



Material Safety Data Sheet

NFPA 	HMIS <table border="1" style="margin: auto;"> <tr><td style="background-color: #00FFFF;">Health Hazard</td><td style="text-align: center; border: 1px solid black;">1</td></tr> <tr><td style="background-color: #FFCCCC;">Fire Hazard</td><td style="text-align: center; border: 1px solid black;">0</td></tr> <tr><td style="background-color: #FFFF00;">Reactivity</td><td style="text-align: center; border: 1px solid black;">1</td></tr> </table>	Health Hazard	1	Fire Hazard	0	Reactivity	1	Personal Protective Equipment  See Section 15.
Health Hazard	1							
Fire Hazard	0							
Reactivity	1							

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/Trade Name	Zinc Metal, Ganular	Catalog Number(s). XX138, Z1010, Z1015, Z1018, Z1019
		CAS# 7440-66-6
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	RTECS ZG8600000
Commercial Name(s)	Not available.	TSCA TSCA 8(b) inventory: Zinc Metal, Ganular
Synonym	Not available.	CI# Not applicable.
Chemical Name	Zinc	<u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000
Chemical Family	Metal.	
Chemical Formula	Not available.	
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Zinc Metal, Ganular 20 mesh	7440-66-6				100
Toxicological Data on Ingredients	Zinc Metal, Ganular 20 mesh LD50: Not available. LC50: Not available.				

Section 3. Hazards Identification	
Potential Acute Health Effects	Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Non-hazardous in case of inhalation.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact	Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.
Serious Skin Contact	Not available.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Serious Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of oxidizing materials, of acids, of alkalis, of moisture.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of moisture.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	Zinc + NaOH causes ignition. Oxidation of zinc by potassium proceeds with incandescence. Residues from zinc dust /acetic acid reduction operations may ignite after long delay if discarded into waste bins with paper. Incandescent reaction when Zinc and Arsenic or Tellurium, or Selenium are combined. When hydrazine mononitrate is heated in contact with zinc, a flaming decomposition occurs at temperatures a little above its melting point. Contact with acids and alkali hydroxides (sodium hydroxide, potassium hydroxide, calcium hydroxide, etc.) results in evolution of hydrogen with sufficient heat of reaction to ignite the hydrogen gas. Zinc foil ignites if traces of moisture are present. It is water reactive. Produces flammable gases on contacts with water. It may ignite on contact with water or moist air.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Flammable solid that, in contact with water, emits flammable gases. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Cover with dry earth, sand or other non-combustible material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not breathe dust. Keep away from incompatibles such as oxidizing agents, acids, alkalis, moisture.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Keep from any possible contact with water. Do not allow water to get into container because of violent reaction.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Safety glasses. Lab coat. Gloves (impervious).
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Granular solid. Metal solid.)	Odor	Odorless.
Molecular Weight	65.39 g/mole	Taste	Not available.
pH (1% soln/water)	Not applicable.	Color	Bluish-grey
Boiling Point	907°C (1664.6°F)		
Melting Point	419°C (786.2°F)		
Critical Temperature	Not available.		
Specific Gravity	Not available.		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Insoluble in cold water, hot water, methanol, diethyl ether, n-octanol, acetone.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, incompatible materials, moisture
Incompatibility with various substances	Reactive with oxidizing agents, acids, alkalis, moisture. The product reacts violently with water to emit flammable but non toxic gases.
Corrosivity	Not available.

