

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA:

Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES:

Evacuate area downwind of fire. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT:

For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Extremely flammable. Vapor accumulation could flash and/or explode if in contact with open flame. Pressurized containers may explode if exposed to open flames or high temperatures. Flash Point C (F): < -40 (-40) (ASTM D-93). Flammable limits - LEL: 2.0%, UEL: 9.5%.

NFPA HAZARD ID:

Health: 1, Flammability: 4, Reactivity: 0

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES:

Report spills as required to appropriate authorities. U.S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED:

Stop flow of gas. Evaporate to atmosphere and use water spray to dilute vapor cloud. Evacuate area. Eliminate all ignition sources. Remove leaking containers to detached area.

ENVIRONMENTAL PRECAUTIONS:

Prevent spills from entering storm sewers or drains and contact with soil.

PERSONAL PRECAUTIONS:

See Section 8.

7. HANDLING AND STORAGE

HANDLING:

Avoid all personal contact. Can cause irritation or freeze burns if contact with liquid occurs. Ethyl mercaptan is added to gas as an odorant to aid in the detection of the gas in case of leak or accidental discharge. Since ethyl mercaptan is reactive, a reduction in its effectiveness may occur during shipping and storage of the odorized gas. Therefore, odor must not be used exclusively as a safety measure. Handle gas with strict adherence to established safety procedures. Use in well ventilated area away from all ignition sources. Avoid sparking conditions. Ground and bond all transfer equipment.

STORAGE:

Store away from all ignition sources in a cool area equipped with an automatic sprinkling system. Outside or detached storage preferred. Storage containers should be grounded and bonded.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION:

Use in well ventilated area. Ventilation required and equipment must be explosion proof. Use away from all ignition sources.

RESPIRATORY PROTECTION:

Use supplied air breathing apparatus in oxygen deficient atmospheres, or if petroleum gas concentration exceeds 2%.

EYE PROTECTION:

No special requirements under ordinary conditions of use. Chemical type goggles and face shield should be worn if contact with liquid may occur.

SKIN PROTECTION:

No special requirements under ordinary conditions of use. Thermally protective gloves must be worn when handling liquid.

Substance Name (CAS-No.)	Source	---TWA ---		-----STEL -----		NOTE
		ppm	mg/m3	ppm	mg/m3	
LIQUIFIED PETROLEUM GAS (LPG) (68476-85-7)	MOBIL	1000	1800			
	OSHA	1000	1800			
	ACGIH	1000	1800			

NOTE: Limits shown for guidance only. Follow applicable regulations.