

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

El Paso Corporation
and its subsidiaries
1001 Louisiana Street
Houston, Texas 77002

Information: (713) 420-2600
CHEMTREC: (800) 424-9300

Product Name: Hydrogen Sulfide

Last Revision: 06/26/07

MSDS Number: A0020.msdx

Date Prepared: 10/27/85

Synonyms: Sulfurated Hydrogen, H₂S, Stink Damp, Sulfur
Hydride Sewer Gas

Product Description: Hydrogen Sulfide

2. COMPOSITION & INFORMATION ON INGREDIENTS

Components(s)						
Product/ Components	CAS No.	Wt%	Occupational Exposure Limits			Units
			OSHA ⁽¹⁾	ACGIH ⁽¹⁾	NIOSH ⁽²⁾	
Hydrogen Sulfide	7783-06-4	100	10 15 ^{STEL(3)}	10 15 ^{STEL}	10 ^{Ceiling}	ppm

⁽¹⁾8-hour TWA unless otherwise specified.

⁽²⁾10-hour TWA unless otherwise specified.

⁽³⁾Vacated 1989 PEL. The manufacturer has included this data for
informational purposes since these values were vacated in 1992.

3. HAZARD IDENTIFICATION

Note: This product has not been tested by El Paso Corporation
to determine its specific health hazards. Therefore, the
information provided in this section includes health
hazard information on the product components.

Carcinogenicity: NTP No IARC Monographs No OSHA Regulated No

Potential Health Effects From Overexposure

Acute Effects:

Eyes: Highly irritating.

Skin: Liquid moderately irritating.

Inhalation: Hydrogen Sulfide is a severe pulmonary irritant.
High concentrations, even briefly, may cause
dizziness, drowsiness, tremors, pulmonary edema,
and death. Acts as a chemical asphyxiant by
paralyzing the respiratory center. Lower

concentrations will produce symptoms such as headache, dizziness, excitement, staggering gait, diarrhea and dysuria followed sometimes by bronchitis or bronchopneumonia.

Ingestion: Unlikely to occur.

Chronic Effects:

Repeated exposures will result in headache, inflammation of the conjunctivae and eyelids, digestive disturbances, loss of weight, and disorders of nervous and cardiovascular system.

Additional Medical and Toxicological Information:

May aggravate pre-existing lung ailments, gastrointestinal, cardiovascular and nervous disorders. Contact with full strength or dilute formulations of this product or exposure above and below exposure limits may aggravate pre-existing dermatitis or respiratory disorders in certain individuals.

4. FIRST AID MEASURES

Eye Contact: Flush thoroughly with water for at least 15 minutes. Get medical attention.

Skin Contact: Flush area with water.

Inhalation: Remove to fresh air. Apply artificial respiration if not breathing. Get medical attention.

Ingestion: N/A.

5. FIRE FIGHTING MEASURES

Flash Point: 76°F (Closed Cup)

Flammable Limits in Air % by Vol.:

Lower: 4.3

Upper: 44

Autoignition Temperature: 500°F

Extinguishing Media: Water spray

NFPA Ratings: Health: 4 Flammability: 4 Reactivity: 0

General Hazard:

Hydrogen Sulfide gas can flow along surfaces for considerable distances, reach an ignition source and flash back. A dangerous fire hazard; a moderate explosion hazard.

Fire Fighting Instructions:

Use water spray to cool exposed cylinders or containers. Extinguish fire by stopping the flow of gas. Firefighters should wear self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE

Remove source of heat or ignition including internal combustion engines and power tools. Stop gas flow. Keep people away. Stay upwind and warn people downwind of possible explosion. Wear self-contained breathing apparatus if conditions warrant.

7. HANDLING & STORAGE

Store in tightly closed containers in a dry cool place, away from incompatible materials or sources of heat and ignition. Ground and bond all transfer and storage equipment to prevent static sparks. Empty containers may contain residue (liquid/vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks or other sources of ignition; they may explode and cause injury or death.

Other: Odor sensation lost usually within a few minutes @ 100 ppm. Other gases and vapors that are present may mask odor.

8. EXPOSURE CONTROL, PERSONAL PROTECTION

Eye Protection: Use full-face respirator where contact above occupational exposure limits may occur.

Skin Protection: Wear gloves impervious gloves when contact with liquid may occur.

Inhalation: Extreme health hazard; may be fatal if inhaled. Use approved supplied-air respiratory protective equipment for entry into areas of unknown concentrations and to contain leaks, entry into tanks, vessels or other confined spaces or in situations where airborne concentrations may exceed occupational exposure levels.

Ventilation: Provide adequate general and local ventilation: (1) to maintain airborne chemical concentrations below applicable exposure limits, (2) to prevent accumulation of

flammable vapors and formation of explosive atmospheres, and (3) to prevent formation of oxygen deficient atmospheres, especially in confined spaces. [Note: this product may displace oxygen in enclosed areas.]

9. PHYSICAL & CHEMICAL PROPERTIES

Boiling Point @ 1 atm: -77°F	Melting Point: -122°F
Vapor Pressure @ 77 °F: 17.6 atm	Vapor Density(Air=1): 1.2
% Solubility in H ₂ O @ 68 °F: 2.9	pH: N/A
Specific Gravity @ 68 °F & 1 atm: 1.2	Evaporation Rate: 13.9
% Volatile by Volume : 100	Molecular Wt.: 34.1
Viscosity(method, temp.): N/A	
Appearance: Colorless Gas.	
Odor: Offensive (rotten eggs)	

10. STABILITY & REACTIVITY

Stability: Stable under normal conditions of use.

Hazardous Polymerization: Will not occur.

Conditions to Avoid/Incompatibilities: It can be dangerously reactive with strong nitric acid, sodium peroxide or other oxidizing agents. Isolate from sources of ignition.

Hazardous Decomposition Products: Sulfur dioxide.

11. TOXICOLOGICAL INFORMATION

IHL-RAT LC50 444 ppm.

IHL-HMN LC50 800 ppm (5 min).

IHL-MUS LC50 634 ppm/1h.

IHL-GPG LCLO 1 mg/m³/8h

12. ECOLOGICAL INFORMATION

Very toxic to aquatic organisms.

13. DISPOSAL INFORMATION

Dispose through a licensed waste disposal company. Follow applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

Identification Number: UN 1053

Hazard Class: 2.3 (Poisonous gas)

15. REGULATORY INFORMATION

EPA SARA TITLE III

Section 302 EPCRA Extremely Hazardous Substances (EHS)

Product Component	CAS No.	Wt%	RQ, lb	TPQ, lb
Hydrogen Sulfide	7783-06-4	100	100	500

Section 304 CERCLA Hazardous Substances

Product Component	CAS No.	Wt%	RQ, lb
Hydrogen Sulfide	7783-06-4	100	100

Section 311/312 Hazard Categorization

Acute:	Chronic:	Fire:	Pressure:	Reactive:
X	X	X	X	X

Section 313 EPCRA Toxic Substances

Product Component	CAS No.	Wt. %
Hydrogen Sulfide	7783-06-4	100

Key: RQ = Reportable Quantity
 TPQ = Threshold Planning Quantity of EHS

CALIFORNIA PROPOSITION 65 WARNING

Chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm may be found in crude oil and petroleum products. Although it is possible to sufficiently refine a crude oil or its end products to remove the potential for cancer, we are advising that one or more of the listed chemicals may be present in some detectable quantities. Read and follow directions and use care when handling crude oil and petroleum products.

16. OTHER INFORMATION

THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF THIS COMPANY'S KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE INDICATED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY THEMSELVES AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR HIS THEIR PARTICULAR USE.

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