



MATERIAL SAFETY DATA SHEET  
COMPLIES WITH 29 CFR 1910.1200.  
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 12-21-95

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## CHEMICAL IDENTITY

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LABEL IDENTITY	<b>LEAD TITANATE</b>
CHEMICAL NAME/SYNONYMS	<b>LEAD TITANIUM OXIDE</b>
FORMULA	<b>PbTiO<sub>3</sub></b>
CHEMICAL FAMILY	<b>METAL OXIDE</b>
CAS REGISTRY NUMBER	<b>N/A</b>
CALCULATED MOLECULAR WEIGHT	<b>N/A</b>
HAZARDOUS INGREDIENTS	<b>N/A</b>
PbO %: <tr	TLV: <b>0.15 mg/m<sup>3</sup></b>
Oral Toxicity (LD50): <b>430 mg/kg</b>	OSHA/PEL: <b>0.15 mg/m<sup>3</sup></b>
TiO <sub>2</sub> %: <tr	TLV: <b>10.0 mg/m<sup>3</sup></b>
Oral Toxicity (LD50): <b>Not Listed</b>	OSHA/PEL: <b>10.0 mg/m<sup>3</sup></b>
	Carcinogen: <b>IARC-2B*</b>
	Carcinogen: <b>NIOSH0X÷</b>

\*Possibly carcinogenic to humans, limited evidence in humans.  
Insufficient evidence in animals.

÷ Carcinogen defined with no other categorization.

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## PHYSICAL AND CHEMICAL PROPERTIES

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COLOR, FORM AND ODOR	<b>Odorless white powder</b>
BOILING POINT	<b>ND</b>
DENSITY (gm/cc)	<b>No inform.</b>
VAPOR PRESSURE @ 20°	<b>No inform</b>
% VOLATILE BY VOLUME (%)	<b>None</b>
REACTION WITH WATER	<b>None</b>
EVAPORATION RATE	<b>None</b>
SOLUBILITY IN WATER	<b>Mineral acids</b>

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## FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT	<b>None</b>
FLAMMABILITY	<b>Non-flammable</b>
EXTINGUISHING MEDIA	<b>Use suitable means for extinguishing surrounding fire</b>
SPECIAL FIRE FIGHTING PROCEDURES	<b>Wear a NIOSH approved self-contained breathing apparatus and a full protective coating</b>
UNUSUAL FIRE & EXPLOSION HAZARDS	<b>None</b>



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### HEALTH HAZARD INFORMATION

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TLV: **R&D material, limits not established.**

EFFECTS OF OVEREXPOSURE: **R&D material, effects not established**

EMERGENCY FIRST AID PROCEDURE:

INHALATION: **Remove to fresh air.**

DERMAL: **Wash thoroughly with soap and water**

INGESTION: **Seek immediate medical attention**

**Seek medical attention in all cases**

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### REACTIVITY DATA

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STABILITY	<b>Stable</b>
INCOMPATIBILITY (MATERIALS TO AVOID)	<b>Acids</b>
HAZARDOUS DECOMPOSITION PRODUCTS	<b>PbO</b>
HAZARDOUS POLYMERIZATION	<b>None</b>

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### SAFE HANDLING AND USE

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: **Pick up and place in a suitable container for reclamation or disposal in a method that does not generate dust**

WASTE DISPOSAL METHOD:

**Consult federal, state and local authorities for proper disposal.**

NORMAL HANDLING & STORAGE: **Keep in tightly closed container, store in cool dry ventilated area, isolate from incompatible substances.**

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### SPECIAL PROTECTIVE INFORMATION

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RESPIRATORY PROTECTION

**NIOSH approved - consult supplier for limitations**

VENTILATION

**Local exhaust preferred, consult ACGIH document "Industrial Ventilation, A Manual Of Recommended Practices"**

OTHER PROTECTIVE CLOTHING:

**Lab coat or apron, gloves and safety glasses. Always wear eye protection.**



## LEAD TITANATE MATERIAL SAFETY DATA SHEET

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### SPECIAL PRECAUTIONS

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May emit PBO vapor at high temperatures

For laboratory use only. Not for drug, household or other uses. This is an R&D Material and should only be used by qualified staff.

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THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, **ANGSTROM SCIENCES** MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR THE RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.

**NA= NOT APPLICABLE**

**ND= NO DATA FOUND**