



Safety Data Sheet

SPECIALTY - HYD SUL MM DIM SUL
5PPM BAL METHANE

Central McGowan
123 Roosevelt Road, St. Cloud, MN, 56301
800-569-1322

Section 1: Product and Company Identification

Central McGowan
123 Roosevelt Road, St. Cloud, MN, 56301

Product Code: **SPECIALTY - HYD SUL MM DIM SUL 5PPM BAL METHANE**

Synonyms: SPG CH4 5PPM H2S CH3SH C2H6S AS

Recommended Use:

Usage Restrictions:

Section 2: Hazards Identification



Danger

Hazard Classification:	Chronic Aquatic Toxicity (Category 1) Gases Under Pressure Flammable (Category 1) Eye Effects (Category 2.A) Acute Aquatic Toxicity (Category 1)
Hazard Statements:	Very toxic to aquatic life with long lasting effects. Contains gas under pressure; may explode if heated Extremely flammable gas Causes serious eye irritation Very toxic to aquatic life
Precautionary Statements Prevention:	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wash thoroughly after handling. Wear eye protection/face protection.
Response:	Eliminate all ignition sources if safe to do so. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
Storage:	Protect from sunlight. Store in well-ventilated place.

Section 3: Composition/Information on Ingredients

	CAS #	Concentration
Methyl Mercaptan	74-93-1	0.0005ppm
Dimethyl Sulfide	75-18-3	0.0005ppm
Hydrogen Sulfide	06-04-7783	0.0005ppm
Methane	74-82-8	Balance

	Chemical Substance	Chemical Family	Trade Names
Methyl Mercaptan	METHYL MERCAPTAN	Thiols	METHANETHIOL; THIOMETHANOL; MERCAPTOMETHANE; METHYL SULFHYDRATE; THIOMETHYL ALCOHOL; RCRA U153; STCC 4905520; UN 1064; CH4S
Dimethyl Sulfide	DIMETHYL SULFIDE	Sulfides	(CH3)2S;(Methylsulfanyl)methane;2-Thiopropene;Dimethyl monosulfide; Dimethyl sulphide; Dimethyl thiomethane; dimethylmonosulfide; dimethylmonosulphide
Hydrogen Sulfide	HYDROGEN SULFIDE	Inorganic gases	HYDROGEN SULFIDE (H2S); DIHYDROGEN MONOSULFIDE; DIHYDROGEN SULFIDE; HYDROSULFURIC ACID; SULFUR DIHYDRIDE; SULFURETED HYDROGEN; SULFUR HYDRIDE; STINK DAMP; SEWER GAS; RCRA U135; UN 1053; H2S
Methane	METHANE, COMPRESSED GAS	Hydrocarbons, Aliphatic, Saturated	FIRE DAMP; MARSH GAS; METHYL HYDRIDE; NATURAL GAS; METHANE; UN 1971; R50; CH4

Section 4: First Aid Measures

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Methyl Mercaptan	If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.	Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.
Dimethyl Sulfide	Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).	Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.	Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.	Treat symptomatically and supportively.
Hydrogen Sulfide	Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.	Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Methane	Wash exposed skin with soap and water.	Flush eyes with plenty of water.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.

Section 5: Fire Fighting Measures

	Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Methyl Mercaptan	Carbon dioxide, alcohol resistant foam Let burn unless leak can be stopped immediately. Large fires: Use regular foam or flood with fine water spray.	Sulfur oxides, hydrogen sulfide	<ul style="list-style-type: none"> ▪ Any self-contained breathing apparatus with a full facepiece. Use a chemical protective suit. ▪ Any self-contained breathing apparatus with a full facepiece. Use a chemical protective suit.
Dimethyl Sulfide	Use foam, dry chemical, or carbon dioxide. Water may be ineffective. Do NOT use straight streams of water.	Sulfur oxides, hydrogen sulfide gas, carbon monoxide and carbon dioxide, mercaptans, methane and hydrogen sulfide	<ul style="list-style-type: none"> ▪ Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Use a chemical protective suit. ▪ Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Use a chemical protective suit.
Hydrogen Sulfide	Let burn unless leak can be stopped immediately. Large fires: Use regular foam or flood with fine water spray.	Sulfur oxides	<ul style="list-style-type: none"> ▪ Any self-contained breathing apparatus with a full facepiece. ▪ Protective material types: butyl rubber, polyvinyl chloride (PVC), neoprene
Methane	Carbon dioxide, regular dry chemical Large fires: Use regular foam or flood with fine water spray.	Carbon monoxide, carbon dioxide, water	<ul style="list-style-type: none"> ▪ Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece. ▪ Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece.

