/ attention

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Signal Word: Warning



3. COMPOSITION/ INFORMATION ON INGREDIENTS

Component	CAS Number	Molecular Weight	Concentration
PTSA	59572-10-0	610.43	98%

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air and keep a rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Eye Contact:

Rinse the eye with water immediately. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention promptly if symptoms occur after washing.

Skin Contact:

Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

Ingestion:

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Notes to Physician:

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flash Point: N/A

LEL:

UEL:

Flammability of the Product:

Not Flammable.

Extinguishing Media:

Foam, Dry powder, Water spray, Carbon dioxide (CO₂)

Special hazards arising from the substance or mixture:

Carbon oxides, Sulfur oxides, Sodium oxides

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors.

Fire Fighting Methods:

Standard procedure for chemical fires. Cool containers / tanks with water spray.

Special protective equipment for fire-fighters:

In the event of fire, wear self-contained breathing apparatus. Splash-proof protective suit.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid contact with skin and eyes. Wear personal protective equipment (see section 8).

Environmental precautions:

Should not be released into the environment. Stop the leakage if possible.

Methods for cleaning up:

In case of large spillage, contain and collect into suitable containers for disposal. Must be disposed of in accordance with local and national regulations. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling:

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Wear appropriate personal protective equipment when handling this product. Do not get in eyes or on skin.

Storage:

Store at room temperature in the original container. Keep tightly closed. Avoid freezing.

Materials for packaging:

Suitable material: original container, plastic (PE, PP, PVC), Stainless steel.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Chemical Name	CAS Number	OSHA Exposure Limits	ACGIH Exposure Limits
PTSA 98%	59572-10-0	NO DATA	NO DATA

Engineering Controls:

Ensure adequate ventilation.

Occupational exposure controls:

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Wash hands before breaks and immediately after handling the product.

Control of environmental exposure:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Respiratory protection:

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection:

Glove material: Nitrile rubber disposable gloves.

Eye protection:

Safety glasses with side-shields. Maintain eyewash fountain in work area.

Skin and body protection:

Impervious clothing. Maintain safety shower in work area.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Odor: Mild	Vapor Pressure: ND
Odor threshold: ND	Melting point: ND
Boiling range: ND	Solubility: ND
Evaporation Limits: ND	Flash point: ND
Explosive Limits: ND	Flammability: ND
Autoignition temperature: ND	Partition coefficient (n-octanol/ water): ND
Vapor Density: ND	Decomposition temperature: ND
Appearance: Yellow Powder/ No Odor	Grams VOC less water: ND

10. TABILITY AND REACTIVITY

Chemical stability:

Stable under recommended storage conditions.

Incompatibility materials:

Oxidizing agents, Acids, Bases

Hazardous reactions:

Hazardous polymerisation does not occur.

Hazardous decomposition products:

Thermal decomposition can lead to release of irritating gases and vapors

11. TOXICOLOGIAL INFORMATION

Information on toxicological effects.

Oral (Animal): LD50: Greater than 10,000 mg/kg toxic to Rat (100% PTSA)

Dermal (animal): NO DATA AVAILABLE.

Effects to eyes (Animal): NO DATA AVAILABLE.

Skin irritation (Animal): Slight irritant (Rabbit) (100% PTSA)

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Not classified

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: Not classified

Symptoms/injuries after inhalation: None expected

Symptoms/injuries after eye contact: None expected

Symptoms/injuries after ingestion: Ingestion may cause gastrointestinal upset

Additional Information: RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Avoid contaminating waterways.

Toxicity: NO DATA AVAILABLE.

Persistence and degradability:

The ultimate decomposition product of this material is CO₂, CO & oxides of sulfur. The degradation study at various time interval is not available. However, we can conclude as follows: The referred product is sodium salt and hence is very stable under normal conditions of temp. The product does not decompose over the years, so for 12 months it does not decompose. Under extreme conditions of very high temperatures, it would decompose initially to pyrene and sulfuric acid and thereafter to CO₂, CO and sulfur oxides.

Bioaccumulative potential: No Data Available

Mobility in soil: No Data Available

Results of PBT and vPvB assessment:

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: No additional information available

13. AQUATIC TOXICOLOGY INFORMATION

Daphnids Test Results Conclusion

Conclusions:

The final Acute Aquatic Toxicity to Daphnids (48h EC₅₀) predicted for Tetrasodium 1,3,6,8-pyrenetetrasulfonate assigned by the study investigator: 1011.92 mg/L.

Klimisch score assigned by the study investigator for the final prediction: K2

Executive summary:

Introduction. Multiple Quantitative Structure Activity Relationship (QSAR) models were used to predict the Acute Aquatic Toxicity to Daphnids (48h EC₅₀) of the test item Tetrasodium 1,3,6,8-pyrenetetrasulfonate. These QSAR models have been designed to be used for regulatory purposes and based on the QSAR results, this report predicts the consensus endpoint value which would be expected when testing the substance under experimental conditions in a laboratory following the OECD Guideline for Testing of Chemicals No. 202, "Daphnia sp., Acute Immobilisation Test".

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Fresh Water Algae & Cyanobacteria Test Results Conclusion

Conclusions:

Based on the methodology discussed in section 2 of this report and combining the results derived from individual models discussed earlier in this section:

The final Acute Aquatic Toxicity to Algae (72h ErC50) predicted for Tetrasodium 1,3,6,8-pyrenetetrasulfonate assigned by the study investigator: 84687.83 mg/L

Klimisch score assigned by the study investigator for the final prediction: K2

Executive summary:

Introduction. Multiple Quantitative Structure Activity Relationship (QSAR) models were used to predict the Acute Aquatic Toxicity to Algae (72h ErC50) of the test item Tetrasodium 1,3,6,8-pyrenetetrasulfonate. These QSAR models have been designed to be used for regulatory purposes and based on the QSAR results, this report predicts the consensus endpoint value which would be expected when testing the substance under experimental conditions in a laboratory following the OECD Guideline for Testing of Chemicals No. 201, "Freshwater Alga and Cyanobacteria, Growth Inhibition Test"

14. DISPOSAL CONSIDERATIONS

Product:

Must be disposed of in accordance with local and national regulations. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging:

Must be disposed of in accordance with local and national regulations. Dispose of as unused product.

15. TRANSPORTATION INFORMATION

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
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DOT	Not Regulated, as it is not dangerous goods.			
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16. REGULATORY INFORMATION

SARA 302 Components:

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

Acute Health Hazard

Massachusetts Right to Know Components:

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components:

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New Jersey Right to Know Components:

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California Prop. 65 Components:

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

17. OTHER INFORMATION

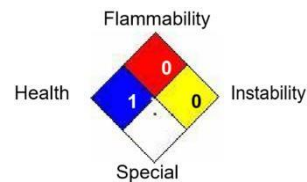
Hazardous Material Information System (HMIS)

National Fire Protection Association (NFPA)

HMIS & NFPA Hazard Rating Legend

*= Chronic Health Hazard

HEALTH	1	0 = INSIGNIFICANT
FLAMMABILITY	0	1 = SLIGHT
PHYSICAL HAZARD	0	2 = MODERATE
PERSONAL PROTECTION	B	3 = HIGH



Date Prepared: 3/22/2022

Disclaimer: All information, recommendations and suggestions appearing herein are based upon sources believed to be reliable: However, it is the user's responsibility to determine the safety, toxicity and suitability for its own use of this product. Pyxis Lab, Inc. does not assume any liability arising out of the use by others of this product.