	MSDS **MATERIAL SAFETY DATA SHEET**	**HYDROGEN SULFIDE** MSDS# 106 Effective: May 11, 2010

Manufacturer/Supplier: Hunt Oil Company 1900 North Akard Street Dallas, Texas 75201-2300 214-978-8000	**Emergency Health Information:** **CHEMTREC** (for transport emergencies):	(713) 420-2600 800-424-9300 (USA) 202-483-7616 (Outside the USA)

Important Components:	Component	CAS #	Range % by Wt.		
	Hydrogen sulfide	7783-06-4	100 ppm	TLV-TWA (8 hr):	10 ppm
				TLV-STEL(15min):	15 ppm

Warning Statement:	Danger! Extremely flammable. Vapor causes eye irritation. **NFPA Codes: (Health;2) (Flammability;4) (Reactivity;0), Chronic Hazard**
Appearance and odor:	Colorless gas; rotten egg odor.

HEALTH HAZARD INFORMATION

EYE

Effect: Vapor causes eye irritation.

First Aid: Flush eyes with plenty of water.

Protection: Wear chemical goggles.

SKIN

Effect: No significant health hazards identified.

First Aid: Wash exposed skin with soap and water.

Protection: None required; however, use of protective clothing and gloves is good industrial practice.

INHALATION

Effect: High vapor concentrations are harmful or fatal, if inhaled. Causes respiratory irritation. See Toxicology section.

First Aid: If worker is overcome, rescuer must wear supplied air breathing apparatus to remove worker to uncontaminated area. Give artificial respiration if not breathing. Give oxygen if breathing is difficult. Get immediate medical attention.

Protection: Use with adequate ventilation. If ventilation is inadequate, use supplied air respirator.

INGESTION

Effect: No significant health hazards identified.

First Aid: Not applicable.

FIRE AND EXPLOSION INFORMATION

Flashpoint:	Flammable gas.
UEL: 46%	LEL: 4.0%
Auto-ignition Temperature:	500°F (260°C)
Extinguishing Media:	Stop flow of gas, if possible, if not, allow to burn. Use water fog to keep fire-exposed containers cool and to protect men effecting the shut-off.
Unusual Fire and Explosion Hazards:	Product gives off vapors that are heavier than air which can travel considerable distances to a source of ignition and flashback.
Fire-fighting Equipment:	Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.
Precautions:	Keep away from ignition sources (e.g., heat, sparks and open flames). Do not cut, puncture, or weld on or near this container. Ground and bond all lines and equipment.
Hazardous Combustion Products:	Burns to form sulfur dioxide.

REACTIVITY INFORMATION

Dangerous Reactions:	Avoid chlorine, fluorine and other strong oxidizers.
Conditions to Avoid:	Keep away from ignition sources (e.g. heat, sparks and open flames).
Stability:	Burning can be started easily.

CHEMICAL AND PHYSICAL PROPERTIES

Solubility in Water:	Moderate, 1% to 10%
Specific Gravity (Water = 1):	Not determined.
pH:	Not determined
Vapor Pressure:	Not determined.
Vapor Density:	1.19
Melting Point:	Not determined
Boiling Point:	-76°F (-60°C)
Hazardous Decomposition	
Hazardous Polymerization	

STORAGE AND ENVIRONMENTAL PROTECTION

Handling:	Ground and bound all lines and equipment. Remove or shut off all sources of ignition. Use appropriate protective equipment. Increase ventilation, if possible. Use water spray to disperse vapors. Do not breathe vapors. Keep container closed. Use with adequate ventilation.
Storage Requirements:	Outside storage is recommended. Store in cool, dry, well ventilated area. Store away from heat, ignition sources, and open flame in accordance with applicable regulations.
Special Precautions:	Avoid strong oxidizers.
Disposal:	Enclosed-controlled incineration is recommended unless directed otherwise by applicable ordinances. The container for this product can present explosion or fire hazards, even when emptied! To avoid risk of injury, do not cut, puncture, or weld on or near this container. Since the emptied containers retain product residue, follow label warnings even after container is emptied.

TOXICOLOGICAL INFORMATION

Hydrogen sulfide (H_2S) and other toxic gases can be given off at room temperature. When heated, hazardous levels of these gases can be emitted. At low concentrations, hydrogen sulfide is a respiratory irritant. At concentrations above 600 ppm, brief exposures (minutes) to hydrogen sulfide can be lethal. At these concentrations, hydrogen sulfide may not be detected by smell.

No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).

ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

TRANSPORTATION INFORMATION

DOT Proper Shipping Name	Hydrogen Sulfide, liquefied
DOT Hazard Class and Packing Group	2.3
DOT Identification Number	UN 1053
DOT Shipping Label	POISON GAS, FLAMMABLE GAS

Additional Marking Requirement: "Inhalation Hazard"
If net weight of product > 100 pounds, the container must be also marked with the letters "RQ".

REGULATORY INFORMATION

Hydrogen sulfide is listed under the accident prevention provisions of section 112(r) of the Clean Air Act (CAA) with a threshold quantity (TQ) of 10,000 pounds.

SARA TITLE III NOTIFICATIONS AND INFORMATION	Hydrogen sulfide is listed as an extremely hazardous substance (EHS) subject to state and local reporting under Section 304 of SARA Title III (EPCRA). The presence of hydrogen sulfide in quantities in excess of the threshold planning quantity (TPQ) of 100 pounds requires certain emergency planning activities to be conducted. Releases of hydrogen sulfide in quantities equal to or greater than the reportable quantity (RQ) of 100 pounds are subject to reporting to the National Response Center under CERCLA, Section 304 SARA Title III.

NOTICE

This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our Company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.