



Safety Data Sheet (SDS)

Revision / Review Date: 3/30/15

1. Chemical Product and Company Identification

Product Name:	CRYTEX HD OT 20
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
SDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	Polymeric Sulfur
Molecular Formula:	Not available
Molecular Weight via GPC, Mn:	Not available
Product Use:	Sulfur
OSHA Status:	Not available
CAS No:	9035-99-8

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

<u>Warning:</u>	Not available.
<u>Signs and Symptoms of Exposure:</u>	Pain, redness, swelling of skin or eyes. Drying of the skin. Sore nose and throat. Coughing and sneezing.
<u>Primary Routes of Entry:</u>	Eyes and inhalation.
<u>Medical Conditions Generally Aggravated by Exposure:</u>	Skin disorders. Respiratory disorders.
<u>Emergency Overview:</u>	May irritate the eyes. May irritate the skin. May irritate the lungs. Burning of sulphur emits toxic fumes, which in turns can cause suffocation. Dust suspended in air ignites easily.
<u>Eye Contact:</u>	May cause irritation and inflammation. May cause abrasive injury.
<u>Skin Contact:</u>	May irritate the skin. May cause inflammation.
<u>Ingestion:</u>	Ingestion may cause irritation to mucous membranes.
<u>Inhalation:</u>	May cause irritation of respiratory tract. Inhalation of dust may cause uneasiness and breathing discomfort.
<u>NFPA Rating:</u>	Health-1, Fire-1, Stability-0

<u>HMIS Hazard Ratings:</u>	Health- 1, Flammability - 1, Reactivity - 0
<u>HMIS limitation statement:</u>	The HMIS hazard ratings numbers are meant to give a quick indication of the relative hazards associated with the product. All of the information contained in the SDS should be consulted to assist with the safe handling of this material.
<u>Principal Hazardous Components:</u>	Sulfur, ACGIH TLV, 3 mg/m ³ (1), 10 mg/m ³ (3), OSHA PEL, 5 mg/m ³ (1), 15 mg/m ³ (3)

3. Composition / Information on Ingredients

Weight Percent / Typical	Component Identity	CAS Registry Number
100%	Polymeric Sulfur	9035-99-8

4. First Aid Measures

<u>Inhalation:</u>	Move to fresh air. If symptoms persist, call a physician.
<u>Eyes:</u>	Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.
<u>Skin:</u>	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use.
<u>Ingestion:</u>	Rinse mouth. Drink plenty of water. Get medical attention.

5. Fire-Fighting Measures

<u>Suitable Extinguishing Media:</u>	Water, Water spray, Foam, Dry powder, Carbon dioxide (CO ₂).
<u>Special Fire Fighting Procedures:</u>	Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
<u>Hazardous Combustion Products:</u>	Combustion products may cause delayed pulmonary edema.
<u>Unusual fire and explosion hazards:</u>	Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Burning sulfur emits highly toxic gases.

6. Accidental Release Measures

<u>Steps to be taken in case material is Spilled:</u>	Wear impervious personal protective equipment to protect eyes, skin and clothing. Prevent further leakage or spillage if safe to do so. Scoop, sweep or shovel solids and place in a closed container for proper disposal. Do not vacuum. Do not spread spilled product with water. Clean contaminated surface thoroughly. Avoid dust formation. Fine dust dispersed in air may
---	---

ignite. Isolate area and remove sources of friction, impact, heat, low level electrical current, and RF energy.

Environmental Disposal Information:

Do not flush into surface water or sanitary sewer system. Should not be released into the environment.

Waste Disposal:

Take up mechanically and collect in suitable container for disposal.

7. Handling and Storage

Empty Containers:

Not available.

Precautions to be taken in handling:

Use personal protection recommended . Use only in well-ventilated areas. Do not breathe vapors/dust. Avoid contact with skin and eyes. Keep container closed when not in use. Avoid dust formation. To reduce potential for static discharge, use proper bonding and grounding procedures. Eliminate all ignition sources. Use only non-sparking tools. Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling and before eating or drinking. Remove and wash contaminated clothing before re-use.

Storage:

Store in a cool/low-temperature, well-ventilated, dry place away from heat and ignition sources. Keep container tightly closed. Keep away from direct sunlight. Keep away from oxidizing agents, strongly acid or alkaline materials and amines.

