

**Issue Date** 23-Sep-2014

**Revision Date** 7-Aug-2018.

**Version** 2

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**
**Product identifier**
**Product Name** Litharge High Metallic

**Other means of identification**
**UN/ID No.** 3077

**Synonyms** HM-Low Regular (Industrial Grade) HM T-Grade (SLI Grade)

**Recommended use of the chemical and restrictions on use**
**Recommended Use** Not available.

**Uses Advised Against** Not available.

**Details of the supplier of the safety data sheet**
**Manufacturer Address**

Hammond Lead Products  
 Hammond Plant  
 Hammond Group, Inc.  
 2308 165th Street  
 Hammond, IN 46323

Hammond Lead Products  
 Pottstown Plant  
 Hammond Group, Inc.  
 10 South Grosstown Road  
 Pottstown, PA 19464

**Emergency telephone number**
**Company Phone Number** 219-845-0031

**24 Hour Emergency Phone Number** Chemtrec (US): 1-800-424-9300.

**2. HAZARDS IDENTIFICATION**
**Classification**
**Health Hazards**

Carcinogenicity	Category 1B
Reproductive Toxicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 1

**Physical Hazards**

Not classified.

**OSHA Regulatory Status**

This product is considered hazardous by the 2012 OSHA Hazard Communication Standard/Globally Harmonized System of Classification and Labelling of Chemicals (GHS); (29 CFR 1910.1200; Revision 3).

**Label elements****Emergency Overview****Danger****Hazard Statements**

May cause cancer.

May damage fertility or the unborn child.

May cause harm to breast-fed children.

Causes damage to central nervous system, blood formation and kidneys and cardiovascular system through prolonged or repeated exposure



**Appearance** Not available.

**Physical State** Powder.

**Odor** Not available.

**Precautionary Statements - Prevention**

Obtain special instructions before use.

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

Use personal protective equipment as required.

Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink, or smoke when using this product.

Use only outdoors or in a well-ventilated area.

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

**Precautionary Statements - Response**

If exposed or concerned: Get medical attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

If swallowed: Call a poison center or doctor if you feel unwell.

Rinse mouth.

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal facility.

**Hazards not otherwise classified (HNOC)**

Not applicable.

**Other information**

Toxic to aquatic life with long lasting effects.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

This product is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200; Revision 3).

**Synonyms**

HM-Low Regular (Industrial Grade) HM T-Grade (SLI Grade)

Chemical Name	CAS No.	Weight-%
Lead Monoxide/Litharge	1317-36-8	70-100
Powdered Lead	7439-92-1	0-30

#### 4. FIRST AID MEASURES

##### First aid measures

<b>Eye Contact</b>	In case of eye contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
<b>Inhalation</b>	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. If conscious, have victim clear nasal passages.
<b>Ingestion</b>	Seek immediate medical attention. Rinse mouth. Drink plenty of water. Induce vomiting, but only if victim is fully conscious.

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

<b>Symptoms</b>	Symptoms of chronic lead poisoning include an ashen skin color, premature aging, lack of appetite, cramping abdominal pain (LEAD COLIC), headache, constipation, muscle weakness, peripheral motor-neuropathy, anemia, hypertension, and irreversible kidney damage.
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##### Indication of any immediate medical attention and special treatment needed

<b>Note to Physicians</b>	Treat symptomatically.
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#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

<b>Unsuitable Extinguishing Media</b>	Unknown.
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##### Specific hazards arising from the chemical

May give off toxic fumes in a fire, including lead fumes.

##### Explosion data

<b>Sensitivity to Mechanical Impact</b>	None known.
<b>Sensitivity to Static Discharge</b>	None known.

##### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

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

<b>Personal Precautions</b>	Evacuate personnel to safe areas. Avoid contact with skin, eyes and inhalation of dusts. Avoid creating dust. Use personal protective equipment as required.
<b>For emergency responders</b>	Wear respiratory protection. Wear proper personal protective equipment (gloves and goggles). Wear appropriate outer garment to protect clothing.

##### Environmental precautions

**Environmental Precautions** Prevent entry into waterways, sewers, surface drainage systems and poorly ventilated areas.

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

**Methods for Containment** Avoid creating dust. Safely stop source of spill. Restrict non-essential personnel from area. All personnel involved in spill cleanup should avoid skin and eye contact by wearing appropriate personal protection equipment. Do not breathe dust.

