SAFETY DATA SHEET

ZINC SULPHIDE (ZINC SULFIDE) MULTISPECTRAL

According to Regulation (EC) No.1907/2006 (REACH)

Revision 2026 : Issued 6th July 2026

1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

1.1. PRODUCT IDENTIFIERS:

Product Name: Zinc Sulphide / Zinc Sulfide

Synonyms, Trade Names: Zinc Sulfide, ZnS Multispectral, ZnS Cleartran© (Trade mark of Dow Chemicals.)

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified Uses: Optical Material for manufacture of Optical Components.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: CRYSTRAN LTD, 1 Broom Road Business Park, Poole, Dorset UK BH12 4PA

☎ +44 1202 307650

1.4. EMERGENCY TELEPHONE NUMBER

Emergency Phone: ☎ +44 1202 307650 (Monday to Friday 08:30 to 17:00 GMT)

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department. The attending health professional will be able to contact the National Poisons Information Service.

2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Harmful if swallowed, possibly liberating toxic hydrogen sulphide in contact with gastric juices. Particular care must be exercised when machining and creating dust or particles. Harmful with skin contact. Particular care must be exercised when machining and creating dust or particles.

2.2. LABEL ELEMENTS

Signal Word: Warning

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled

Precautionary Statements:

P262	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when handling this product

Response:

P301+P310	IF SWALLOWED: Immediately call a poison centre or doctor. Rinse mouth.
P304+P312	IF INHALED: Call a poison centre or doctor/physician if you feel unwell.

2.3. OTHER HAZARDS

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

Component Name	CAS number	%	EC number (EINECS)	EU index	UN number
Zinc Sulphide	1314-98-3	100%	215-251-3	-	-

4. FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

GENERAL: Consult a doctor for specific advice.

EYES: Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention.

SKIN: Wash thoroughly with soap and water. Dry area with clean towel. Remove contaminated clothing and wash clothing before re-use.

INHALATION: Remove to fresh air. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may administer oxygen. Keep affected person warm and at rest. Obtain medical attention.

INGESTION: Do not induce vomiting. Wash out mouth thoroughly with water and give 2 cups of water to drink. Do not give carbonated drinks. Never give anything by mouth to an unconscious person. Obtain medical attention immediately.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Refer to Section 2.2 and to section 11.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No Data.

5. FIRE FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

This product does not burn.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

5.3. May evolve toxic fumes in a fire, decomposing at temperatures greater than 400°C in air. At temperatures greater than 800°C in inert atmosphere, the material sublimes into zinc & sulphur fumes.

5.4. ADVICE FOR FIREFIGHTERS

Use breathing apparatus if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear suitable protective clothing & equipment as listed under Section 8. Avoid making dust.

6.2. ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage. Do not let product enter drains. Do not discharge to the environment.

6.3. METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Take up and containerize for proper disposal. Containerize any cleaning materials used for proper disposal.

6.4. REFERENCE TO OTHER SECTIONS

Dispose as in Section 13.

7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING:

Keep away from heat. Avoid contact with skin and eyes. Protect against physical damage. Avoid generating dust.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep away from foodstuffs. Keep away from acids and strong bases.

7.3. SPECIFIC END USES

Optical Material for Manufacture of Optical Components.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL) = 10 mg/m^3 Total particulate, long term, 8 hour Time Weighted Average (TWA)

8.2. EXPOSURE CONTROLS

Protective gloves made of PVA are required. Use of a laboratory coat is suggested. Safety goggles or safety glasses with side shields are required if there is any possibility of chipping or dust creation. Respirators must be worn when the threshold limit is exceeded. Provide adequate general mechanical ventilation, and local exhaust ventilation. Wash hands immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE :	Clear white translucent shapes, no odour.	FLASH POINT:	Not Applicable
BOILING POINT (760mm Hg)	Sublimes	FLAMMABILITY:	Not Applicable
MELTING POINT:	1830°C (1185°C sublimes)*	EXPLOSIVE PROPERTIES:	Not Applicable
SPECIFIC GRAVITY:	4.08 g/mL	VAPOUR PRESSURE:	Negligible at 25°C
SOLUBILITY IN WATER:	Insoluble	pH IN AQUEOUS SOLUTION:	Not determined

9.2. OTHER SAFETY INFORMATION

* Oxidises at 300°C, exhibits plastic deformation at 500°C and dissociates at about 700°C

10. STABILITY AND REACTIVITY

10.1. REACTIVITY
Reacts with strong mineral acids and strong oxidising materials

10.2. CHEMICAL STABILITY
Stable under normal conditions of storage and use

10.3. POSSIBILITY OF HAZARDOUS REACTIONS
None known

10.4. CONDITIONS TO AVOID
Can react with oxidising agents. Avoid strong acids

10.5. INCOMPATIBLE MATERIALS
Strong Mineral Acids. Strong oxidising materials

10.6. HAZARDOUS DECOMPOSITION PRODUCTS
Decomposition product is Hydrogen Sulphide gas.

11. TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Harmful by ingestion and inhalation of dust, with a cumulative effect. Particular care must be exercised when machining and creating dust or particles. Inhalation of dust may irritate respiratory system.

TOXIC DOSE - LD50 > 15000 mg/kg **CARCINOGENICITY:** No evidence of carcinogenic properties.

MUTAGENICITY/TERATOGENICITY: No evidence of reproductive effects.

12. ECOLOGICAL INFORMATION

12.1. TOXICITY
No environmental Hazard anticipated.

12.2. PERSISTENCE AND DEGRADABILITY
No Data

12.3. BIOACCUMULATIVE POTENTIAL
No Data

12.4. MOBILITY IN SOIL
No Data

12.5. RESULTS OF PBT AND vPvB ASSESSMENT
Not required or conducted

12.6. OTHER ADVERSE AFFECTS
None known

13. DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

Chemical residues are generally classified as special waste, and are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company.

14. TRANSPORT INFORMATION

14.1. Not subject to transport regulations.

15. REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

TCSA: Listed in the TCSA Inventory
SARA (TITLE 313): Zinc Sulphide – Not listed.
WHMIS: Not listed under the Canadian Workplace Hazardous Materials Information System
EU CLP: Not classified
OSHA HCS 2012: Not classified

16. OTHER INFORMATION

REVISION DATE: 6th July 2026 ©2026 Crystran Ltd.

The above information is believed to be correct but does not purport to be all inclusive and must be used only as a guide.

CRYSTRAN LTD
1, Broom Road Business Park, Poole, Dorset, UK BH12 4PA TEL: +44 1202 307650
Email: sales@crystran.co.uk www.crystran.co.uk Registered in England No.2863378