Material Safety Data Sheet
Lead(ii,iv) oxide, red 98%

MSDS# 09306

Section 1 - Chemical Product and Company Identification

MSDS Name:	Lead(ii,iv) oxide, red 98%
Catalog Numbers:	AC221110000, AC221110010, AC221110050, AC221111000, AC221115000
Synonyms:	Lead oxide; red lead oxide; Mineral Oxide
Company Identification:	Acros Organics BVBA Janssen Pharmaceuticalaan 3a 2440 Geel, Belgium
Company Identification: (USA)	Acros Organics One Reagent Lane Fair Lawn, NJ 07410
For information in the US, call:	800-ACROS-01
For information in Europe, call:	+32 14 57 52 11
Emergency Number, Europe:	+32 14 57 52 99
Emergency Number US:	201-796-7100
CHEMTREC Phone Number, US:	800-424-9300
CHEMTREC Phone Number, Europe:	703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#:	1314-41-6
Chemical Name:	Lead(II,IV) oxide, red
%:	98.0
EINECS#:	215-235-6

Hazard Symbols: T N

Risk Phrases: 61 20/22 33 50/53 62

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Oxidizer. This substance has caused adverse reproductive and fetal effects in animals. May cause kidney damage. May cause central nervous system effects. Causes eye and skin irritation. Causes digestive and respiratory tract irritation. May cause cancer based on animal studies. Contact with other material may cause fire. Target Organs: Kidneys, central nervous system, blood forming organs.

Potential Health Effects

Eye:	Causes eye irritation.
Skin:	Causes skin irritation.
Ingestion:	May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage.
Inhalation:	Causes respiratory tract irritation. May cause effects similar to those described for ingestion.
Chronic:	Chronic exposure to lead may result in plumbism which is characterized by lead line in gum, headache, muscle weakness, mental changes.

Section 4 - First Aid Measures

Eyes:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin:	Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
Ingestion:	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Inhalation:	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician:	
Antidote:	The use of d-Penicillamine as a chelating agent should be determined by qualified medical personnel. The use of Calcium disodium EDTA as a chelating agent should be determined by qualified medical personnel. The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel.

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustion generates toxic fumes. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Oxidizer. Greatly increases the burning rate of combustible materials.
Extinguishing Media:	Use water only!
Autoignition Temperature:	Not applicable.
Flash Point:	Not applicable.
Explosion Limits: Lower:	Not available
Explosion Limits: Upper:	Not available
NFPA Rating:	; instability: OX

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation. Cover solids with a plastic sheet to prevent dissolving in rain or fire fighting waters.

Section 7 - Handling and Storage

Handling:	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid ingestion and inhalation. Keep from contact with clothing and other combustible materials. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage:	Do not store near combustible materials. Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Lead(II,IV) oxide, red	0.05 mg/m3 TWA (as Pb) (listed under Lead, inorganic compounds).	0.050 mg/m3 TWA (as Pb) (listed under Lead compounds).100 mg/m3 IDLH (as Pb) (listed under Lead compounds).	50 æg/m3 TWA (as Pb) (listed under Lead, inorganic compounds).50 æg/m3 TWA (as Pb); 30 æg/m3 Action Level (as Pb, Poison

			- see 29 CFR 1910.102 5)(listed under Lead, inorganic compounds).	

OSHA Vacated PELs: Lead(II,IV) oxide, red: None listed

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Personal Protective Equipment

Eyes: 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: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: orange - bright red

Odor: Odorless.

pH: Not available

Vapor Pressure: 1 mm Hg @ 943 deg C

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not applicable.

Boiling Point: 1472.2 deg C (2,681.96°F)

Freezing/Melting Point: 476.7-530 deg C

Decomposition Temperature: Not available

Solubility in water: Insoluble in water.

Specific Gravity/Density: 8.32-9.16

Molecular Formula: Pb3O4

Molecular Weight: 685.5976

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Explodes on contact with peroxyformic acid.

Conditions to Avoid: Incompatible materials, dust generation, combustible materials, reducing agents, strong oxidants.

Incompatibilities with Other Materials: Strong reducing agents, potassium, hydrogen peroxide, sodium, sulfides (inorganic, e.g. ferric sulfide, lead sulfide, sodium sulfide), sulfites, dichloromethylsilane, seleninyl chloride.

Hazardous Decomposition Products: Seleninyl chloride, oxygen, lead/lead oxides.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 1314-41-6: OG5425000

LD50/LC50: RTECS: Not available.

Carcinogenicity: Lead(II,IV) oxide, red - California: carcinogen, initial date 10/1/92 (Lead compounds). NTP: Suspect carcinogen (Lead compounds). IARC: Group 2A carcinogen

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: LEAD COMPOUNDS, SOLUBLE, N.O.S.
Hazard Class: 6.1
UN Number: UN2291
Packing Group: III
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T N

Risk Phrases:

R 61 May cause harm to the unborn child.

R 20/22 Harmful by inhalation and if swallowed.

R 33 Danger of cumulative effects.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 62 Possible risk of impaired fertility.

Safety Phrases:

S 53 Avoid exposure - obtain special instructions before use.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 1314-41-6: 2

Canada

CAS# 1314-41-6 is listed on Canada's DSL List

Canadian WHMIS Classifications: C, D2A, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 1314-41-6 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 1314-41-6 is listed on the TSCA Inventory.

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Section 16 - Other Information

MSDS Creation Date: 11/13/1998

Revision #5 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied,

with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
