



# SAFETY DATA SHEET

Revision Date 20-Dec-2025

## Revision Number 8

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

<b>Product Name</b>	Lead(II) perchlorate trihydrate
<b>Cat No. :</b>	AC447780000; AC447781000; AC447785000
<b>CAS No</b>	13453-62-8
<b>Synonyms</b>	Perchloric acid, lead(2+) salt, trihydrate.
<b>Recommended Use</b>	Laboratory chemicals.
<b>Uses advised against</b>	Food, drug, pesticide or biocidal product use.

## **Details of the supplier of the safety data sheet**

## Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

## Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

Oxidizing solids	Category 2
Acute oral toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Blood, Bone marrow, Kidney.	

## Label Elements

## Signal Word

Danger

**Hazard Statements**

May intensify fire; oxidizer  
May cause drowsiness or dizziness  
May cause cancer  
May damage the unborn child. Suspected of damaging fertility  
May cause damage to organs through prolonged or repeated exposure  
Harmful if swallowed or if inhaled

**Precautionary Statements****Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
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  
Do not breathe dust/fume/gas/mist/vapors/spray  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Keep away from clothing and other combustible materials  
Take any precaution to avoid mixing with combustibles  
Wear protective gloves/protective clothing/eye protection/face protection

**Response**

IF exposed or concerned: Get medical attention/advice

**Inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing

**Ingestion**

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

Rinse mouth

**Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

**Storage**

Store locked up

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

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Very toxic to aquatic life with long lasting effects

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200****Hazards resulting from a reaction with other chemicals under normal conditions of use**

Mixing this product with acid or ammonia releases chlorine or chloramine gas.

WARNING. Cancer - <https://www.p65warnings.ca.gov/>.

**3. Composition/information on Ingredients**

Component	CAS No	Weight %
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Tribasic lead perchlorate	13453-62-8	>95
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#### 4. First-aid measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	Get medical attention. Wash off immediately with plenty of water for at least 15 minutes.
<b>Inhalation</b>	Remove to fresh air. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If not breathing, give artificial respiration.
<b>Ingestion</b>	Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>Most important symptoms and effects</b>	No information available.
<b>Notes to Physician</b>	Treat symptomatically

#### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	No information available
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	No information available
<b>Explosion Limits</b>	No information available
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Oxidizing Properties</b>	Oxidizer
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

#### Specific Hazards Arising from the Chemical

Oxidizer: Contact with combustible/organic material may cause fire. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. May ignite combustibles (wood, paper, oil, clothing, etc.). Do not allow run-off from fire-fighting to enter drains or water courses.

#### Hazardous Combustion Products

lead oxides. Hydrogen chloride gas.

#### 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.

#### NFPA

Health  
2

Flammability  
0

Instability  
1

Physical hazards  
OX

#### 6. Accidental release measures

<b>Personal Precautions</b>	Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid dust formation.
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**Environmental Precautions**

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. Should not be released into the environment.

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal.

## 7. Handling and Storage

**Handling**

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Keep away from clothing and other combustible materials. Use only under a chemical fume hood. Wear personal protective equipment/face protection. Avoid dust formation.

**Storage.**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Do not store near combustible materials. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Finely powdered metals. Strong reducing agents. Combustible material.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Tribasic lead perchlorate	TWA: 0.05 mg/m <sup>3</sup>	-	IDLH: 100 mg/m <sup>3</sup> REL = 0.050 mg/m <sup>3</sup> (TWA)	TWA: 0.05 mg/m <sup>3</sup>

Legend

ACGIH - American Conference of Governmental Industrial Hygienists  
NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures**

Ensure that eyewash stations and safety showers are close to the workstation location. Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment****Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection**

Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

**Recommended Filter type:**

Particulates filter conforming to EN 143.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

**Appearance****Physical State**

Solid

**Color**

Beige

**Odor**

Odorless

<u>Odor Threshold</u>	No information available	<u>Remarks</u>	<u>• Method</u>
<u>Property</u>	<u>Values</u>		
Melting Point/Range	100 °C / 212 °F		
Softening Point	No data available		
Boiling Point/Range	No information available		
Flash Point	No information available		<b>Method</b> - No information available
Flammability (liquid)	Not applicable		
Flammability (solid,gas)	No information available		
Explosion Limits	No data available		
Autoignition Temperature	No data available		
Decomposition Temperature	No data available		
pH	3-5	5% aq.sol	
Viscosity	Not applicable		
Water Solubility	Soluble	Solid	
Solubility in other solvents	No information available		
Partition Coefficient (n-octanol/water)			
Vapor Pressure	No data available		
Density / Specific Gravity	2.600		
Bulk Density	No data available		
Vapor Density	Not applicable		
Particle characteristics	No data available	Solid	
<u>Other Information</u>			
Molecular Formula	Cl <sub>2</sub> O <sub>8</sub> Pb . 3 H <sub>2</sub> O		
Molecular Weight	460.14		
Oxidizing Properties	Oxidizer		
Evaporation Rate	Not applicable - Solid		

