



(MAPP GAS)
MSDS (MAPP GAS)

MAPP GAS; PROPYLENE, PROPANE AND DIMETHYL ETHER MIXTURES

DISTRIBUTOR: CLANGOR S.A.

HAZARDS IDENTIFICATION: inflammable gas I

Label



Warning: Dangerous

Instructions: extremely inflammable gas

Precautionary statements: keep far away from heat source/spark/fire/heat surface. No smoking.



Invasion way: inhalation or skin

Health hazard: Have inhibitory effect on the central nervous system, weak narcotic effect. If people get in touch with 1% of this mixture gas, it will not cause symptoms; 10% or less, only cause mild dizziness; High concentrations will cause the anesthesia or loss of consciousness; extremely high concentrations will cause suffocation. As a choker, inadequate supply of oxygen will cause some simple effects including: shortness of breath, neurasthenia, muscle contraction failure, misjudgment, reduced sensory abilities, emotional instability and fatigue. With the degree of strengthening of suffocation, it will cause nausea, vomiting, collapse and loss of consciousness, eventually convulsions, coma and death. If pregnancy women / animals inhaled the substance and lead to suffocation, it will eventually lead to fetal malformations.

Explosion Hazard: Flammable and explosive. It can be an explosive mixture with air and has combustion and explosion hazards when exposed to heat, sparks or flame oxidant. Through air or light conditions can generate potentially explosive peroxides.

Ingredient Information

Pure	Mixture	
MAPP GAS; PROPYLENE, PROPANE AND DIMETHYL ETHER MIXTURES		
Hazardous components	Concentration	CAS No.
PROPYLENE	N/A	115-07-1
PROPANE	N/A	74-98-6
DIMETHYL ETHER	N/A	115-10-6

First Aid Measures

Skin: Take off the freezing clothes on the skin after it has been thawed, and bathe with lukewarm water.

Eye: In case of frostbite or liquid instant evaporation endothermic frostbite, do not use hot water or warm water to wash eyes. Transfer the victim away from the source of pollution. Keep the eyes open to let the liquid evaporate quickly. If the pain still exists, send the victim to an ophthalmologist for further treatment.

If the victim's eyes can not stand the light, tie a bandage or handkerchief gently.

Inhalation: Immediately remove to fresh air, keeping breathing smooth. If breathing is difficult, give oxygen; If the breathing is stopped, artificial respiration and go to hospital for medical treatment.

Ingestion: It is unlikely to occur. The impact of intake is not yet clear. However, minimum health effects can be predicted. Ask physicians to seek treatment program or contact the local center of Toxic Substances Control Centre.



FIRE-FIGHTING MEASURES

Hazardous characteristics: Flammable, it can be an explosive mixture with air and has combustion and explosion hazards when exposed to heat, sparks or flame oxidant. It is heavier than air and can spread far away lower place. There is a strile-back when meet the fire. In case of high temperature, the pressure of containers increased and it suffers the risk of cracking and explosion.

Hazardous combustion product: carbon monoxide, carbon dioxide.

Fire fighting methods and extinguishing agent: Cut off the gas source as much as possible. Specially trained personnel can make use of nebulized water for cooling down the tank or the wall and its surrounding combustible materials in order to reduce the burning speed and protect plugging personnel, let the fire to burn out. The extinguishing agent can be the water spray, alcohol resistant foam, carbon

Fire Fighting precautions: If the gas source can not be cut off, keep the stable combustion, and just simply cool down the containers and surroundings. Pressure vessel in the fire or pressure vessel threatened by flame radiant heat, try to move them to the safe areas under the water gun, the others which can not be moved should deploy with enough water gun cooling protection.