**Methods for Cleaning Up** Avoid dust formation. Clean up dusts with high efficiency particulate air (HEPA) filtered vacuum equipment or by wet cleaning.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## **7. HANDLING AND STORAGE**

#### **Precautions for safe handling**

**Advice on Safe Handling** Use personal protection recommended in Section 8. Avoid generation of dust. Be familiar with the requirements set forth in the OSHA Lead Standard, 29 CFR 1910.1025.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible materials** Hydrogen peroxide, strong oxidizing agents and acids.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Control parameters**

**Exposure Guidelines** This product, as supplied, contains the following hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

<b>Chemical Name</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>	<b>NIOSH IDLH</b>
Lead Monoxide/Litharge 1317-36-8	TWA: 0.05 mg/m <sup>3</sup> Pb	TWA: 0.05 mg/m <sup>3</sup> Pb	IDLH: 100 mg/m <sup>3</sup> Pb TWA: 0.050 mg/m <sup>3</sup> Pb
Powdered Lead 7439-92-1	TWA: 0.05 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup> Pb	TWA: 50 µg/m <sup>3</sup> TWA: 50 µg/m <sup>3</sup> Pb	IDLH: 100 mg/m <sup>3</sup> IDLH: 100 mg/m <sup>3</sup> Pb TWA: 0.050 mg/m <sup>3</sup> TWA: 0.050 mg/m <sup>3</sup> Pb

#### **Appropriate engineering controls**

**Engineering Controls** Use contained process enclosures, local exhaust ventilation or other engineering controls to maintain aerosols below the exposure limit.  
If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit

#### **Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Use safety glasses with side shields or chemical goggles.

**Skin and Body Protection** Protective clothing is required if exposure exceeds the PEL or TLV or where possibility of skin or eye irritation exists. Full body cotton or disposable coveralls and disposable gloves should be worn during use and handling. Clothing should be left at work site and be properly disposed of or laundered after use. The wash water should be disposed of in accordance with local, state and federal regulations. Personal clothing should be protected

from contamination.

**Respiratory Protection**

If engineering controls cannot maintain airborne concentrations below exposure limits, use appropriate, approved respiratory protection (a 42 CFR 84 Class N, R, or P-100 particulate filter cartridge). When exposure levels are unknown, a self-contained breathing apparatus which supplies a positive air pressure within a full face-piece mask should be worn. Utilization of respiratory equipment should be in accordance with 29 CFR 1910.1025 and 29 CFR 1910.134.

**General Hygiene Considerations**

Do not eat, drink, or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear disposable gloves and eye/face protection. Wash face, hands and any exposed skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical State</b>	Powder.	<b>Odor</b>	Not available.
<b>Appearance</b>	Not available.	<b>Odor Threshold</b>	Not available.
<b>Color</b>	Grey/brown		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks</u></b>
<b>pH</b>	Not available.	
<b>Melting Point/Freezing Point</b>	>600 °C	
<b>Boiling Point/Boiling Range</b>	>600 °C	
<b>Flash Point</b>	Not available.	
<b>Evaporation Rate</b>	Not available.	
<b>Flammability (solid, gas)</b>	Not available.	
<b>Flammability Limit in Air</b>		
<b>Upper Flammability Limit:</b>	Not available.	
<b>Lower Flammability Limit:</b>	Not available.	
<b>Vapor Pressure</b>	Not available.	
<b>Vapor Density</b>	Not available.	
<b>Specific Gravity</b>	9.96	
<b>Water Solubility</b>	70.2 mg/L at 20°C	
<b>Solubility in Other Solvents</b>	Lead compounds, soluble in 0.07 M hydrochloric acid.	
<b>Partition Coefficient</b>	Not available.	
<b>Autoignition Temperature</b>	Not available.	
<b>Decomposition Temperature</b>	>600°C	
<b>Kinematic Viscosity</b>	Not available.	
<b>Dynamic Viscosity</b>	Not available.	
<b>Explosive Properties</b>	Not available.	
<b>Oxidizing Properties</b>	Not available.	

**Other information**

<b>Softening Point</b>	Not available.
<b>Molecular Weight</b>	Not available.
<b>VOC Content (%)</b>	Not available.
<b>Density</b>	18-29 g/in <sup>3</sup>
<b>Bulk Density</b>	Not available.

## 10. STABILITY AND REACTIVITY

**Reactivity**

Stable at normal conditions.

**Chemical stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Avoid excessive exposure to heat.

**Incompatible materials**

Hydrogen peroxide, strong oxidizing agents and acids.

**Hazardous decomposition products**

Lead oxide fumes.