## 10. Stability and reactivity

<b>Reactive Hazard</b>	Yes
<b>Stability</b>	Hygroscopic. Oxidizer: Contact with combustible/organic material may cause fire.
<b>Conditions to Avoid</b>	Incompatible products. Combustible material. Exposure to moist air or water. Excess heat.
<b>Incompatible Materials</b>	Strong oxidizing agents, Finely powdered metals, Strong reducing agents, Combustible material
<b>Hazardous Decomposition Products</b>	lead oxides, Hydrogen chloride gas
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

### Information on expected route of exposure

<b>Inhalation</b>	Harmful by inhalation. May cause irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.
<b>Eyes</b>	May cause irritation.
<b>Skin</b>	Harmful in contact with skin. May cause irritation.

### Toxicology data for the components

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** No data available

**(c) serious eye damage/irritation;** No data available

**(d) respiratory or skin sensitization;**  
**Respiratory** No data available  
**Skin** No data available  
May cause sensitization by skin contact

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;**  
Possible cancer hazard. May cause cancer based on animal data

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Tribasic lead perchlorate	13453-62-8	Not listed	Reasonably Anticipated	A3	Not listed	Not listed

**(g) reproductive toxicity;** Category 1A

**Reproductive Effects** May cause harm to the unborn child. May impair fertility.  
**Developmental Effects** May cause harm to the unborn child. Contains ingredients that have suspected developmental hazards.

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** Category 2

**Target Organs** Blood, Kidney, Central nervous system (CNS), Reproductive System.

**(j) aspiration hazard;** Not applicable  
Solid

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Symptoms / effects,both acute and delayed** No information available.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

### Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

**Persistence and Degradability** based on information available. May persist

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

**DOT**

UN-No UN1470  
**Proper Shipping Name** LEAD PERCHLORATE, SOLID  
**Hazard Class** 5.1  
**Subsidiary Hazard Class** 6.1  
**Packing Group** II

**TDG**

UN-No UN1470  
**Proper Shipping Name** LEAD PERCHLORATE, SOLID  
**Hazard Class** 5.1  
**Subsidiary Hazard Class** 6.1  
**Packing Group** II

**IATA**

UN-No UN1470  
**Proper Shipping Name** LEAD PERCHLORATE, SOLID  
**Hazard Class** 5.1  
**Subsidiary Hazard Class** 6.1  
**Packing Group** II

**IMDG/IMO**

UN-No UN1470  
**Proper Shipping Name** LEAD PERCHLORATE, SOLID  
**Hazard Class** 5.1  
**Subsidiary Hazard Class** 6.1  
**Packing Group** II

### 15. Regulatory Information

**United States of America Inventory**

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Tribasic lead perchlorate	13453-62-8	-	-	-

**Legend:**

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b) - Notices of Export** Not applicable

**International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Tribasic lead perchlorate	13453-62-8	-	-	-	-	-	-	-	-	-

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

#### U.S. Federal Regulations

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. Note that PBT chemicals are not eligible for the de minimis exemption. For these chemicals, supplier notification limits are provided.

> 0 % = no low concentration cut-off set, supplier notification limit applies.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting thresholds
Tribasic lead perchlorate	13453-62-8	>95	-	RT = 100 lb

##### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

##### **CWA (Clean Water Act)**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Tribasic lead perchlorate	-	-	X	-

##### **Clean Air Act**

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Tribasic lead perchlorate	X		-

##### **OSHA - Occupational Safety and Health Administration**

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Tribasic lead perchlorate	30 µg/m <sup>3</sup> Action Level 50 µg/m <sup>3</sup> TWA	-

##### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

##### **California Proposition 65**

This product contains the following Proposition 65 chemicals.

Component	CAS No	California Prop. 65	Prop 65 NSRL	Category
Tribasic lead perchlorate	13453-62-8	Carcinogen	-	Carcinogen

##### **U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Tribasic lead perchlorate	-	X	X	X	X

##### **U.S. Department of Transportation**

Reportable Quantity (RQ): N  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

##### **U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

Other International Regulations

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH**

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Tribasic lead perchlorate	13453-62-8	-	Use restricted. See entry 30. (see link for restriction details) Use restricted. See entry 63. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details)	-

**REACH links**

<https://echa.europa.eu/substances-restricted-under-reach>

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Tribasic lead perchlorate	13453-62-8	Not applicable	Not applicable	Not applicable	Not applicable

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

**Other International Regulations**

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Tribasic lead perchlorate	13453-62-8	Not applicable	Not applicable	Not applicable	Annex I - Y31

**16. Other Information**

**Prepared By** Product stewardship (Regulatory Affairs)  
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**Revision Date** 20-Dec-2025  
**Print Date** 20-Dec-2025  
**Revision Summary** Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

**Disclaimer**

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

**End of SDS**