Section 6: Accidental Release Measures

	Personal Precautions	Environmental Precautions	Methods for Containment
Methyl Mercaptan	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. Ventilate closed spaces before entering. Evacuation radius: 150 feet. For tank, rail car or tank truck: 800 meters (1/2 mile). Do not get water directly on material. Do not touch spilled material.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Remove sources of ignition. Reduce vapors with water spray.
Dimethyl Sulfide	Keep unnecessary people away, isolate hazard area and deny entry. Do not touch spilled material.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.
Hydrogen Sulfide	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. Ventilate closed spaces before entering. Evacuation radius: 150 feet. For tank, rail car or tank truck: 800 meters (1/2 mile). Do not touch spilled material.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Remove sources of ignition. Reduce vapors with water spray. Do not get water directly on material.
Methane	Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.
	Methods for Cleanup	Other Information	

	Methods for Cleanup	Other Information
Methyl Mercaptan	Dig holding area such as lagoon, pond or pit for containment. Dike for later disposal. Absorb with sand or other non-combustible material. Absorb with activated carbon. Collect spilled material using mechanical equipment.	Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).
Dimethyl Sulfide	Small spills: Absorb with sand or other noncombustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal.	None
Hydrogen Sulfide	Collect runoff for disposal as potential hazardous waste. Dike for later disposal. Absorb with sand or other non-combustible material. Add an alkaline material (lime, crushed limestone, sodium bicarbonate, or soda ash).	Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).
Methane	Not available	NOT AVAILABLE

Section 7: Handling and Storage

	Handling	Storage
Methyl Mercaptan	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Notify State Emergency Response Commission for storage or use at amounts greater than or equal to the TPQ (U.S. EPA SARA Section 302). SARA Section 303 requires facilities storing a material with a TPQ to participate in local emergency response planning (U.S. EPA 40 CFR 355.30).	Grounding and bonding required. Keep separated from incompatible substances.
Dimethyl Sulfide	Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125F (52C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.	Do not get liquid in eyes, on skin, or clothing. Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Open valve slowly. Close cylinder valve after each use; keep closed even when empty. If valve is hard to open, discontinue use and contact your supplier.
Hydrogen Sulfide	Store and handle in accordance with all current regulations and standards. Protect from physical damage. Store outside or in a detached building. Store in a cool, dry place. Store in a well-ventilated area. Avoid contact with light. Grounding and bonding required. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Notify State Emergency Response Commission for storage or use at amounts greater than or equal to the TPQ (U.S. EPA SARA Section 302). SARA Section 303 requires facilities storing a material with a TPQ to participate in local emergency response planning (U.S. EPA 40 CFR 355.30). Keep separated from incompatible substances.	Subject to handling regulations: U.S. OSHA 29 CFR 1910.119.
Methane	Store and handle in accordance with all current regulations and standards. Grounding and bonding required. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances.

Section 8: Exposure Controls/Personal Protection

	Exposure Guidelines
Methyl Mercaptan	METHYL MERCAPTAN: 10 ppm (20 mg/m ³) OSHA ceiling 0.5 ppm (1 mg/m ³) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 0.5 ppm ACGIH TWA 0.5 ppm (1 mg/m ³) NIOSH recommended ceiling 15 minute(s)
Dimethyl Sulfide	DIMETHYL SULFIDE: 10 ppm ACGIH TWA (cutaneous absorption danger)

	Exposure Guidelines
Hydrogen Sulfide	HYDROGEN SULFIDE: 20 ppm OSHA ceiling 50 ppm OSHA peak 10 minute(s) (once if no other measurable exposure occurs) 10 ppm (14 mg/m ³) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 15 ppm (21 mg/m ³) OSHA STEL (vacated by 58 FR 35338, June 30, 1993) 10 ppm ACGIH TWA 15 ppm ACGIH STEL 10 ppm (15 mg/m ³) NIOSH recommended ceiling 10 minute(s) TLV-TWA: 1ppm Upper respiratory irritation (ACGIH)
Methane	METHANE, COMPRESSED GAS: ALIPHATIC HYDROCARBON GASES ALKANE (C1-C4): 1000 ppm ACGIH TWA METHANE: No occupational exposure limits established. ALIPHATIC HYDROCARBON GASES ALKANE (C1-C4): 1000 ppm ACGIH TWA

Engineering Controls

Handle only in fully enclosed systems.

