

# MATERIAL SAFETY DATA SHEET

**NATURAL GAS: CHEMICAL FORMULA:  $C_nH_{2n+2}$ ,  $n=1,2$**

## SECTION 1. IDENTIFICATION

Product Name: Natural gas

Emergency No. – Haridwar Natural Gas Limited 9997399976

Synonyms: CNG, PNG, Dry natural gas

Name of Supplier: Haridwar natural gas

Product Use: Domestic, Industrial, Commercial, Vehicle Fuel

Date of MSDS Preparation:

## SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

NAME	CHEMICAL FORMULA	VOLUME (%)
METHANE	CH <sub>4</sub>	>85
ETHANE	C <sub>2</sub> H <sub>6</sub>	(3-8)
PROPANE	C <sub>3</sub> H <sub>8</sub>	(1-2)
BUTANE	C <sub>4</sub> H <sub>10</sub>	<1
PENTANE	C <sub>5</sub> H <sub>12</sub>	<1
CARBON DIOXIDE	CO <sub>2</sub>	<1
HYDROGEN SULPHIDE	H <sub>2</sub> S	<1
NITROGEN	N <sub>2</sub>	(1-5)
HELIUM	HE	<0.5

## SECTION 3. HAZARD IDENTIFICATION

H-280 - Contain Gas under Pressure, May explode if heated.

H-220 – Extremely flammable gas.

**DANGER**



Risk advice – In High concentrations may cause asphyxiation.

P-210- Keep away from Heat, flame.

P-381- Eliminate all ignition sources if safe to do so.

## SECTION 4. FIRST AID MEASURES

**INHALATION:** In high concentrations may cause asphyxiation. Symptoms may include Dizziness, Headache, Nausea and loss of coordination. Remove victim to uncontaminated area. Keep victim warm and rested. Call doctor if required, Apply artificial respiration.

**Eye Contact:** Rinse Eye with water for 15 minutes.

## SECTION 5. FIRE FIGHTING MEASURES

**Flash Point:** N/A

**Explosive Limits:** 5-15 %

**Extinguishing Media:** DCP, Co2 and water

**Hazardous combustion products:** Incomplete combustion may form carbon mono oxide

**Procedure:** Stop the flow of gas, cool with water, Use DCP to extinguish the fire

If in a confined space use SCBA to enter the space.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear SCBA while entering confined space, Ensure adequate ventilation, Eliminate ignition sources.

**Clean up method:** Ventilate area.

## SECTION 7. HANDLING AND STORAGE

**Handling:** Ensure equipment is adequately earthed.

Keep away from ignition sources.

Use non sparking tools.

Use with adequate ventilation available.

**Storage:** Store in a well ventilated place.

Store away from incompatible materials.

## **SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION**

Ensure adequate ventilation.

Use proper PPE'S Like- Safety goggles, Face shield, Gloves, Safety helmet, Safety shoes.

Use SCBA Set and wear non sparking clothes.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance- Colorless

Odour- Odourless

Physical State- Gas

Molecular Weight- 16 g/mol

Critical temperature- (-82 degree Celsius)

Vapour density- 0.6

Specific gravity- 0.42

Solubility mg/l water- 26 mg/mol

Auto ignition Temperature- 535 degree Celsius

Explosive limits % Vol in air- 5 to 15 %

## **SECTION 10. STABILITY AND REACTIVITY**

Possibility of hazardous reaction: Can form explosive mixture with air can burn or explode.

Chemical stability: Stable under normal conditions.

Incompatible material- Oxidizer, Halogen and Acids.

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Acute Toxicity (Oral) not classified

Acute Toxicity (Dermal) not classified

Acute Toxicity (Inhalation) not classified

## **SECTION 12. ECOLOGICAL INFORMATION**

No Ecological effect caused by this product.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal: Allow to dissipate to the atmosphere (if permitted by federal/provincial/municipal requirements). Dispose in a safe location, preferably by burning with a flare. If disposal of natural gas cannot be flared, care must be taken to ensure complete dissipation of the gas to a concentration below its flammable limits.

## **SECTION 14. TRANSPORT INFORMATION**

UN No. UN1971

Hazard class- 2.1 Class Flammable gas

## **SECTION 15. REGULATORY INFORMATION**

PNGRB- PETROLEUM AND NATURAL GAS REGULATORY BOARD

PESO- PETROLEUM AND EXPLOSIVE SAFETY ORGANISATION

## **SECTION 16. OTHER INFORMATION**

NFPA® 704 HAZARD RATING HEALTH: 1 Slight

FIRE: 4 Extreme






REACTIVITY: 0 Negligible

HMIS® HAZARD RATING HEALTH: 1 Slight

FIRE: 4 Severe

REACTIVITY: 0 Minimal

## NFPA 704

Diamond	Hazard	Value	Description
	 Health	2	Can cause temporary incapacitation or residual injury.
	 Flammability	4	Burns readily. Rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature.
	 Instability	0	Normally stable, even under fire conditions.
	 Special		

(NFPA, 2010)