



Hydromet 50 Powder

SECTION 1. IDENTIFICATION

Product Identifier	Hydromet 50 Powder
Other Means of Identification	Lead Monoxide powder
Product Family	Inorganic metallic oxide
Recommended Use	Mixed with another component to form a corrosion-resistant mortar.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	The Stebbins Engineering and Manufacturing Company, 363 Eastern Boulevard, Watertown, NY, 13601, (315) 782-3000, www.stebbinseng.com
Emergency Phone No.	Chemtrec - Within North America, 1-800-424-9300, 24 hours Stebbins 24 Hour Contact-, 1-315-788-6624
SDS No.	045

SECTION 2. HAZARD IDENTIFICATION

Classification

Carcinogenicity - Category 1B; Reproductive toxicity - Category 1A; Reproductive toxicity - Effects on or via lactation; Specific target organ toxicity (repeated exposure) - Category 1; Aquatic hazard (Acute) - Category 1; Aquatic hazard (Chronic) - Category 1

Label Elements



Signal Word:
Danger

Hazard Statement(s):

- H350 May cause cancer.
- H360 May damage fertility or the unborn child.
- H362 May cause harm to breast-fed children.
- H372 Causes damage to organs (nervous system, blood, kidneys, heart) through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention:

- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust.
- P263 Avoid contact during pregnancy/while nursing.
- P264 Wash hands and skin thoroughly after handling.

- P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

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

P391 Collect spillage.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

Contains heavy metals. Marine pollutant. Hazardous to the environment.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Lead monoxide	1317-36-8	< 80		
Silica, quartz	14808-60-7	< 40		
Silica, cristobalite	14464-46-1	trace amounts		
Silica, tridymite	15468-32-3	trace amounts		

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Call a Poison Centre or doctor if you feel unwell.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Immediately call a Poison Centre or doctor. Rinse mouth with water. Give large quantities of water to drink. If victim is fully conscious, induce vomiting.

Immediate Medical Attention and Special Treatment

Target Organs

Blood, bones, nervous system, kidneys, heart, respiratory system.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

Very toxic lead oxides.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Remove or isolate incompatible materials as well as other hazardous materials. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Keep dust to a minimum. If dust is generated, avoid breathing dust.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Minimize the use of water to prevent environmental contamination.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Store recovered product in suitable containers that are: tightly-covered. Review Section 13 (Disposal Considerations) of this safety data sheet.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Prevent contamination of surfaces that unprotected personnel may use. Avoid repeated or prolonged skin contact. Avoid generating dusts. Avoid breathing in this product. Avoid exposure during pregnancy and while nursing. Avoid release to the environment. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

Conditions for Safe Storage

Store in a closed container. Store in an area that is: cool, dry, well-ventilated. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ACGIH TLV: TWA: 0.05 mg/m³ Pb

OSHA PEL: TWA: 0.05 mg/m³ Pb

NIOSH IDLH: 100 mg/m³ Pb

NIOSH TWA: 0.05 mg/m³ Pb

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. NIOSH = National Institute for Occupational Safety and Health. IDLH = Immediately Dangerous to Life and Health.

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use stringent control measures such as process enclosure to prevent product release into the workplace. Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Provide safety shower in work area, if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear approved safety glasses.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with N100, R100, or P100 filter(s).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Orange powder.

Odour Odourless

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Odour Threshold	Not applicable
pH	Not available
Melting Point/Freezing Point	1626.8 °F (886.0 °C) (melting)
Boiling Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid, gas)	Will not burn.
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not applicable
Relative Density (water = 1)	5.98
Solubility	Practically insoluble (less than 0.1%) in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Bulk Density	373.31 lb/ft3 (5979.87 kg/m3)

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Conditions to Avoid

Incompatible materials.

Incompatible Materials

Reacts violently with: halogens (e.g. chlorine), halogenated compounds (e.g. trichloroethylene), strong oxidizing agents (e.g. perchloric acid), aluminum.

Hazardous Decomposition Products

Toxic chemicals.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; ingestion.

Acute Toxicity

LD50 (Dermal)

LD50 (rat), intraperitoneal: 40 mg Pb / 100 g (lead)

LD50 (mouse), intraperitoneal: 217 mg / kg (lead)

Skin Corrosion/Irritation

Animal tests show mild irritation.

Serious Eye Damage/Irritation

May cause very mild irritation based on information for closely related chemicals.

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STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause nose and throat irritation. At high concentrations may cause lung injury. (Silica, quartz)

May cause lead poisoning. (Lead monoxide)

Skin Absorption

May cause lead poisoning. (Lead monoxide)

Ingestion

Causes lead poisoning.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Causes harmful effects on the nervous system, blood-producing system, digestive system, bones, muscles, kidneys and heart.