	Eye Protection	Skin Protection	Respiratory Protection
Methyl Mercaptan	Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	For the gas: Wear appropriate chemical resistant clothing. For the liquid: Wear appropriate protective, cold insulating clothing. Wear insulated gloves.	Any self-contained breathing apparatus with a full facepiece. Use a chemical protective suit.
Dimethyl Sulfide	Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves.	Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Use a chemical protective suit.
Hydrogen Sulfide	Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves.	Any self-contained breathing apparatus with a full facepiece.
Methane	Eye protection not required, but recommended.	Protective clothing is not required. Wear appropriate chemical resistant gloves.	Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece.

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

	Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor
Methyl Mercaptan	Gas	Clear	Colorless	N/A	Gas	Rotten cabbage, putrid
Dimethyl Sulfide	Liquid	Clear	Colorless to yellow	N/A	Liquid	Irritating odor
Hydrogen Sulfide	Gas	Colorless	Colorless	N/A	Gas	Rotten egg odor
Methane	Gas	Colorless	Colorless	N/A	Gas	Odorless

	Taste	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits
Methyl Mercaptan	N/A	<0 F (<-18 C) (OC)	Not available	Not available	Not available	0.218
Dimethyl Sulfide	N/A	-48 deg C	IC		205 deg C (401 deg F)	19.70%
Hydrogen Sulfide	N/A	Flammable	Not available	Not available	500 F (260 C)	45.50%
Methane	Tasteless	-369 F (-223 C)	Not available	724.44 (log = 2.87) (estimated from water solubility)	999 F (537 C)	15%

	Lower Explosive Limits	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity
Methyl Mercaptan	0.039	43 F (6 C)	-189 F (-123 C)	1535 mmHg @ 21.1 C	1.66 (Air=1)	Not applicable
Dimethyl Sulfide	2.20%	38 deg C @ 760 mm Hg	-98 deg C	502 mm Hg @ 25 deg C	2.14 (air=1)	0.840 g/ml
Hydrogen Sulfide	3.90%	-78 to -77 F (-61 to -60.3 C)	-123 F (-86 C)	15200 mmHg @ 25 C	1.2 (Air=1)	1.192

	Lower Explosive Limits	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity
Methane	5%	-260 F (-162 C)	-297 F (-183 C)	760 mmHg @ -161 C	0.555 (Air=1)	Not applicable

	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity	Molecular Weight
Methyl Mercaptan	2.4% @ 20 C	Not applicable	0.0021 ppm	Not applicable	Not available	48.11
Dimethyl Sulfide	Insoluble	Not available	2.5 ppb	Not available	0.28 cP @ 20 C	62.13
Hydrogen Sulfide	2.58-2.9% @ 20 C	4.5-<7 (saturated solution)	0.13 ppm	Not applicable	0.0128 cP @ 25 C	34.08
Methane	3.5% @ 17 C	Not applicable	Not available	Not applicable	0.01118 cP @ 27 C	16.04

	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
Methyl Mercaptan	C-H3-S-H	1.999 g/L @ 20 C	Not available	100%	Not applicable	Soluble : Alcohol, ether, petroleum ether, naphtha
Dimethyl Sulfide	C2H6S	Not available	Not available	Not available	Not available	Not available
Hydrogen Sulfide	H2-S	1.539 g/L @ 0 C	Not available	Not available	Not applicable	Soluble : Carbon disulfide, alcohol, ether, glycerol, gasolines, kerosene, crude oil, alkali solutions
Methane	C-H4	0.717 g/L @ 0 C	Not available	Not applicable	Not applicable	Soluble : Alcohol, ether, benzene, organic solvents