Special Remarks on Reactivity	Incompatible with acids, halogenated hydrocarbons, NH ₄ NO ₃ , barium oxide, Ba(NO ₃) ₂ , Cadmium, CS ₂ , chlorates, Cl ₂ , CrO ₃ , F ₂ , Hydroxylamine, Pb(N ₃) ₂ , MnCl ₂ , HNO ₃ , performic acid, KClO ₃ , KNO ₃ , N ₂ O ₂ , Selenium, NaClO ₃ , Na ₂ O ₂ , Sulfur, Te, water, (NH ₄) ₂ S, As ₂ O ₃ , CS ₂ , CaCl ₂ , chlorinated rubber, catalytic metals, halocarbons, o-nitroanisole, nitrobenzene, nonmetals, oxidants, paint primer base, pentacarbonoyliron, transition metal halides. seleninyl bromide, HCl, H ₂ SO ₄ , (Mg +Ba(NO ₃) ₂ +BaO ₂), (ethyl acetoacetate +tribromoneopentyl alcohol). Contact with Alkali Hydroxides(Sodium Hydroxide, Potassium Hydroxide, Calcium Hydroxide, etc) results in evolution of hydrogen. Ammonium nitrate + zinc + water causes a violent reaction with evolution of steam and zinc oxide. Some may react vigorously or explosively on contact with water.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Ingestion.
Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not available.
Other Toxic Effects on Humans	Slightly hazardous in case of skin contact (irritant), of ingestion. Non-hazardous in case of inhalation.
Special Remarks on Toxicity to Animals	Lowest Published Lethal Dose: LDL [Duck] - Route: Oral; Dose: 388 mg/kg
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: May cause skin irritation. Dermal exposure to zinc may produce leg pains, fatigue, anorexia, and weight loss. Eyes: May cause eye irritation. Ingestion: May be harmful if swallowed. May cause digestive tract irritation with tightness in throat, nausea, vomiting, diarrhea, malaise, loss of appetite, abdominal pain. fever, and chills. May affect behavior/central nervous system and autonomic nervous system with ataxia, lethargy, staggering gait, mild derrangement in cerebellar function, lightheadness, dizziness, irritability, muscular stiffness, and pain. May also affect blood. Inhalation: Zinc in the granular form does not pose an inhalation hazard. Inhalation of zinc dust or fumes may cause respiratory tract and mucous membrane irritation with cough and chest pain. It can also cause "metal fume fever", a flu-like condition characterized appearance of chills, headached fever, maliase, fatigue, sweating, extreme thirst, aches in the legs and chest, and difficulty in breathing. A sweet taste may also be present in metal fume fever, as well as a dry throat, aches, nausea, and vomiting, and pale grey cyanosis.

Section 12. Ecological Information

Ecotoxicity	Ecotoxicity in water (LC50): 0.09-0.125 mg/l 96 hours [Algae (Pseudokirchneriella subcapitata)]. 0.11-0.271 mg/l 72 hours [Algae (Pseudokirchneriella subcapitata)]. 0.211-3.05 96 hours [Fish (Pimephales promelas)]. 0.24-0.59 mg/l 96 hours [Fish (Oncorhynchus mykiss)]. 0.45-30 mg/l 96 hours [Fish (Cyprinus carpio)]. 3.5 mg/l 96 hours [Fish(Lepomis macrochirus)]. 0.139-0.908 mg/l 96 hours [Daphnia (daphnia magna)].
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal Waste must be disposed of in accordance with federal, state and local environmental control regulations.

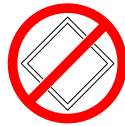
Section 14. Transport Information

DOT Classification Not a DOT controlled material (United States).

Identification Not applicable.

Special Provisions for Transport Not applicable.

DOT (Pictograms)



Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

New York release reporting list: Zinc Metal, Ganular
 Pennsylvania RTK: Zinc Metal, Ganular
 Michigan critical material: Zinc Metal, Ganular
 Massachusetts RTK: Zinc Metal, Ganular
 New Jersey: Zinc Metal, Ganular
 California Director's List of Hazardous Substances: Zinc Metal, Ganular
 TSCA 8(b) inventory: Zinc Metal, Ganular
 SARA 313 toxic chemical notification and release reporting: Zinc Metal, Ganular
 CERCLA: Hazardous substances.: Zinc Metal, Ganular: 1000 lbs. (453.6 kg)

California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 231-175-3).
 Canada: Listed on Canadian Domestic Substance List (DSL).
 China: Listed on National Inventory.
 Japan: Not listed on National Inventory (ENCS).
 Korea: Listed on National Inventory (KECI).
 Philippines: Listed on National Inventory (PICCS).
 Australia: Listed on AICS.


Other Classifications

WHMIS (Canada) Not controlled under WHMIS (Canada).
DSCL (EEC) R15- Contact with water liberates extremely flammable gases. S7/8- Keep container tightly closed and dry.
 R17- Spontaneously flammable in air.

HMIS (U.S.A.)

Health Hazard	1
Fire Hazard	0
Reactivity	1
Personal Protection	E

National Fire Protection Association (U.S.A.)

Health  Flammability
 Reactivity
 Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe)
(Pictograms)



TDG (Canada)
(Pictograms)



ADR (Europe)
(Pictograms)



Protective Equipment



Gloves.



Lab coat.



Not applicable.
Safety glasses.

Section 16. Other Information

MSDS Code Z3021

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen on 5/15/2012.

Verified by Sonia Owen.

Printed 7/2/2012.

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.