ACCIDENTAL RELEASE MEASURES

Emergency Treatment: Let people evacuate from air leakage personnel to the windward safe place, do not allow non-unrelated persons enter the contaminated area. Cut off the source of fire. Recommend emergency personnel to wear self-contained breathing apparatus, wearing fire protective clothing. Cut off Elimination: Use industrial coating or adsorption / absorbent to cover leak point near the sewer, and prevent other gases accessing. Take advantage of reasonable ventilation to accelerate diffusion. Dilute by water-spraying. Build a causeway or trenching asylum to store a large amount of wastewater. Leaked containers should be properly handled and repaired before using again.

HANDLING AND STORAGE

NORMAL HANDLING: Closed operation to enhance ventilation. The operator must go through specialized training and strictly follow the operation rules. Keep far away from fire and heat source, no smoking in the workplace. Use explosion-proof ventilation system and equipment. Avoid to contact with

PROPANE 1000PPM 8 hours (Time-weighted average allowable concentration)

DIMETHYL ETHER 1000PPM 8 hours (Time-weighted average allowable concentration)

Monitoring methods: Gas Chromatography

Engineer Control: Sealed production process, full ventilation



RESPIRATORY PROTECTION: Generally do not need special protection, when the concentration in air is over the standard, it is recommended to wear self-absorption filter respirators (half-mask). When contact with high concentration, it is recommended to wear air respirators.

EYE PROTECTION: Generally do not need special protection, but it is recommended to wear safety glasses under special conditions.

BODY PROTECTION: Wear antistatic clothing

SKIN PROTECTION: Wear leather gloves and aprons when welding, cutting or brazing

OTHER PROTECTION: No smoking, eating and drinking in working area. When enter in the tank, restricted space or other high-concentration area operations should be under people's wardship.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE and PHYSICAL STATE: Colorless liquefied gas, a slight ether odor

pH: 6-7

Melting point (°C): -185

Relative density (water=1): 0.563 (20/4 °C)

Boiling Point (°C): -41.5

Vapor Density (air = 1.0): 1.58 (298.16k, 1atm)

Vapor Pressure (Kpa): 868.3 (21 °C)

Combustion Heat (kJ/mol): 1980

Stagnation Temperature (°C): 100.6

Stagnation Pressure (Mpa): 4.62

Flash point (°C): -108

Upper explosive limit (V/V): 12.0

Ignition temperature (°C): 450

Lower explosive limit (V/V): 2.1

Solubility: Slightly soluble in water

Applications: Gas source when used for welding or cutting.

Other physical and chemical properties: Non-corrosive, burning with slightly bright flame

STABILITY AND REACTIVITY

Stability: Stable

INCOMPATIBILITIES: Natural rubber, More than 65% of the copper, silver, mercury, and acidic substances, metal sulfide, potassium, potassium permanganate.

Avoid condition: Fire, high temperature

HAZARDOUS POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: Contact with carbon monoxide, carbon dioxide, silver, magnesium, halogen, and more than 65% of the copper products will produce acetylene.

Toxicological information

Acute toxicity: LC₅₀ Gas (Mice inhaled) 82000PPM, 1 hour

Sensitization: N/A

Mutagenicity:

Teratogenicity:

Carcinogenicity:



Ecological information

Ecotoxicity

Biological degradability

Non-biological degradability

Bioconcentration or bioaccumulation

Other harmful effects

Disposal considerations

Waste characteristic: hazardous waste industrial solid waste

Waste disposal: Control combustion or safety landfill method

Waste disposal attention: Do not attempt to dispose yourself, it should be handed over to the specialized agencies to deal with.

Transport Information

UN No.: 3161

Package Label: Flammable Gas

Package classification: II

Package: steel cylinder or tank

Attention: Load and unload lightly to prevent container damage. Do not strike, landslide. Do not contact with heat and fire source. Avoid sunlight, high temperature in summer season sooner or later transport.

Tanker should be equipped with fire-fighting equipment.

Management Information

Regulations: << Regulations on the Control over Safety of Dangerous Chemicals>> (3/15/2002)

regulations towards dangerous chemicals about safe production, use, storage, transport, handling and disposal.

GB13690—1992

GB12268-2005

GB6944-2005

GB16483-2000