



Ritchey Metals Company • 30 Georgetown Road • Canonsburg, PA 15317

MATERIAL SAFETY DATA SHEET

Special High Grade Zinc

Identification and Use

Chemical Name	Zinc
Trade Name	SHG
Chemical Formula	Zn

Manufacturer

Mailing Address	Ritchey Metals Company, Inc. 30 Georgetown Road Canonsburg, PA 15317
Contact Numbers:	Phone: (724) 745-7700 Fax: (724) 745-8040

Hazardous Ingredients of Material

		<u>OSHA PEL</u>	<u>CAS</u>
Zinc	(99.995% typical)	5.0 mg/m ³ -Fume	7440-66-6
		15.0 mg/m ³ -Dust	

<u>Physical Data for Material</u>	
Appearance	Solid
Odor and Appearance	No Odor – Silvery Grey Color
Odor Threshold(p.p.m)	None
Specific Gravity	7.1
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Evaporation Rate	Not Applicable
Solubility in Water	Insoluble
% Volatile (by volume)	Not Applicable
Boiling Point	907°C
Freezing Point	420°C
pH	Not Applicable
Density (g/ml)	Not Available
Coefficient of water/oil distribution	Not Applicable
<u>Fire and Explosion Hazard of Material</u>	
Flash Point (°C) and Method	Not Applicable
Flammability	Metal ingot not flammable, Dust or Powder may be flammable or explosive.
Lower Explosive Limit	Not Applicable
Upper Explosive Limit	Not Applicable
Auto Ignition Temp.	Not Applicable
Means of Extinction	Do not use water or foam. Use dry chemical, sand or special powder.

Special Procedures	Self contained respirators should be worn when fighting fires.
TDG Flammability Classification	Not Applicable
Hazardous Combustion Products	Zinc Oxide Fume
Sensitivity to Chemical Impact	None
Rate of Burning	None
Explosive Power	None
Sensitivity to Static Discharge	Yes, as dust or powder.
<u>Reactivity Data</u>	
Stability	Metal in Ingot form is stable.
Incompatibility	Sulfur, Halogens and strong Oxidizing agents, mineral acids and bases.
Reactivity	Acids and Alkalis will generate hydrogen gas. Accumulated hydrogen gas is flammable and explosive.
Hazardous Decomposition Products	Heating of this product may generate zinc oxide fumes. Generally over 900°C.
<u>Toxicological Properties of Product</u>	
Acute	Contact of zinc fume or dust may cause local irritation to the eyes. Inhalation of freshly generated zinc fume may cause zinc fume fever resulting in flu-like symptoms.
Chronic	Special High Grade Zinc is relatively non toxic and has no history of causing chronic effects.
Routes of Entry	Eye contact, inhalation and ingestion.
LD ₅₀ of Product (Specify Species and Route)	Not Available

Irritancy of Product	No reports found
Exposure limits of Product	Not Available
LD ₅₀ of Product (Specify Species)	Not Available
Sensitization to Product	No reports found
Synergistic Materials	No reports found
Carcinogenicity, Reproductive effects, Teratogenicity, Mutagenicity	Does not meet WHMIS criteria for these effects.
<u>Preventative Measures</u>	
Precautions in Handling and Storage	Keep dust levels low. Keep in dry, cool, well ventilated area away from heat.
Personal Protective Equipment	If fume or dust is generated, use an approved fume/dust respirator and eye protection.
Gloves (Specify)	Heat Resistant
Respiratory (Specify)	Approved Respirator
Eye (Specify)	With molten metal use glasses or face shield.
Footwear (Specify)	Safety Boots
Clothing (Specify)	Suitable to protect hot metal splash
Other (Specify)	Avoid use of contact lenses in dusty areas
Engineering Controls (e.g. ventilation, enclosed process, specify)	Local ventilation when fume is generated.
Leak and Spill Procedure	Collect spilled material and return to process or supplier.
Waste Disposal	As above for spilled material.
Handling Procedures and Equipment	Only dry metal should be added to molten bath
Storage Requirements	Store in dry covered area. Do not store near acids.

Special Shipping Information	Not Applicable
<u>First Aid Measures</u>	
Skin	Remove contaminated clothing. Wash affected areas with soap and water.
Eye	Flush with water. If irritation persists, seek medical attention.
Inhalation	If exposed to excessive fume, remove to fresh air administer oxygen if needed. Keep patient warm and seek medical assistance.
Ingestion	Generally not considered toxic if ingested.
General advice	Practice good personal hygiene. Wash hands before eating or smoking.
<u>Preparation Date of M.S.D.S.</u>	
Additional Information/Comments	This Material Safety Data Sheet is offered solely for your information, consideration and investigation.
Disclaimer	Ritchey Metals Company provides no warranties either expressed or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.
Prepared by	Ritchey Metals Company
Approval Date	Reapproved January 2010