

INTERNATIONAL_GASES_AND_CHEMICALS_LTD

MATERIAL SAFETY DATA SHEETS

DATE: 11/10/00

SUPPLIER ADDRESS: SPEEDWELL RD
PARKHOUSE EAST
NEWCASTLE-U-LYME

EMERGENCY PHONE: (178) 256-5556
NUMBER

1. CHEMICAL PRODUCT

PRODUCT NAME: METHYL MERCAPTAN

SYNONYMS: Methanethiol, Thiomethanol,
Mercaptomethane, Methyl Sulphydrate

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient Name	Formula	CAS#	Concentration	Exposure Limits (PPM)			
				ACGIH TLV	OSHA PEL	MAC	Other STEL
METHYL MERCAPTAN (c) = ceiling	CH4S	74-93-1	99+%	0.5	10 (c)	0.5	NE

Note: NE = NONE ESTABLISHED

3. HAZARD IDENTIFICATION

*** EMERGENCY OVERVIEW ***

Poisonous, flammable liquid and gas under pressure.
Can cause irritation to eyes, skin, and respiratory tract.
May be fatal if inhaled.
May cause central nervous system damage.
Can form explosive mixtures with air.

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Inhalation

ACUTE EFFECTS: Vapor can be toxic by inhalation causing irritation to the respiratory system, eyes, and mucous membrane. Skin contact may cause irritation. Symptoms include nausea, dizziness, vomiting, sore throat, coughing, shortness of breath, fatigue, and mucous membrane irritation of the lips, mouth and nose. High concentrations may affect the central nervous system causing muscle weakness, tremors, narcosis, convulsions, unconsciousness, paralysis of the respiratory tract, cyanosis, coma and death.

CHRONIC EFFECTS: Blood and lung effects.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: None known

OTHER EFFECTS OF OVEREXPOSURE: None

CARCINOGENICITY (US Only):

NTP - No

IARC MONOGRAPHS - No

OSHA REGULATED - No

Continued ...

4. FIRST AID MEASURES

INHALATION: Immediately remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.

EYE CONTACT: Immediately flush with copious amounts of water for at least 15 minutes.

SKIN CONTACT: Immediately flush with copious amounts of water for at least 15 minutes while removing contaminated clothing.

INGESTION: None

IN EVENT OF EXPOSURE, CONSULT A PHYSICIAN

NOTE TO PHYSICIAN: None

5. FIRE FIGHTING MEASURES

FLASH POINT: -17.78 deg. C

AUTOIGNITION TEMPERATURE: N/Av

FLAMMABLE LIMITS: Vol. %

LOWER: 3.9

UPPER: 21.8

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, or alcohol foam.

SPECIAL FIRE FIGHTING INSTRUCTION AND EQUIPMENT: Wear self-contained breathing apparatus and full protective clothing. Keep fire exposed cylinders cool with water spray. If possible, stop the product flow.

HAZARDOUS COMBUSTION PRODUCTS: Toxic carbon monoxide and sulfur dioxide may be given off during combustion.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Cylinder rupture may occur under fire conditions. Emits toxic fumes under fire conditions. Vapors may travel a considerable distance to the source of ignition and flash back.

6. ACCIDENTAL RELEASE MEASURES

CLEAN UP PROCEDURES: Evacuate and ventilate area. Remove sources of ignition and combustibles. Contain spills and prevent run off into sewers and waterways. Remove leaking cylinder to exhaust hood or safe outdoor area.

SPECIALIZED EQUIPMENT: Absorb small spills using a solid adsorbent such as vermiculite. Neutralize using a liquid house bleach, calcium or sodium hypochlorite (5% aqueous solution). DO NOT use concentrated bleach.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in well ventilated areas. Keep valve protection cap on cylinders when not in use.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide adequate general and local exhaust ventilation to maintain concentrations below exposure and flammable limits.

PERSONAL PROTECTION

EYE/FACE PROTECTION: Safety glasses

SKIN PROTECTION: Protective gloves.

RESPIRATORY PROTECTION: In case of leakage, use self-contained breathing apparatus.

OTHER PROTECTIVE EQUIPMENT: Safety shoes when handling cylinders.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless

ODOR: Rotten cabbage odor

PHYSICAL STATE: Gas

VAPOR PRESSURE: @21.1 deg.C: 1535 mm Hg

VAPOR DENSITY (AIR=1): 1.66

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BOILING POINT (C): 6.8
SOLUBILITY IN WATER: 20 deg.C: 2.4%
SPECIFIC GRAVITY (H2O=1): @20 deg.C:
0.868
EVAPORATION RATE: Gas
ODOR THRESHOLD: N/Av

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal storage conditions.

CONDITIONS TO AVOID: Storage in poorly ventilated areas. Storage near a heat source.

MATERIALS TO AVOID: Mercury oxide, water, steam, oxidizing agents, acids, alkali and alkaline earth metals, and halogenated organics.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION: Reacts with carbon monoxide, sulfur oxides, ozone, and sulfur dioxide.

11. TOXICOLOGICAL INFORMATION

LETHAL CONCENTRATION (LC50): 1350 ppm, Rat 1 hour.
LETHAL DOSE 50 (LD50): N/Ap
TERATOGENICITY: N/Ap
REPRODUCTIVE EFFECTS: N/Ap
MUTAGENICITY: N/Ap

12. ECOLOGICAL INFORMATION

No adverse ecological effects are expected.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of non-refillable cylinders in accordance with federal, state and local regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are the refillable type, return cylinders to supplier with any valve outlet plugs or caps secured and valve protection caps in place.

14. TRANSPORT INFORMATION

CONCENTRATION: 99%
DOT DESCRIPTION (US ONLY):
PROPER SHIPPING NAME: Methyl mercapta
HAZARD CLASS: 2.3 (poison), Hazard Zo C.
IDENTIFICATION NUMBER: UN1064
REPORTABLE QUANTITIES: 100 lbs.
LABELING: POISON GAS, FLAMMABLE GAS

ADR/RID (EU Only): Class 2,2TF

SPECIAL PRECAUTIONS: Cylinders should be transported in a secure upright position in a well ventilated truck.

15. REGULATORY INFORMATION

OSHA: Process Safety Management:
Material is listed in appendix A of 29 CFR 1910.119 as highly hazardous chemical.

TSCA: Material is listed in TSCA inventory.

SARA: The threshold planning quantity for this material is 100 lbs.

EU NUMBER: 200-822-1

NUMBER IN ANNEX 1 OF DIR 67/548:
Material is listed in annex 1.

EU CLASSIFICATION: N/Av

R: 13, 20

S: 16, 25

16. OTHER INFORMATION

OTHER PRECAUTIONS: Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by qualified producers of compressed gas. Shipment of a compressed gas cylinder which has not been filled by the owner or with his written consent is a violation of federal law (49 CFR).

ABBREVIATIONS:
N/Ap - Not Applicable
N/Av - Not Available
SA - Simple Asphyxiant
NE - None Established

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