

Material Safety Data Sheet

1. Chemical Product and Company Identification

Material Name	Zinc Selenide
Version #	01
CAS #	Mixture
Item #	09934409B
Product Use	Optical material
Synonym(s)	ZnSe * Infracran * Lasertran
Identification Of The Company/Undertaking	PerkinElmer Life and Analytical Sciences 710 Bridgeport Avenue Shelton, CT 06484 Technical Support 800-762-4000
Emergency Telephone Number	CHEMTREC 800-424-9300 Emergency Phone 800-762-4000

2. Composition / Information on Ingredients

Non-hazardous component(s)	CAS #	Percent
Zinc Selenide	Mixture	> 60

3. Hazards Identification

Emergency Overview

No hazards resulting from the material as supplied. Toxic by inhalation and if swallowed. Danger of cumulative effects.

Potential Short Term Health Effects

Skin

Not expected to be a primary skin irritant.

Eyes

Contact with eyes may cause irritation.

Inhalation

May cause irritation of respiratory tract. Toxic by inhalation.

Ingestion

Small amounts (a tablespoonful) swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. Do not ingest. May be harmful if swallowed. Toxic if swallowed.

Specific hazards

Avoid contact with the skin. Toxic by inhalation and if swallowed. Danger of cumulative effects.

4. First Aid Measures

General advice

If you feel unwell, seek medical advice (show the label where possible). Keep warm and in a quiet place. In case of shortness of breath, give oxygen. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Take off contaminated clothing and shoes immediately. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

First Aid

Skin contact

If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Rinse with water. Immediately take off all contaminated clothing. For skin contact, wash immediately with soap and water. Get medical attention if irritation develops or persists.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Flush eyes with water as a precaution. If irritation persists get medical attention.

Inhalation

Oxygen or artificial respiration if needed. No specific treatment is necessary since this material is not likely to be hazardous by inhalation. Call a physician or Poison Control Center immediately. Move to fresh air. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not use mouth-to-mouth method if victim inhaled the substance.

Ingestion

If swallowed, seek medical advice immediately and show this container or label. No need for first aid is anticipated if material is swallowed. If ingestion of a large amount does occur, seek medical attention. Have victim rinse mouth thoroughly with water. If material is ingested, immediately contact a physician or poison control center. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not use mouth-to-mouth method if victim ingested the substance.

Notes to physician

Symptoms may be delayed.

5. Fire Fighting Measures

Hazardous Combustion Products

Fire may produce irritating, corrosive and/or toxic gases.

Suitable extinguishing media

Small Fires: Dry chemical, CO₂, water spray or regular foam.

Large Fires: Water spray, fog or regular foam.

Special protective equipment for firefighters

In the event of fire, wear self contained breathing apparatus.

6. Accidental Release Measures

Evacuation Procedures

Keep unnecessary personnel away. Stay upwind. Ventilate closed spaces before entering. Keep out of low areas. Local authorities should be advised if significant spillages cannot be contained.

Personal precautions

Use personal protective equipment. Keep people away from and upwind of spill/leak. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods for cleaning up

Dam up. Soak up with inert absorbent material. Shovel into suitable container for disposal. Soak up with inert absorbent material and dispose of as hazardous waste. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Dike far ahead of liquid spill for later disposal. Never return spills in original containers for re-use.

Containment Procedures

Stop the flow of material, if this is without risk. Prevent entry into waterways, sewers, basements or confined areas. Dike the spilled material, where this is possible.

7. Handling and Storage

Handling

Keep away from heat and sources of ignition. Handle and open container with care. When using, do not eat, drink or smoke. Do not breathe vapors or spray mist. Do not breathe gas/fumes/vapor/spray. Do not empty into drains.

Storage

Use care in handling/storage.

8. Exposure Controls / Personal Protection

Exposure Limit Values

Exposure Controls

Engineering measures to reduce exposure

Provide adequate ventilation.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke.

Respiratory protection

In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Wear a positive-pressure supplied-air respirator. No personal respiratory protective equipment normally required.

Hand protection

gloves

Eye protection

goggles If splashes are likely to occur, wear: Avoid contact with eyes.

Skin and body protection

Wear suitable protective clothing.

9. Physical & Chemical Properties

General Information

Form

Solid.

Color

dark amber

Odor

none

10. Chemical Stability & Reactivity Information**Stability**

Stable at normal conditions. No hazards to be especially mentioned.

Incompatibility

None known.

Further information

Stable at normal conditions

11. Toxicological Information**Routes Of Exposure**

Inhalation. Ingestion.

Local effects

Toxic by inhalation and if swallowed.

Further information

This product has no known adverse effect on human health.

12. Ecological Information**Ecological Information**

This material is not expected to be harmful to aquatic life. Components of this product are hazardous to aquatic life.

Other adverse effects

Ecological injuries are not known or expected under normal use. Harmful to aquatic life.

13. Disposal Considerations**Disposal Instructions**

In accordance with local and national regulations. Dispose in accordance with all applicable regulations. Do not allow this material to drain into sewers/water supplies. This material and its container must be disposed of as hazardous waste. Do not dispose of waste into sewer.

14. Transportation Information**US DOT****CTDG****Other Information**

Not classified as dangerous in the meaning of transport regulations.

15. Regulatory Information**US Federal Regulations**

OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.

CERCLA/SARA Hazardous Substances - Not applicable.

International Regulations

The product is classified and labelled in accordance with EC directives or respective national laws.

State Regulations

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

Canada Regulations

The product is classified and labelled in accordance with EC directives or respective national laws.

16. Other Information

Disclaimer

The information provided in this Material Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer Life and Analytical Sciences shall not be held liable for any damage resulting from handling or from contact with the product. 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.