

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.22.2017

Page 1 of 9

## Lead Dioxide

### SECTION 1: Identification

#### Product identifier

**Product name:** Lead Dioxide

**Product code:** S25380

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Not determined or not applicable.

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

#### Manufacturer or supplier details

**Manufacturer:**

AquaPhoenix Scientific  
860 Gitts Run Road  
Hanover  
PA 17331  
(717) 632-1291

**Supplier:**

Fisher Science Education  
6771 Silver Crest Road  
Nazareth  
PA 18064  
800 955-1177

#### Emergency telephone number:

**United States**

Emergency Telephone No.: 800-255-3924

### SECTION 2: Hazard identification

#### GHS classification:

Oxidizing solids, category 3

Acute toxicity (oral), category 4

Acute toxicity (inhalation), category 4

Reproductive toxicity, category 1A

Specific target organ toxicity - repeated exposure, category 2

Acute aquatic hazard, category 1

Chronic aquatic hazard, category 1

#### Label elements

**Hazard pictograms:**



**Signal word:** Danger

#### Hazard statements:

H272 May intensify fire; oxidizer

H302 Harmful if swallowed

H332 Harmful if inhaled

H360 May damage fertility or the unborn child

H373 May cause damage to organs through prolonged or repeated exposure

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.22.2017

Page 2 of 9

## Lead Dioxide

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

### Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking

P220 Keep/Store away from clothing/combustible materials

P221 Take any precaution to avoid mixing with combustibles

P280 Wear protective gloves/protective clothing/eye protection/face protection

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

P201 Obtain special instructions before use

P202 Do not handle until all safety precautions have been read and understood

P260 Do not breathe dust/fume/gas/mist/vapors/spray

P273 Avoid release to the environment

P370+P378 In case of fire: Use agents recommended in section 5 for extinction

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

P304+P340+P312 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell

P308+P313 If exposed or concerned: Get medical advice/attention

P391 Collect spillage

P405 Store locked up

P501 Dispose of contents and container as instructed in Section 13

**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 1309-60-0	Lead dioxide	100

**Additional Information:** None

## SECTION 4: First-aid measures

### Description of first-aid measures

#### General notes:

Not determined or not available.

#### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

Move to fresh air

Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

#### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

#### After eye contact:

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.22.2017

Page 3 of 9

## Lead Dioxide

Rinse/flush exposed eye(s) gently using water for 15-20 minutes  
If symptoms develop or persist, seek medical attention

### After ingestion:

Rinse mouth thoroughly  
Seek medical attention if irritation, discomfort, or vomiting persists  
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell  
Do not induce vomiting  
Rinse mouth and then drink plenty of water

### Most important symptoms and effects, both acute and delayed

#### Acute symptoms and effects:

Not determined or not available.

#### Delayed symptoms and effects:

Not determined or not available.

### Immediate medical attention and special treatment

#### Specific treatment:

Not determined or not available.

#### Notes for the doctor:

Not determined or not available.

## SECTION 5: Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

#### Unsuitable extinguishing media:

Not determined or not applicable.

### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors  
Will release oxygen when heated, intensifying a fire

### Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

### Special precautions:

Carbon monoxide and carbon dioxide may form upon combustion  
Heating causes a rise in pressure, risk of bursting and combustion

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation  
Ensure air handling systems are operational  
Wear protective eye wear, gloves and clothing

### Environmental precautions:

Should not be released into the environment  
Prevent from reaching drains, sewer or waterway

### Methods and material for containment and cleaning up:

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.22.2017

Page 4 of 9

## Lead Dioxide

Wear protective eye wear, gloves and clothing  
Sweep or scoop up solid material while minimizing dust generation  
Dispose of contents / container in accordance with local regulations

### Reference to other sections:

Not determined or not applicable.

## SECTION 7: Handling and storage

### Precautions for safe handling:

Use only with adequate ventilation.  
Avoid breathing dust.  
Do not eat, drink, smoke or use personal products when handling chemical substances.

### Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.  
Keep container dry.  
Store in a cool, well-ventilated area.  
Store away from flammable and combustible materials (paper, wood).  
Store away from reducing agents (zinc, alkaline metals, formic acid).

## SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

### Occupational Exposure limit values:

No occupational exposure limits noted for the ingredient(s).

### Biological limit values:

No biological exposure limits noted for the ingredient(s).

### Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.  
Biological monitoring may also be appropriate for some substances.

### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.  
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

### Personal protection equipment

#### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

#### Skin and body protection:

Select glove material impermeable and resistant to the substance.  
Wear appropriate clothing to prevent any possibility of skin contact.

#### Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

### General hygienic measures:

Avoid contact with skin, eyes and clothing.

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.22.2017

Page 5 of 9

## Lead Dioxide

Wash hands before breaks and at the end of work.  
Wash contaminated clothing before reuse.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance (physical state, color):</b>	Dark brown solid
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined or not available.
<b>pH-value:</b>	Not determined or not available.
<b>Melting/Freezing point:</b>	290°C
<b>Boiling point/range:</b>	Not determined or not available.
<b>Flash point:</b>	Not determined or not available.
<b>Evaporation rate:</b>	Not determined or not available.
<b>Flammability (solid, gaseous):</b>	Not determined or not available.
<b>Explosion limit upper:</b>	Not determined or not available.
<b>Explosion limit lower:</b>	Not determined or not available.
<b>Vapor pressure:</b>	Not determined or not available.
<b>Vapor density:</b>	Not determined or not available.
<b>Density:</b>	Not determined or not available.
<b>Relative density:</b>	Not determined or not available.
<b>Solubilities:</b>	Insoluble in water.
<b>Partition coefficient (n-octanol/water):</b>	Not determined or not available.
<b>Auto/Self-ignition temperature:</b>	Not determined or not available.
<b>Decomposition temperature:</b>	> 290 °C
<b>Dynamic viscosity:</b>	Not determined or not available.
<b>Kinematic viscosity:</b>	Not determined or not available.
<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	This product is an oxidizing solid.

#### Other information

### SECTION 10: Stability and reactivity

#### Reactivity:

Does not react under normal conditions of use and storage.

#### Chemical stability:

Stable under normal conditions of use and storage.

#### Possibility of hazardous reactions:

None under normal conditions of use and storage.

#### Conditions to avoid:

Incompatible materials. Dust formation.

#### Incompatible materials:

cing agents, organic materials, active metals, halogens azides, and fulminates.

#### Hazardous decomposition products:

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.22.2017

Page 6 of 9

## Lead Dioxide

Lead oxides. Oxygen gases.

### SECTION 11: Toxicological information

#### Acute toxicity

**Assessment:** Harmful if swallowed Harmful if inhaled

**Product data:** No data available.

**Substance data:**

Name	Route	Result
Lead dioxide	oral	Harmful if swallowed.
	inhalation	Harmful if inhaled.

#### Skin corrosion/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Serious eye damage/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

#### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Reproductive toxicity

**Assessment:** May damage fertility or the unborn child

**Product data:** No data available.

**Substance data:**

Name	Result
Lead dioxide	May damage the unborn child. Suspected of damaging fertility.

#### Specific target organ toxicity (single exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Specific target organ toxicity (repeated exposure)

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.22.2017

Page 7 of 9

## Lead Dioxide

**Assessment:** May cause damage to organs through prolonged or repeated exposure

**Product data:** No data available.

**Substance data:**

Name	Result
Lead dioxide	May cause damage to organs through prolonged or repeated exposure.

### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

## SECTION 12: Ecological information

### Acute (short-term) toxicity

**Assessment:** Very toxic to aquatic life

**Product data:** No data available.

**Substance data:** No data available.

### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

### Mobility in soil

**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.

## SECTION 13: Disposal considerations

### Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

## SECTION 14: Transport information

### Canadian Transportation of Dangerous Goods (TDG)

UN number	UN1872
UN proper shipping name	Lead dioxide



# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015



Initial preparation date: 12.22.2017

Page 8 of 9



## Lead Dioxide

UN transport hazard class(es)	5.1	 
Packing group	III	
Environmental hazards	Marine Pollutant	
Special precautions for user	None	

### International Maritime Dangerous Goods (IMDG)

UN number	UN1872	
UN proper shipping name	Lead dioxide	
UN transport hazard class(es)	5.1	 
Packing group	III	
Environmental hazards	Marine Pollutant	
Special precautions for user	None	

### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN1872	
UN proper shipping name	Lead dioxide	
UN transport hazard class(es)	5.1	 
Packing group	III	
Environmental hazards	Marine Pollutant	
Special precautions for user	None	

## SECTION 15: Regulatory information

### Canada regulations

#### Domestic substances list (DSL):

1309-60-0	Lead dioxide	Listed
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Non-domestic substances list (NDSL): Not determined.

## SECTION 16: Other information

Abbreviations and Acronyms: None

### Disclaimer:

This product has been classified in accordance with the Canadian Hazardous Products Regulations and WHMIS 2015. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information



## Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.22.2017

Page 9 of 9

### Lead Dioxide

relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 2-0-1-ox

**HMIS:** 2-0-1-X

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**End of Safety Data Sheet**