Section 10: Stability and Reactivity

	Stability	Conditions to Avoid	Incompatible Materials
Methyl Mercaptan	Contact with water or moist air may form flammable and/or toxic gases or vapors.	Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Avoid inhalation of material or combustion by-products. Keep out of water supplies and sewers.	Acids, metals, combustible materials, halo carbons, reducing agents, metal oxides, peroxides, oxidizing materials, nitric acid, mercury oxide, calcium hypochlorite
Dimethyl Sulfide	Stable at normal temperatures and pressure.	Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep out of water supplies and sewers.	Oxidizing materials, bases, reducing materials
Hydrogen Sulfide	Stable at normal temperatures and pressure.	Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Avoid inhalation of material or combustion by-products. Keep out of water supplies and sewers.	Combustible materials, metals, oxidizing materials, halogens, metal oxides, metal salts, bases, rust, oxidants, oxygen, copper powder, acetaldehyde, silver fulminate
Methane	Stable at normal temperatures and pressure.	Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.	Halogens, oxidizing materials, combustible materials

	Hazardous Decomposition Products	Possibility of Hazardous Reactions
Methyl Mercaptan	Oxides of sulfur	Will not polymerize.
Dimethyl Sulfide	Oxides of carbon, oxides of sulfur	Will not polymerize.
Hydrogen Sulfide	Oxides of sulfur	Will not polymerize.
Methane	Oxides of carbon	Will not polymerize.

Section 11: Toxicology Information

Acute Effects

	Oral LD50	Dermal LD50	Inhalation
Methyl Mercaptan	LC50, Inhalation, rat = 675 ppm.	Not available	Irritation, nausea, vomiting, wheezing, irregular heartbeat, headache, symptoms of drunkenness, bluish skin color, suffocation, lung congestion, blood disorders, kidney damage, liver damage, convulsions, coma
Dimethyl Sulfide	535-3,700 mg/kg (rat)	>5000 mg/kg (rat)	Causes respiratory tract irritation.
Hydrogen Sulfide	444 ppm inhalation-rat LC50	Irritation 0.000125 ppm/5 hour(s) eyes-human	Irritation, lack of sense of smell, sensitivity to light, nausea, vomiting, difficulty breathing, headache, drowsiness, dizziness, disorientation, tremors, visual disturbances, suffocation, lung congestion, internal bleeding, heart damage, nerve damage, brain damage, coma, death
Methane	Not available	Not available	Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, drowsiness, fatigue, dizziness, disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma

	Eye Irritation	Skin Irritation	Sensitization
Methyl Mercaptan	Irritation, blurred vision	Irritation, blisters	Acute toxicity, Category 3, inhalation; H331: Toxic if inhaled. Hazardous to the aquatic environment, Acute Category 1; H400: Very toxic to aquatic life. Hazardous to the aquatic environment, Chronic Category 1; H410: Very toxic to aquatic life with long lasting effects.
Dimethyl Sulfide	Irritation	Irritation	Eye irritation, Category 2; H319: Causes serious eye irritation.
Hydrogen Sulfide	Irritation, sensitivity to light, visual disturbances	Irritation liquid: frostbite	Acute toxicity, Category 2, inhalation; H330: Fatal if inhaled. Specific Target Organ Toxicity (single exposure), Category 3; H335: May cause respiratory irritation. Hazardous to the aquatic environment, Acute Category 1; H400: Very toxic to aquatic life
Methane	No information on significant adverse effects	No information on significant adverse effects	Difficulty breathing

Chronic Effects

	Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Methyl Mercaptan	Not available	Available.	Not available	No data
Dimethyl Sulfide	Not listed by ACGIH, IARC, NTP, or CA Prop 65.	Not available	Not available	No data
Hydrogen Sulfide	Not available	Not available	Available.	No data
Methane	Not available	Not available	Not available	No data

Section 12: Ecological Information

Fate and Transport

	Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Methyl Mercaptan	Fish toxicity: 500 ug/L 5 hour(s) (Mortality) Spotfin shiner (<i>Notropis spilopterus</i>) Invertebrate toxicity: 50000 ug/L 48 hour(s)	Not available	Not available	Not available

	(Mortality) Midge (Chironomus sp) Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available			
Dimethyl Sulfide	Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Highly volatile from water.	Accumulates very little in the bodies of living organisms.	Leaches through the soil or the sediment at a moderate rate.
Hydrogen Sulfide	Fish toxicity: Acute LC50 7 ug/L Fresh water Fish - Fathead minnow - Pimephales promelas - FRY 96 hours; 14.9 ug/L 96 hour(s) LC50 (Mortality) Fathead minnow (Pimeph) Invertebrate toxicity: 9730 ug/L 1.5 hour(s) (Mortality) Mediterranean mussel (Mytilus galloprovincialis) Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Highly toxic to aquatic life.	Not available	Not available
Methane	Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Relatively non-persistent in the environment. Moderately volatile from water.	Accumulates very little in the bodies of living organisms.	Not expected to leach through the soil or the sediment.

