

### SECTION 1: Product and company identification

#### 1.1. Product

Product Form:	Powder
Product Name(s):	Lead White, Basic Lead Carbonate
CAS No.	1319-46-6
Product Code(s):	475-10xx

#### 1.2. Relevant Identified Uses of the Product

For art and art conservation use only.

#### 1.3. Company Details and Supplier of the Safety Data Sheet

##### Natural Pigments

291 Shell Lane, Willits, California 95490  
Telephone: 707-459-9998 Facsimile: 408-516-9442  
Email: info@naturalpigments.com  
Web site: www.naturalpigments.com

#### 1.4. Emergency Telephone Number

CHEMTREC: 1-800-424-9300 or 011-703-527-3887

### SECTION 2: Hazards identification

#### 2.1. Classification of Hazardous Substances

**This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).**

Acute oral toxicity	Category 4
Acute Inhalation Toxicity—Dusts and Mists	Category 4
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 1A
Specific target organ toxicity—(repeated exposure)	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

#### 2.2. Label elements

##### GHS-US Labelling

##### Hazard Pictograms (GHS-US):



##### Signal word (GHS-US):

##### Hazard statements (GHS-US):

##### Precautionary statements (GHS-US):

##### HMIS Classification

##### NFPA Rating

##### Danger

H302 + H332 Harmful if swallowed or if inhaled.  
H360 May damage fertility or the unborn child.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.  
P201 Obtain special instructions before use.  
P273 Avoid release to the environment.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P501 Dispose of contents/container to an approved waste disposal plant.

Health hazard: 2  
Chronic Health Hazard: \*  
Flammability: 0  
Physical hazards: 0  
Health hazard: 2

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### Potential Health Effects

Fire: 0  
Reactivity Hazard: 0  
Inhalation Toxic if inhaled. May cause respiratory tract irritation.  
Skin May be harmful if absorbed through skin. May cause skin irritation.  
Eyes May cause eye irritation.  
Ingestion Toxic if swallowed.

### 2.3. Other hazards

Other hazards not contributing to the classification: None under normal conditions.

### 2.4. Unknown acute toxicity (GHS-US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Product type: Mono-constituent

Name	Product Identifier	%	GHS-US Classification
Basic Lead Carbonate (Lead(II) Carbonate)	CAS No. 598-63-0	100	Skin Irrit. 2, H315
	EC No. 209-943-4		Eye Irrit. 2B, H320 STOT SE 3, H335

Full text of H-phrases: see section 16

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).  
First-aid measures after inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician.  
First-aid measures after skin contact: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.  
First-aid measures after eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician.

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

Symptoms/injuries after inhalation: May cause respiratory irritation.  
Symptoms/injuries after skin contact: Causes skin irritation.  
Symptoms/injuries after eye contact: Causes eye irritation.

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

Obtain medical assistance.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Unsuitable extinguishing media: Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions: Lead oxides

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### 5.3. Advice for firefighters

Firefighting instructions:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting:	Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment:	Safety glasses. Gloves. Dust mask.
Emergency procedures:	Evacuate unnecessary personnel to safe areas. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

#### 6.1.2. For emergency responders

Protective equipment:	Equip cleanup crew with proper protection.
Emergency procedures:	Ventilate area.

### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up:	On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
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### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling:	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust. Use only outdoors or in a well-ventilated area.
Hygiene measures:	Wash exposed skin thoroughly after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions:	Keep container tightly closed.
Incompatible products:	Strong oxidizers. Strong acids.
Incompatible materials:	Sources of ignition.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Lead(II) Carbonate (598-63-0)		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> ACGIH Threshold Limit Values (TLV)
Remarks	Central Nervous System impairment Hematologic effects Peripheral Nervous System impairment. Substances for which there is a Biological Exposure Index or Indices (see BEI <sup>®</sup> section). Confirmed animal carcinogen with unknown relevance to humans varies. See 1910.1025.	
USA NIOSH	OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> NIOSH Recommended Exposure Limits

### 8.2. Exposure controls

Appropriate engineering controls:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation.
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Personal protective equipment:	Avoid all unnecessary exposure.
Hand protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
Eye protection:	Chemical goggles or safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin and body protection:	Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection:	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Other information:	Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Solid
Appearance:	White powder or lumps
Molecular mass:	267.21 g/mol
Color:	White
Odor:	None
Odor threshold:	No data available
pH:	No data available
Relative evaporation rate (butylacetate=1):	No data available
Melting point:	400 °C (752 °F)
Freezing point:	Not applicable
Boiling point:	No data available
Flash point:	No data available
Self ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Vapour pressure:	No data available
Relative vapour density at 20 °C:	No data available
Relative density:	No data available
Density:	6.14 g/cm <sup>3</sup>
Solubility:	Water: 0.00153 g/100ml
Log Pow:	No data available
Log Kow:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Explosive limits:	No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reacts with acids.

