Vickers Laboratories Ltd - Safety Data Sheet 1193

(in accordance with regulation (EU) 2015/830 and regulation (EC) 1272/2008)

Revision: 1.1 Revision date: 16 April 2021
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Section 1. Identification

1.1 Product Identifier 1193

Product Name LEAD (IV) OXIDE pure

CAS Number 1309-60-0
REACH Registration No 01-2119531110-62-XXXX

Molecular Formula $PbO_2 = 239.2$

1.2 Relevent identified uses of the substance or mixure & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd

VICKERS LABORATORIES

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Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Oxidising solid, category 3	H272: May intensify fire; oxidizer.
Acute toxicity, category 4 (oral)	H302: Harmful if swallowed.
Acute toxicity, category 4 (inhalation)	H332: Harmful if inhaled.
Reproductive toxicity, category 1A	H360: May damage fertility or the unborn child.
Spec target organ tox - repeat, category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Hazard to aquatic environment, category 1	H400: Very toxic to aquatic life.
Hazard to aquatic environment, category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms

Hazard Statements	May damage fertility or the unborn child. Harmful if inhaled or swallowed. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects. May intensify fire; oxidizer.
Precautionary Statements	Use personal protective equipment as required. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Lead dioxide	1309-60-0	215-174-5	01-2119531110-62-XXXX	>95%	Ox. Sol. 3,Acute Tox. 4 (O),Acute Tox. 4 (I),Repr. 1A,STOT RE 2,Aquatic Acute 1,Aquatic Chronic 1

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.
Skin	Thoroughly wash off skin with soap and water. Remove contaminated clothing immediately and wash before re-use.
Inhalation	Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION.
Ingestion	If conscious wash out mouth thoroughly with water and give water or milk to drink. Do not induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Consider what other flammable materials are present and act accordingly. Use water spray to keep fire exposed containers cool.
Unsuitable Media	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire.

5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Evacuate area immediately. Do not allow other people to enter area. Avoid breathing dust-wear respiratory protective equipment.

6.2 Environmental precautions

Enviromental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

6.3 Methods and material for containment and cleaning up

Major Spillage	Vacuum up into container for removal. Carefully remove material from vacuum cleaner and transfer to sealable container for disposal. Carry out this operation under fume extraction.
Minor Spillage	Vacuum up into container for removal. Carefully remove material from vacuum cleaner and transfer to sealable container for disposal. Carry out this operation under fume extraction.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains dust concentrations to a minimum.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Keep well separated from food and food containers. Protect from direct sun and store away from sources of ignition. Keep well separated from combustible materials.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)		Short Term 15min period)	
Lead dioxide	1309-60-0	>95%	-	-	-	-

Exposure data source(s)	No occupational exposure data currently available.

8.2 Exposure controls

Respiratory Protection	Use L.E.V. or natural ventilation to reduce dust concentrations to a minimum. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.
Hand Protection	Wear gloves.
Eye Protection	No specific hazard through eye contact although the wearing of safety glasses is advised.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Brown powder.
Odour	No specific odour.
pH	Not applicable
Boiling Point	Not available
Melting Point	Not applicable
Flash Point	Not applicable
Upper Flammable Limit	Not applicable

Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	Not explosive as a single substance.
Oxidising Properties	A strong oxidising agent.
Vapour Pressure	Not applicable
Relative Density	Not available
Water Solubility	Insoluble in water.

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1	Reactivity	No data available.
10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	Avoid hot surfaces, naked flames, sources of ignition, compression or shock.
10.5	Incompatable Materials	Aluminium carbide, sulphides, hydrogen peroxide, hydroxylamine, combustable and organic materials.
10.6	Hazardous Decomposition Products	Decomposes to emit flammable oxygen gas and toxic fumes of oxides of lead.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Contact with the solid or dust may be irritating to the eyes but unlikely to cause serious injury.
Skin	Unlikely to be an irritant on brief or occasional exposure.
LD50 Skin	Not available
Ingestion	Moderately toxic by ingestion.
LD50 Oral	Not available
Inhalation	Inhalation of the dust may cause ultra structural changes to the lungs and effect the central nervous system.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	No conclusive evaluation of its carcinogenic properties has been made.
Mutagenicity	Significant increases in chromosome aberrations have been reported.
Reproductive Effects	May damage the unborn child.
Other Information	Chronic lead poisoning may occur from dust inhalation. Anaemia and other blood effects are the most common. Early symptoms of poisoning include fatigue, headache, sleep disturbances, aching bones and muscles, gastrointestinal disturbances and reduced appetite. Large doses affect the central nervous system causing severe headaches, convulsions, coma, kidney damage and death.

Section 12. Ecological

12.1	Toxicity	Lead salts are harmful to the environment. Very Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.
	LC50 Algal	Not available
	LC50 Crustacea	Not available
	LC50 Fish	Not available
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.

12.6 Other adverse effects — None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Dispose of to a licensed land fill site.
Contaminated Packaging	Use a licensed waste disposer.

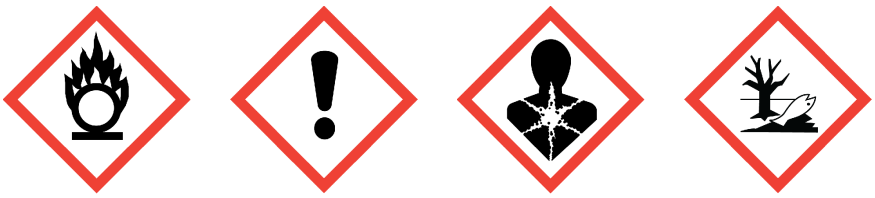
Section 14. Transport Information

14.1	**UN Number**	1872
14.2	**Proper Shipping Name**	Lead dioxide
14.3	**Transport classes**	
	UN classification	5.1
	Subsidiary hazard(s)	None
	Transport category	3
	ADR Hazard ID	56
	Tunnel Restriction Code	E
14.4	**Packing Group**	III
14.5	**Environment hazards**	See section 12.
14.6	**Special precautions for user**	No special precautions required.
14.7	**Transport in bulk**	Not transported in bulk.

Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for subtance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification	Oxidising solid, category 3; Acute toxicity, category 4 (oral); Acute toxicity, category 4 (inhalation); Reproductive toxicity, category 1A; Spec target organ tox - repeat, category 2; Hazard to aquatic environment, category 1; Hazard to aquatic environment, category 1
Signal word	Danger
Hazard Pictograms	
Hazard Statements	H360, H302+H332, H373, H410, H272 May damage fertility or the unborn child. Harmful if inhaled or swallowed. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects. May intensify fire; oxidizer.
Precautionary Statements	P281, P260, P264, P270, P301+P312, P330 Use personal protective equipment as required. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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