

MATERIAL SAFETY DATA SHEET

Zinc Selenide

Identification and Information on Ingredients

Material code:	ZnSe	
Material name:	Zinc Selenide	
Chemical family:		
CAS# ZnSe:	1315-09-9; RTECS#	
Molecular formula:	ZnSe	
Molecular weight:	144.35	
	Zinc:	50% Atomic 45% Weight
	Selenium:	50% Atomic 55% Weight
Reported in EPA TSCA Inventory		
NFPA Rating (scale 0 to 4)	Health = 2 Fire = 0 Reactivity = 0	
ZnSe Ingredients:	100 %	

Physical Data

Boiling point:	
Melting point:	1525 °C
Density:	5.42 g/cm ³
Solubility in H ₂ O:	Insoluble
Odor:	Odorless
Appearance:	Yellow crystalline

Fire and Explosion Hazard Data

Flash point:	unknown
Autoignition temperature:	unknown
Flammable limits in air, % by volume:	No data
Extinguishing media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special fire fighting procedures:	Wear self-contained breathing apparatus for fire fighting if necessary. If without risk move material out of fire area. Do not allow run-off from fire fighting to enter drains or water courses.

Health Hazard Data

OSHA (PEL): 0.2 mg/m³

AOGIH (TWA): 0.2 mg/m³

A. Animal Toxicity

No Data.

B. Effects of Exposure

Ingestion:	Toxic if swallowed
Skin contact:	May cause skin irritation
Eye contact:	Like any foreign body, particles can cause mechanical irritation.
Inhalation:	May cause respiratory tract irritation

Medical conditions, if any, aggravated by the chemical: individuals with lung, liver, kidney and blood disorders.

Most likely routes of entry: Ingestion

C. Emergency and First Aid Procedures:

Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth.
Skin contact:	Take off contaminated clothing and shoes immediately. After contact with skin, wash immediately with plenty of water. Wash contaminated cloth ing before reuse.
Eye contact:	Flush eyes with water as a precaution.
Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
Effects of overexposure:	High oral and respiratory toxicity. Irritant to skin, eyes, and mucous membranes. May cause cancer.

Reactivity Data

Stability:	Stable
Conditions to avoid:	Prolonged exposure to moist air may cause oxidation.
Incompatibility:	Strong acids, Strong oxidizing agents
Hazardous decomposition products:	Zinc/zinc oxides, Selenium/selenium oxides
Hazardous polymerization:	Will not occur.



www.spectral-systems.com

35 Corporate Park Drive
Hopewell Junction, NY 12533
845 896 2200
Info@spectral-systems.com



Spill or Leak Procedures

Steps to be taken if material is released or spilled:

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

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.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Waste disposal method:

Consult local, state and federal regulations for proper disposal of Zinc Selenide.

Special Protection Information

Respiratory protection:

None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. When dusty conditions are encountered, wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use.

Ventilation-Local Exhaust:

Fume Hood

Protective gloves:

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 and good laboratory practices. Wash and dry hands.

Eye protection:

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Transportation Information: US DOT

UN-Number: 3283 Class: 6.1 Packing group: II

Proper shipping name: Selenium compound, solid, n.o.s.

Marine pollutant: No

IMDG

UN-Number: 3283 Class: 6.1 Packing group: II EMS-No: F-A, S-A

Proper shipping name: SELENIUM COMPOUND, SOLID, N.O.S.

Marine pollutant: No

IATA

UN-Number: 3283 Class: 6.1 Packing group: II

Proper shipping name: Selenium compound, solid, n.o.s.

Regulatory Information:

OSHA Hazards

Target Organ Effect, Toxic by inhalation., Toxic by ingestion

DSL Status

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

Zinc selenide CAS-No.:1315-09-9

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

Zinc selenide CAS-No.: 1315-09-9
Revision Date 2007-07-01

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

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Revision Date 2007-07-01

NEW JERSEY RIGHT TO KNOW COMPONENTS

Zinc selenide CAS-No.: 1315-09-9
Revision Date 2007-07-01

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Comments:

THE DATA PRESENTED HEREIN ARE BELIEVED TO BE ACCURATE BUT ARE IN NO WAY GUARANTEED. WE ASSUME NO LIABILITY IN CONNECTION WITH ANY USE FOR THE PRODUCTS DISCUSSED, AND IT MAKES NO WARRANTY IN THAT RESPECT. IT CANNOT BE ASSUMED THAT ALL SAFETY MEASURES ARE INDICATED HEREIN OR THAT OTHER OR ADDITIONAL MEASURES MAY NOT BE REQUIRED. THE USER, THEREFORE, MUST ASSUME FULL RESPONSIBILITY, BOTH AS TO PERSONS AND AS TO PROPERTY, FOR THE USE OF THESE MATERIALS.

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