

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Lead oxide
Manufacturer	Sentury Reagents, Inc. 2515 Commerce Dr. Rock Hill, SC 29730
Telephone	803-327-6880
Fax	803-327-3872
Emergency Phone #	PERS: 800-633-8253
International Phone #	011-801-629-0667
Account	10613

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

#### OSHA Hazardous

Oxidizer, Carcinogen, Target Organ Effect, Toxic by inhalation., Harmful by ingestion., Teratogen, Reproductive hazard

#### Target Organs GHS

Blood, Kidney, Nerves., Female reproductive system., Male reproductive system.

#### Classification

Oxidizing solids (Category 2)  
Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 4)  
Reproductive toxicity (Category 1A)  
Acute aquatic toxicity (Category 1)

#### GH3 Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H272	May intensify fire; oxidiser.
H302 + H332	Harmful if swallowed or if inhaled
H360	May damage fertility or the unborn child.
H400	Very toxic to aquatic life.

Precautionary statement(s)

P201	Obtain special instructions before use.
P220	Keep/Store away from clothing/ combustible materials.
P273	Avoid release to the environment.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.

#### HMIS Classification

Health hazard:	2
Chronic Health Hazard:	*
Flammability:	0
Physical hazards:	2
Personal protection:	E

#### NFPA Rating

Health hazard:	2
Fire:	0
Reactivity Hazard:	2
Special hazard:	OX

## Potential Health Effects

<b>Inhalation</b>	Toxic if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.
<b>Ingestion</b>	Toxic if swallowed.

---

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms:	Lead oxide, red Lead(II,IV) oxide Minium
Formula:	O <sub>4</sub> Pb <sub>3</sub>
Molecular Weight:	685.6 g/mol

Component	Concentration
<b>Orange lead</b> Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)	90-100%
CAS-No.	1314-41-6
EC-No.	215-235-6
Index-No.	082-001-00-6

---

### 4. FIRST AID MEASURES

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

---

### 5. FIRE-FIGHTING MEASURES

#### Conditions of flammability

Not flammable or combustible.

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Lead oxides

#### Further information

Use water spray to cool unopened containers.

---

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### Environmental precautions

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

avoided.

**Methods and materials for containment and cleaning up**

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet- brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

---

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.  
Keep away from heat and sources of ignition.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Basis
Orange lead	1314-41-6	TWA	0.05 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Central Nervous System impairment Hematologic effects Peripheral Nervous System impairment Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans varies			
	See 1910.1025			
		TWA	0.05 mg/m3	USA. NIOSH Recommended Exposure Limits
	See Appendix C			

**Personal protective equipment**

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**

Form powder

Colour	no data available
<b>Safety data</b>	
pH	no data available
Melting/ freezing point	no data available
Boiling point	no data available
Flash point	not applicable
Ignition temp	no data available
Auto-ignition temp	no data available
Lower/Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol /water	no data available
Relative vapor density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation Rate	no data available

---

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

no data available

### Conditions to avoid

no data available

### Materials to avoid

Strong reducing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Lead oxides Other decomposition products - no data available

---

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**Oral LD50** no data available

**Inhalation** no data available

**LC50 Dermal** no data available

**LD50** no data available

### Other information on acute toxicity

LD50 Intraperitoneal - rat - 630 mg/kg

### Skin corrosion/irritation

no data available

### Serious eye damage/eye irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 2A - Group 2A: Probably carcinogenic to humans (Orange lead)  
2A - Group 2A: Probably carcinogenic to humans (Orange lead)

NTP: Reasonably anticipated to be a human carcinogenThe reference note has been added by TD based on the background information of the NTP. (Orange lead)

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

May cause reproductive disorders.

### Teratogenicity

Known human reproductive toxicant

### Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

### Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

### Aspiration hazard

no data available

### Potential health effects

<b>Inhalation</b>	Toxic if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	Toxic if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

### Signs and Symptoms of Exposure

Lead salts have been reported to cross the placenta and to induce embryo- and fet- mortality. They also have teratogenic effect in some animal species. No teratogenic effects have been reported with exposure to organometallic lead compounds. Adverse effects of lead on human reproduction, embryonic and fetal development, and postnatal (e.g., mental) development have been reported. Excessive exposure can affect blood, nervous, and digestive systems. The synthesis of hemoglobin is inhibited and results in anemia. If left untreated, neuromuscular dysfunction, possible paralysis, and encephalopathy can result. Additional symptoms of overexposure include: joint and muscle pain, weakness of the extensor muscles (frequently the hand and wrist), headache, dizziness, abdominal pain, diarrhea, constipation, nausea, vomiting, blue line on the gums, insomnia, and metallic taste. High body levels produce increased cerebrospinal pressure, brain damage, and stupor leading to coma and often death., Anorexia., Vomiting, Convulsions, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Synergistic effects

no data available

### Additional Information

RTECS: Not available

---

## 12. ECOLOGICAL INFORMATION

### Toxicity

no data available

### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### PBT and vPvB assessment

no data available

### Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

---

## 13. DISPOSAL CONSIDERATIONS

### Product

Sentury Reagents, Inc.

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

---

**14. TRANSPORT INFORMATION**

**DOT (US)**

UN number: 2291      Class: 6.1      Packing group: III  
Proper shipping name: Lead Compounds, Soluble, N.O.S. (Lead Oxide, Red)  
Pollutant: No  
Poison Inhalation Hazard: No

**IMDG**

UN number: 2291      Class: 6.1      Packing group: III  
Proper shipping name: Lead Compounds, Soluble, N.O.S. (Lead Oxide, Red)  
Pollutant: No

**IATA**

UN number: 2291      Class: 6.1      Packing group: III  
Proper shipping name: Lead Compounds, Soluble, N.O.S. (Lead Oxide, Red)

---

**15. REGULATORY INFORMATION**

**OSHA Hazards**

Oxidizer, Carcinogen, Target Organ Effect, Toxic by inhalation., Harmful by ingestion., Teratogen, Reproductive hazard

**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**

Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

	<b>CAS No</b>	<b>Revision Date</b>
Lead Tetraoxide	1314-41-6	1993-04-24

**Pennsylvania Right To Know Components**

Lead Tetraoxide	1314-41-6	1993-04-24
-----------------	-----------	------------

**New Jersey Right To Know Components**

Lead Tetraoxide	1314-41-6	1993-04-24
-----------------	-----------	------------

**California Prop. 65 Components**

WARNING! This product contains a chemical known to the State of California to cause cancer. Orange lead	1314-41-6	1993-04-24
--	-----------	------------

---

**16. OTHER INFORMATION**

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sentury Reagents, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.