## 11. TOXICOLOGICAL INFORMATION

**Product Information**

Lead monoxide and other inorganic lead compounds have generally been found to be of relatively low acute toxicity by ingestion, in contact with skin, and by inhalation.

**Acute Toxicity****Component Information**

Lead monoxide is slowly absorbed by ingestion and inhalation and poorly absorbed through the skin. If absorbed, lead will accumulate in the body with low rates of excretion, leading to long-term build up. Part of risk management is to take blood samples from workers for analysis to ensure that exposure levels are acceptable.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50	Intravenous LD50
Lead Monoxide/Litharge 1317-36-8	> 10000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	> 5 mg/L/4 hr ( Rat )	-

**Information on toxicological effects****Symptoms**

Symptoms of chronic lead poisoning include an ashen skin color, premature aging, lack of appetite, cramping abdominal pain (LEAD COLIC), headache, constipation, muscle weakness, peripheral motor-neuropathy, anemia, hypertension, and irreversible kidney damage.

**Delayed and immediate effects as well as chronic effects from short- and long-term exposure****Skin Corrosion/Irritation**

Studies of lead monoxide and similar compounds have shown that sparingly soluble inorganic lead compounds are not corrosive or irritating to the skin of rabbits. This is supported by the lack of reports of irritant effects from occupational settings. No symptoms of respiratory irritation were noted in rats during long-term inhalation studies involving lead monoxide.

**Serious Eye Damage/Eye Irritation**

Studies of lead monoxide and similar compounds have shown that sparingly soluble inorganic lead compounds are not corrosive or irritating to the eyes of rabbits.

**Sensitization**

There is no evidence that lead monoxide causes respiratory or skin sensitization.

**Germ Cell Mutagenicity**

The evidence for genotoxic effects of highly soluble inorganic lead compounds is contradictory, with numerous studies reporting both positive and negative effects. Responses appear to be induced by indirect mechanisms, mostly at very high concentrations that lack physiological relevance.

**Carcinogenicity**

An inhalation study of lead monoxide in rats showed that it did not induce, initiate or promote tumors of the lung. However, there is evidence that soluble lead compounds may have a carcinogenic effect, particularly on the kidneys of rats. However, the mechanisms by which this effect occurs are still unclear. Epidemiology studies of workers exposed to inorganic lead compounds have found a limited association with stomach cancer. This has led to the classification by IARC that inorganic lead compounds are probably carcinogenic

to humans (Group 2A).

Chemical Name	ACGIH	IARC	NTP	OSHA
Lead Monoxide/Litharge 1317-36-8	A3	Group 2A	Reasonably Anticipated	X
Powdered Lead 7439-92-1	A3	Group 2A	Reasonably Anticipated	X

#### Reproductive Toxicity

Exposure to high levels of lead monoxide may cause adverse effects on male and female fertility, including adverse effects on sperm quality. Prenatal exposure to lead and its compounds is also associated with adverse effects on fetal development. Pregnancy exposure to lead might cause miscarriage or premature birth, but reports on these effects are old and might have involved higher lead exposures than are currently encountered. Maternal blood lead concentrations above 30 mcg/dL can be associated with detectable abnormalities in cognitive/behavioral testing in infants.

#### STOT - Single Exposure

Lead monoxide has been found to be of relatively low acute toxicity by ingestion, in contact with skin, and by inhalation, with no evidence of any local or systemic toxicity from such exposures.

#### STOT - Repeated Exposure

Lead monoxide is a cumulative poison and may be absorbed into the body through ingestion or inhalation. Inorganic lead compounds have been documented in observational human studies to produce toxicity in multiple organ systems and body function including the hematopoietic (blood) system, kidney function, reproductive function and the central nervous system. Postnatal exposure to lead compounds is associated with impacts on neurobehavioral development in children.

#### Chronic Toxicity

Lead is a cumulative poison. Increasing amounts of lead can build up in the body and may reach a point where symptoms and disabilities occur. Continuous exposure may result in decreased fertility. May cause adverse kidney effects

#### Aspiration Hazard

Due to the physical form of the product, it is not an aspiration hazard.

