



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Lead Oxide Red**
PRODUCT NUMBER: 2277
CAS NUMBER: 1314-41-6
SYNONYMS: Lead (II,IV) oxide; lead tetraoxide; triplumbic tetroxide, minium
MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H350	May cause cancer.
H360	May damage fertility or the unborn child.
H362	May cause harm to breast-fed children.
H372	Causes damage to central nervous system, blood formation, and kidneys through prolonged or repeated exposure.

Precautionary Phrases

P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P281	Use personal protective equipment as required.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

HMIS CLASSIFICATION:

Health: 0 Fire: 0 Reactivity Hazard: 0

NFPA RATING:

Health: 0 Flammability: 0 Reactivity Hazard: 0

EYE CONTACT: May cause eye irritation.

SKIN CONTACT: Contact to skin may lead to irritation, redness, and pain.

INHALATION: Causes damage to central nervous system, blood formation, and kidneys.

INGESTION: Can lead to muscle weakness, metallic taste, loss of appetite, insomnia, dizziness, high lead levels in blood, and urine with shock.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Pb_3O_4

Molecular Weight: 685.60

CHEMICAL NAME	CAS#	%
Lead Oxide	1314-41-6	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with soap and plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

INGESTION: Induce vomiting only if directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Not combustible, but is mild oxidizing agent which can increase the flammability of combustible materials that come in contact with it.

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Lead oxides fumes

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Sweep up and place in suitable container for proper disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation.. Avoid formation of dusts and aerosols.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store away from oxidizers and active metals.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Lead tetraoxide	0.05 mg/m ³	TLV	ACGIH
	0.05 mg/m ³	PEL	OSHA
	0.1 mg/m ³	REL	NIOSH
	100 mg/m ³	IDLH	NIOSH
	30 µg/100mL	BEI	ACGIH

TLV: Threshold Limit Value over 8 hours of work.

IDLH: Immediately Dangerous to Life or Health

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

BEI: Biological Exposure Indices

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Red-Orange powder

ODOR: None

MOLECULAR WEIGHT: 685.60

BOILING POINT: No data available

MELTING POINT: 500° C (dec.)

SPECIFIC GRAVITY: 9.1 gm/ml

SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Heat, sparks, and flame.

INCOMPATIBILITY: Avoid contact with oxidizers and chemically active metals. Aluminum powder, fluorine with the glycerol complex or the oxide, sodium, metal acetylene carbides, peroxyformic acid, dichloromethylsilane, hydrogen sulfides, and sulfur trioxide.

DECOMPOSITION PRODUCTS: Lead oxides fumes

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – Rat – >10000mg/kg

CARCINOGENIC EFFECTS: Lead compounds are probable human carcinogens.

MUTAGENIC EFFECTS: Not available

TETRAOGENIC EFFECTS: Is a teratogen.

CHRONIC TOXICITY: Lead is a cumulative poison, increasing amounts of lead can build up in the body and may reach a point where symptoms and disabilities occur. Continuous exposure may result in decreased fertility. Lead is a teratogen. Overexposure of lead by either parent before pregnancy may increase the chances of miscarriage or birth defects. May cause cancer. May cause damage to fertility. Contains a known or suspected reproductive toxic. May cause harm to the unborn child. May cause adverse kidney effects.

RTECS: No data

Inorganic lead compounds are slowly absorbed by ingestion and inhalation and poorly absorbed through the skin. If absorbed, lead will accumulate in the body with low rates of excretion, lead to long-term build up.

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

AQUATIC VERTEBRATE: Gambusia affinis mg/L LC50 static 0.041-0.81: 96h. Pimephales promelas, Oncorhynchus mykiss mg/L LC50 (pH 5.5-6.5) 0.052-3.60: 96h Pimephales promelas, Oncorhynchus mykiss mg/L LC50 (pH >6.5-7.5) 0.114-3.25: 96h Pimephales promelas, Oncorhynchus mykiss mg/L LC50 (pH <7.5-8.5)

AQUATIC INVERTEBRATE: 0.074-0.656: 48h Daphnia magna, Ceriodaphnia dubia mg/L LC50 (pH 5.5-6.5) 0.029-1.18: 48h Daphnia magna, Ceriodaphnia dubia mg/L LC50 (pH >6.5-7.5) 0.026-3.12: 48h Daphnia magna, Ceriodaphnia dubia mg/L LC50 (pH >7.5-8.5)

TERRESTRIAL: 0.072-0.388: 72h Preudokirchneriella subcapitata, Chlorella kesslerii mg/L ErC50 (pH 5.5-6.5) 0.027-0.080: 72h Preudokirchneriella subcapitata, Chlorella kesslerii mg/L ErC50 (pH >6.5-7.5) 0.021-0.050: 72h Preudokirchneriella subcapitata, Chlorella kesslerii mg/L ErC50 (pH <7.5-8.5)

Do not allow undiluted product or large quantities to reach ground water, watercourse, or sewage system. Avoid transfer to the environment

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

DOT: UN3077
Environmentally hazardous substances, solid, n.o.s.
(Lead Oxide Red)
CLASS 9
PG III

IATA: UN3077
Environmentally hazardous substance, solid, n.o.s.
(Lead Oxide Red)
CLASS 9
PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not Listed

SARA 311/312: Acute Health Hazard, Chronic Health Hazard

SARA (TITLE 313): Lead Tetroxide

CALIFORNIA PROP. 65: Contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. Lead Tetroxide

MASSACHUSETTS RIGHT TO KNOW COMPONENTS: No components are subject to the Massachusetts Right to Know Act.

NEW JERSEY RIGHT TO KNOW COMPONENTS: Lead Tetroxide

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Lead Tetroxide

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 06/15