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### 10.4. Conditions to avoid

No data available.

### 10.5. Incompatible materials

Strong acids. Strong oxidizers.

### 10.6. Hazardous decomposition products

Lead oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity: Not classified

<b>Lead (II) Carbonate (598-63-0)</b>	
Oral LD50 rat	No data available
Inhalation LC50	No data available
Dermal LD50	No data available

Skin corrosion/irritation: Not classified  
Serious eye damage/irritation: Not classified  
Respiratory or skin sensitisation: Not classified  
Germ cell mutagenicity: Not classified  
Specific target organ toxicity (single exposure): May cause respiratory irritation.  
Specific target organ toxicity (repeated exposure): May cause damage to organs through prolonged or repeated exposure.  
Aspiration hazard: Not classified

#### Potential Health Effects

Inhalation Toxic if inhaled. May cause respiratory tract irritation.  
Ingestion Toxic if swallowed.  
Skin May be harmful if absorbed through skin. May cause skin irritation.  
Eyes May cause eye irritation.

#### Signs and Symptoms of Exposure

Symptoms/injuries after inhalation: May cause respiratory irritation.  
Symptoms/injuries after skin contact: Causes skin irritation.  
Symptoms/injuries after eye contact: Causes eye irritation.  
Likely routes of exposure: Inhalation; Skin and eye contact

Lead salts have been reported to cross the placenta and to induce embryo- and feto-mortality. They also have teratogenic effect in some animal species. No teratogenic effects have been reported with exposure to organometallic lead compounds. Adverse effects of lead on human reproduction, embryonic and fetal development, and postnatal (e.g., mental) development have been reported. Excessive exposure can affect blood, nervous, and digestive systems. The synthesis of hemoglobin is inhibited and results in anemia. If left untreated, neuromuscular dysfunction, possible paralysis, and encephalopathy can result. Additional symptoms of overexposure include: joint and muscle pain, weakness of the extensor muscles (frequently the hand and wrist), headache, dizziness, abdominal pain, diarrhea, constipation, nausea, vomiting, blue line on the gums, insomnia, and metallic taste. High body levels produce increased cerebrospinal pressure, brain damage, and stupor leading to coma and often death. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### Carcinogenicity

**IARC:** Group 3: Not classifiable as to its carcinogenicity to humans (Lead(II) carbonate)  
Group 2A: Probably carcinogenic to humans (Lead(II) carbonate)  
**NTP:** Reasonably anticipated to be a human carcinogen. The reference note has been added by TD based on the background information of the NTP. (Lead(II) carbonate)  
**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### Reproductive Toxicity

Known human reproductive toxicant

#### Teratogenicity

No data available

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### SECTION 12: Ecological information

#### 12.1. Toxicity

##### Lead (II) Carbonate (598-63-0)

Toxicity to fish LC50—*Pimephales promelas* (fathead minnow) > 5.00 mg/l—96.0 h

#### 12.2. Persistence and degradability

##### Lead (II) Carbonate (598-63-0)

Persistence and degradability Not established.

#### 12.3. Bioaccumulative potential

##### Lead (II) Carbonate (598-63-0)

Bioaccumulative potential Not established.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Very toxic to aquatic life with long lasting effects.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.  
Contaminated kackagin: Dispose of as unused product.  
Ecology—waste materials: Avoid release to the environment.

### SECTION 14: Transport information

#### DOT

Not dangerous goods in sense of transport regulations.

#### IMDG

**UN number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-F**

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Lead(II) carbonate)

Marine Pollutant: Marine pollutant

#### IATA

**UN number: 3077 Class: 9 Packing group: III**

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Lead(II) carbonate)

#### Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods >5L for liquids or >5kg for solids.

#### Additional information

Other information: No supplementary information available.

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Lead(II) Carbonate (598-63-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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### 15.2. International regulations

#### Lead(II) Carbonate (598-63-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Class D Division 2 Subdivision B - Toxic material causing other toxic effects

#### International Inventories

Country(s) or region	Inventory name	On inventory*
Australia Australian	Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCs)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

\*"Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s). "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

### 15.3. US State regulations

#### Massachusetts Right To Know Components

	CAS No.	Revision Date
Lead(II) carbonate	598-63-0	1993-04-24

#### Pennsylvania Right To Know Components

	CAS No.	Revision Date
Lead(II) carbonate	598-63-0	1993-04-24

#### New Jersey Right To Know Components

	CAS No.	Revision Date
Lead(II) carbonate	598-63-0	1993-04-24

#### California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

	CAS No.	Revision Date
Lead(II) carbonate	598-63-0	2007-09-28

## SECTION 16: Other information

Other information: None.

Full text of H-phrases: see section 16:

Eye Irrit. 2B	Serious eye damage/eye irritation, Category 2B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

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