## 12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a marine pollutant according to DOT.

#### Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Lead Monoxide/Litharge 1317-36-8	0.072-0.388: 72 h Pseudokirchneriella subcapitata, Chlorella kesslerii mg/L ErC50 (pH 5.5-6.5) 0.026-0.080: 72 h Pseudokirchneriella subcapitata, Chlorella kesslerii mg/L ErC50 (pH >6.5-7.5) 0.021-0.050: 72 h Pseudokirchneriella subcapitata, Chlorella kesslerii mg/L ErC50 (pH <7.5-8.5)	0.298: 96 h Pimephales promelas mg/L LC50 static 0.041-0.810: 96 h Pimephales promelas, Oncorhynchus mykiss mg/L LC50 (pH 5.5-6.5) 0.052-3.60: 96 h Pimephales promelas, Oncorhynchus mykiss mg/L LC50 (pH >6.5-7.5) 0.114-3.25: 96 h Pimephales promelas, Oncorhynchus mykiss mg/L LC50 (pH >7.5-8.5) 56000: 96 h Gambusia affinis mg/L LC50 static		0.074-0.656: 48 h Daphnia magna, Ceriodaphnia dubia mg/L LC50 (pH 5.5-6.5) 0.029-1.18: 48 h Daphnia magna, Ceriodaphnia dubia mg/L LC50 (pH >6.5-7.5) 0.026-3.12: 48 h Daphnia magna, Ceriodaphnia dubia mg/L LC50 (pH >7.5-8.5)
Powdered Lead 7439-92-1		1.17: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.44: 96 h Cyprinus carpio mg/L LC50 semi-static 1.32: 96 h Oncorhynchus mykiss mg/L LC50 static		600: 48 h water flea µg/L EC50

**Persistence and degradability**

Not readily biodegradable.

**Bioaccumulation**

While lead metal and its compounds are generally insoluble, its processing or extended exposure in aquatic and terrestrial environments may lead to the release of lead in bioavailable forms. Lead compounds are not particularly mobile in the aquatic environment, but can be toxic for organisms, especially fish, at low concentrations. Water hardness, pH and dissolved organic carbon content are factors which regulate the degree of toxicity. In soil, lead and lead compounds are generally not very bioavailable.

**Mobility**

Lead and lead compounds will partially settle out due to their fairly low solubility and partially dissolve. In soil, lead and lead compounds are generally not very mobile or bioavailable, as they can be strongly absorbed on soil particles, increasingly over time. It also forms complexes with organic matter and clay minerals that limit its mobility. When released into the soil, this material is not expected to leach into groundwater.

**Other adverse effects**

Not available.

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Powdered Lead 7439-92-1		Included in waste streams: F035, F037, F038, F039, K002, K003, K005, K046, K048, K049, K051, K052, K061, K062, K069, K086, K100, K176	5.0 mg/L regulatory level	

This product contains the following substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Lead Monoxide/Litharge 1317-36-8	Toxic
Powdered Lead 7439-92-1	Toxic

### 14. TRANSPORT INFORMATION

**Note:** This product is not regulated for domestic transport by land, air or rail. Under 49 CFR 171.8, individual packages that contain lead metal (<100 micrometers) below the reportable quantity (RQ) are not regulated. Under 49 CFR 171.4, except when transporting aboard a vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packaging transported by motor vehicles, rail cars and aircrafts.

**DOT**

**Proper shipping name** RQ, Environmentally Hazardous Substance, Solid, N.O.S (Lead)  
**Hazard Class** 9  
**Packing Group** III  
**Reportable Quantity (RQ)** 10 lbs  
**Marine pollutant** This product contains a chemical which is listed as a marine pollutant according to DOT.



**TDG**

<b>UN/ID No.</b>	UN 3077
<b>Proper shipping name</b>	Environmentally Hazardous Substance, Solid, N.O.S. (Lead)
<b>Hazard Class</b>	9
<b>Packing Group</b>	III

<b>15. REGULATORY INFORMATION</b>
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**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Lead Monoxide/Litharge - 1317-36-8	1317-36-8	70-100	0.1
Powdered Lead - 7439-92-1	7439-92-1	0-30	0.1

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Lead Monoxide/Litharge 1317-36-8		X		
Powdered Lead 7439-92-1		X	X	

**CERCLA**

This material, as supplied, contains the following substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Powdered Lead 7439-92-1	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ

**US State Regulations****California Proposition 65**

This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.

Chemical Name	California Proposition 65
Powdered Lead - 7439-92-1	Carcinogen Developmental Female Reproductive Male Reproductive
Lead Monoxide/Litharge - 1317-36-8	Developmental

**U.S. State Right-to-Know Regulations**

This product contains the following substances regulated by state right-to-know regulations.

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Lead Monoxide/Litharge	X	X	

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1317-36-8			
Powdered Lead 7439-92-1	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable.

**16. OTHER INFORMATION**

Issue Date 23-Sep-2014  
Revision Date 07-Aug-2018  
Revision Note Not available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**