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

Carcinogenicity

IARC: Group 2A – Probably carcinogenic to humans. ACGIH®: A3 – Confirmed animal carcinogen. NTP: Reasonably anticipated human carcinogen. (Lead monoxide)

IARC: Group 1 – Carcinogenic to humans. ACGIH®: A2 – Suspected human carcinogen. NTP: Known human carcinogen. (Silica, quartz)

Key to Abbreviations

ACGIH® = American Conference of Governmental Industrial Hygienists. IARC = International Agency for Research on Cancer. NTP = National Toxicology Program.

Reproductive Toxicity

Development of Offspring

May harm the unborn child. Known to cause: decreased weight, learning disabilities.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

Effects on or via Lactation

Can transfer to mother's milk.

Germ Cell Mutagenicity

Conclusions cannot be drawn from the limited studies available.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life, based on acute toxicity tests.

Algae/aquatic plants, ErC50, 72 hours (Pseudokirchneriella subcapita, Chlorella kesslerii): 0.072 - 0.388 mg/L (pH 5.5 - 6.5)

Algae/aquatic plants, ErC50, 72 hours (Pseudokirchneriella subcapita, Chlorella kesslerii): 0.026 - 0.080 mg/L (pH 6.5 - 7.5)

Algae/aquatic plants, ErC50, 72 hours (Pseudokirchneriella subcapita, Chlorella kesslerii): 0.021 - 0.050 mg/L (pH 7.5 - 8.5)

Fish, LC50, 96 hours (Pimephales promelas): 0.298 mg/L

Fish, LC50, 96 hours (Pimephales promelas, Oncorhynchus mykiss): 0.041 - 0.810 mg/L (pH 5.5 - 6.5)

Fish, LC50, 96 hours (Pimephales promelas, Oncorhynchus mykiss): 0.052 - 3.60 mg/L (pH 6.5 - 7.5)

Fish, LC50, 96 hours (Pimephales promelas, Oncorhynchus mykiss): 0.114 - 3.25 mg/L (pH 7.5 - 8.5)

Fish, LC50, 96 hours (Gambusia affinis): 56000 mg/L

Crustacea, LC50, 48 hours (Daphnia magna, Ceriodaphnia dubia): 0.074 - 0.656 mg/L (pH 5.5 - 6.5)

Crustacea, LC50, 48 hours (Daphnia magna, Ceriodaphnia dubia): 0.029 - 1.18 mg/L (pH 6.5 - 7.5)

Crustacea, LC50, 48 hours (Daphnia magna, Ceriodaphnia dubia): 0.026 - 3.12 mg/L (pH 7.5 - 8.5)

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Persistence and Degradability

Does not degrade rapidly based on quantitative tests.

Bioaccumulative Potential

This product or its degradation products are expected to bioaccumulate and may pass through the food chain.

Mobility in Soil

If released into the environment, this product is not expected to move through the soil, based on physical and chemical properties.

Other Adverse Effects

This product contains heavy metals.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water. Store product for disposal as described under Storage in Section 7 of this safety data sheet. Dispose of or recycle empty containers through an approved waste management facility.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	UN3077	RQ, Environmentally Hazardous Substance, Solid, N.O.S. (Lead)	9	III
IATA (Air)		Non-Regulated		
IMO (Marine)	UN3077	Environmentally Hazardous Substance, Solid, N.O.S. (Lead)	9	III
Canadian TDG		Non-Regulated		

Environmental Hazards Marine Pollutant (Lead monoxide)

Special Precautions Please note: Reportable Quantity: 10 lb (Lead)

Transport in Bulk according to International Maritime Organization Instruments

Not applicable

Other Information When this product is shipped in containers of smaller size than the product reportable quantity (RQ), this material is considered non-regulated for transport. This product is regulated if it travels by vessel at any point.

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

CEPA - National Pollutant Release Inventory (NPRI)

Part 1B. (Lead monoxide)

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

Additional USA Regulatory Lists

California Proposition 65: This product contains a chemical known to the state of California to cause birth defects or

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other reproductive harm. (Lead monoxide)

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

Massachusetts Right To Know. (Lead monoxide)

New Jersey Right To Know. (Lead monoxide)

SARA Title III - Section 313: This product contains a chemical or chemicals which are subject to the reporting requirements of the Superfund Amendments and Reorganization Act of 1986 (SARA), and Title 40 of the Code of Federal Regulations, Part 372. SARA Title III - Section 311/312: Acute Health Hazard, Chronic Health Hazard. (Lead monoxide)

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). (Lead monoxide)

SECTION 16. OTHER INFORMATION

NFPA Rating	Health - 2	Flammability - 0	Instability - 0
SDS Prepared By	B.E.R		
Phone No.	(315) 782-3000		
Date of Preparation	September 23, 2015		
Date of Last Revision	May 05, 2020		
Revision Indicators	Revision 4 The following SDS content was changed on May 05, 2020: reviewed and approved		
Key to Abbreviations	ACGIH® = American Conference of Governmental Industrial Hygienists HSDB® = Hazardous Substances Data Bank IARC = International Agency for Research on Cancer NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health NTP = National Toxicology Program OSHA = US Occupational Safety and Health Administration RTECS® = Registry of Toxic Effects of Chemical Substances		
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).		
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