8. Exposure Controls / Personal Protection

Exposure Controls:

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Respiratory Protection:

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Ventilation:

Ensure adequate ventilation, especially in confined areas.

Hand protection:

Wear gloves.

Eye Protection:

Safety glasses with side-shields.

Skin and Body Protection:

Impervious lightweight protective clothing.

Other Precautions:

Wash with soap and water before eating, drinking or using toilet facilities. Clean contaminated clothing before reuse.

Decontamination Facilities:

Eye bath, washing facilities (sinks / showers)

9. Physical and Chemical Properties

<u>Physical Form:</u>	Solid
<u>Appearance & Odor:</u>	Yellow Powder/ Faint
<u>Specific Gravity:</u>	1.6 at 20°C.
<u>Softening Point, R&B:</u>	Not available.
<u>Solubility in Water:</u>	Not available.
<u>Flash Point, TAG CC F:</u>	157 °C / 315 °F
<u>Percent Volatiles (by weight):</u>	Not available.
<u>Evaporation Rate (Water ~ l):</u>	Not available.
<u>Vapor Pressure (mm Hg):</u>	<0.01mBar (20°C)
<u>Vapor Density (Air ~ l):</u>	Not available.
<u>Boiling Point (°F) Initial:</u>	444 °C 831 °F
<u>Auto ignition Temperature, °C:</u>	232 °C / 450 °F
<u>Flammable Limits, %(V):</u>	Upper limit > 2000 g/m ³ , Lower limit 30 g/m ³
<u>Melting point:</u>	90-119 °C / 194-246 °F

10. Stability and Reactivity

<u>Stability:</u>	This product is stable under normal conditions.
<u>Incompatibility (Materials to Avoid):</u>	Strong oxidizing agents, amines and strong bases.
<u>Conditions to Avoid:</u>	Heat, sparks, open flame, high temperatures and electric arc from static discharges. Avoid generation of dust.
<u>Hazardous Polymerization:</u>	Hazardous polymerization will not occur.
<u>Hazardous decomposition products:</u>	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition can lead to release of irritating gases and vapors. Burning produces obnoxious and toxic fumes. Fumes. Sulfur oxides.

11. Toxicological Information

This material is not listed as a carcinogen or potential carcinogen by NTP, IARC, or OSHA.

<u>OSHA Permissible Exposure Limit:</u>	Sulfur, 5 mg/m ³ (1), 15 mg/m ³ (3)
<u>ACGIH Threshold Limit Value:</u>	Sulfur, 3 mg/m ³ (1), 10 mg/m ³ (3)

<u>Oral:</u>	LD50 >4000 mg/kg LD50 Rat: >2000mg/kg.
<u>Dermal:</u>	LD50 Rabbit:>2000mg/kg
<u>Inhalation:</u>	LC50 Rat:>9.23mg/l

12. Ecological Information

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

<u>Toxicity to algae:</u>	EC50: > 100 mg/l NOEC: > 5 µg/l
<u>Toxicity to daphnia and other aquatic invertebrates:</u>	EC50: > 5 µg/l NOEC: > 5 µg/l Daphnia ECO (24hr): >10,000mg/l
<u>Toxicity to Fish:</u>	LC-50 (96hr):866mg/l

13. Disposal Considerations

Reclaim or Dispose of material in accordance with all applicable local, state, and federal regulations. Do not re-use empty containers.

14. Transport Information

<u>D.O.T. Shipping Name:</u>	Not regulated.
<u>Air - ICAO (international Civil Aviation Organization):</u>	Not regulated.
<u>Sea - IMDG (International Maritime Dangerous Goods):</u>	Not regulated.
<u>TDG:</u>	Not regulated.
<u>IATA:</u>	Not regulated.

15. Regulatory Information

All components of this material are on the following inventories: TSCA (US), DSL (Canada), EINECS/ELINCS (EU), ENCS (Japan), IECSC (China), KECL (Korea), PICCS (Philippines), and AICS (Australia).

<u>SARA 313:</u>	Does not contain any chemicals that need to be reported.
<u>SARA 311/312:</u>	Not available.
<u>New Jersey RTK Label Information:</u>	Polymeric Sulfur, CAS No. 9035-99-8

Pennsylvania RTK Label Information:
California Proposition 65:

Polymeric Sulfur, CAS No. 9035-99-8
This product does not contain any Proposition 65 chemicals.

16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.