Section 13: Disposal Considerations

Methyl Mercaptan	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U153.
Dimethyl Sulfide	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.
Hydrogen Sulfide	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U135.
Methane	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

DOT Information For This Mixture

Shipping Name	Compressed gas, flammable, n.o.s. (Methyl Mercaptan, Dimethyl Sulfide, Hydrogen Sulfide, Methane)
UN Number	UN1954
Hazard Class	2.1
Hazard Information	FLAMMABLE GAS

Individual Component Information

	Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Methyl Mercaptan	Methyl mercaptan	UN1064	2.3	Not applicable	2.3; 2.1	Forbidden	Forbidden	Toxic-Inhalation Hazard Zone C
Dimethyl Sulfide	Dimethyl Sulfide	UN1164	3	II	3	N/A	N/A	N/A
Hydrogen Sulfide	Hydrogen sulfide	UN1053	2.3	Not applicable	2.3; 2.1	Forbidden	Forbidden	Toxic-Inhalation Hazard Zone B
Methane	Methane, compressed	UN1971	2.1	Not applicable	2.1	Forbidden	150 kg	N/A

Canadian Transportation of Dangerous Goods

	Shipping Name	UN Number	Class	Packing Group / Risk Group
Methyl Mercaptan	Methyl mercaptan	UN1064	2.3; 2.1	Not applicable
Dimethyl Sulfide	Dimethyl Sulfide	UN1164	3	II
Hydrogen Sulfide	HYDROGEN SULFIDE; or HYDROGEN SULPHIDE	UN1053	2.3; 2.1	Not applicable
Methane	Methane, compressed	UN1971	2.1	Not applicable

Section 15: Regulatory Information

U.S. Regulations

	CERCLA Sections	SARA 355.30	SARA 355.40
Methyl Mercaptan	100 LBS RQ	500 LBS TPQ	100 LBS RQ
Dimethyl Sulfide	Not regulated.	Not regulated.	Not regulated.
Hydrogen Sulfide	100 LBS RQ	500 LBS TPQ	100 LBS RQ
Methane	Not regulated.	Not regulated.	Not regulated.

SARA 370.21

	Acute	Chronic	Fire	Reactive	Sudden Release
Methyl Mercaptan	Yes	No	Yes	No	Yes
Dimethyl Sulfide	Yes	No	Yes	No	No
Hydrogen Sulfide	Yes	No	Yes	No	Yes
Methane	Yes	No	Yes	No	Yes

SARA 372.65

Methyl Mercaptan	METHYL MERCAPTAN: Administrative stay issued Aug. 22, 1994
Dimethyl Sulfide	Not regulated.
Hydrogen Sulfide	HYDROGEN SULFIDE: Administrative stay issued Aug. 22, 1994
Methane	Not regulated.

OSHA Process Safety

Methyl Mercaptan	5000 LBS TQ
Dimethyl Sulfide	Not regulated.
Hydrogen Sulfide	1500 LBS TQ
Methane	Not regulated.

State Regulations

	CA Proposition 65
Methyl Mercaptan	Not regulated.
Dimethyl Sulfide	Not regulated.
Hydrogen Sulfide	Not regulated.
Methane	Not regulated.

Canadian Regulations

	WHMIS Classification
Methyl Mercaptan	ABD1
Dimethyl Sulfide	B2, D2B
Hydrogen Sulfide	A, B1, D1A, D2B.
Methane	A, B1

National Inventory Status

	US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Methyl Mercaptan	Listed on inventory.	METHANETHIOL CAS NUMBER: 74-93-1 SECTION 4	Not determined.
Dimethyl Sulfide	Listed on inventory.	Not listed.	Listed on DSL.
Hydrogen Sulfide	Listed on inventory.	Not listed.	Listed on inventory.
Methane	Listed on inventory.	Not listed.	Listed on inventory.

Section 16: Other Information

	NFPA Rating
Methyl Mercaptan	HEALTH=3 FIRE=4 REACTIVITY=0
Dimethyl Sulfide	HEALTH=2 FIRE=3 REACTIVITY=0
Hydrogen Sulfide	HEALTH=4 FIRE=4 REACTIVITY=0
Methane	HEALTH=0 FIRE=4 REACTIVITY=0

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard