Requirements	Description
1. IDENTIFICATION AND COMPANY NAME	Product identifier: PROPANE Product type : Liquefied gas Product Origin : Oman Produced by : National Gas Company Importer/Supplier: National Industrial Gas Plants Address: Salwa Industrial Area Street 45, Gate 75 - Doha Qatar P.O. Box: 1391 Telephone: : Head Office + 974 4468-9083, Sales: 4442-8844, Plant: 4450-00-08 Fax : Head Office +974 4458-3333, Sales: 4450-00-33, Plant: 4460-35-32 E-mail: nigp@qatar.net.qa , sales45@nigpqatar.com Emergency HOT LINE Tel.: + 974-7776-6277 Web Site: https://www.almanaholding.com.qa
2. HAZARD IDENTIFICATION	Hazard Pictograms  Signal word : Danger This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Liquefied gas Hazard statements: Extremely flammable gas. Contains gas under pressure; may explode if heated. May cause frostbite. May displace oxygen and cause rapid suffocation. May form explosive mixtures with air. Precautionary statements General: Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position. Approach suspected leak area with caution. Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response: Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.

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	Storage: Protect from sunlight. Store in a well-ventilated place. Disposal: Not applicable. Hazards not otherwise classified: Liquid can cause burns similar to frostbite.
3. COMPOSITION / INGREDIENT IDENTIFICATION	Chemical name : propane Other means of identification : Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; LPG; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant. CAS number : 74-98-6
4. FIRST AID MEASURES	Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs. Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Skin Contact: Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. Wash clothing before reuse. Clean shoes thoroughly before reuse. Ingestion: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. As this product rapidly becomes a gas when released, refer to the inhalation section.
5. FIRE-FIGHTING MEASURES	Suitable extinguishing media : An extinguishing agent suitable for the surrounding fire Specific hazards arising from the chemical: Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Hazardous thermal decomposition products : carbon dioxide, Carbon Monoxide Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk.

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	Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so. Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.
6. ACCIDENTAL RELEASE MEASURES	For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". For non-emergency personals: Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. Environmental Precautions: Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
7. STORAGE AND HANDLING	Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION	Propane – Exposure Limits NIOSH REL (United States, 10/2016). TWA: 1800 mg/m³ 10 hours. TWA: 1000 ppm 10 hours. OSHA PEL (United States, 5/2018). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours. ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. Individual protection measures

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	Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Eye Protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Hand Protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Respiratory Protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
9. PHYSICAL AND CHEMICAL PROPERTIES	Physical state : Gas Color: Colorless. Odor: Odorless. BUT MAY HAVE SKUNK ODOR ADDED. Melting point : -187.6°C (-305.7°F) Boiling point : -42.1°C (-43.8°F) Critical temperature : 96.55°C (205.8°F) Flash point : Closed cup: -104°C (-155.2°F), Open cup: -104°C (-155.2°F) Flammability (solid, gas): Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and oxidizing materials. Lower and upper explosive (flammable) limits: Lower: 1.8%. Upper: 8.4% Vapor pressure : 09 (psig) Vapor Density : 1.6 (Air = 1) Specific Volume (ft 3/lb) : 8.6206 Gas Density (lb/ft 3) : 0.116 (25°C / 77 to °F) Solubility in water : 0.0244 g/l Partition coefficient: n-octanol/water : 1.09 Auto-ignition temperature : 287°C (548.6°F) Molecular weight : 44.11 g/mole Heat of combustion : -46012932 J/kg
10. STABILITY AND REACTIVITY	Reactivity : No specific test data related to reactivity available for this product or its ingredients Chemical stability: The product is stable

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	Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur. Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow gas to accumulate in low or confined areas. Incompatible materials: Oxidizers Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.
11. TOXICOLOGICAL INFORMATION	Information on toxicological effects : Not Available Information on the likely routes of exposure : Not Available Delayed and immediate effects and also chronic effects from short and long term exposure : Not Available Potential chronic health effects : Not Available
12.ECOLOGICAL INFORMATION	Toxicity: Not available. Persistence and degradability : Not available Bio-accumulative potential : LogPow 1.09 Soil/water partition coefficient (KOC) : Not Available
13. DISPOSAL CONSIDERATIONS	Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty pressure vessels should be returned. Waste packaging Should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.
14. TRANSPORT INFORMATION	UN Number : UN1978 Transport hazard class(es) : 2.1  DOT Classification Limited quantity : Yes Packaging instruction Passenger aircraft Quantity limitation : Forbidden Cargo aircraft Quantity limitation: 150 kg TDG Classification Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). Explosive Limit and Limited Quantity Index 0.125 ERAP Index 3000 Passenger Carrying Vessel Index 65 Passenger Carrying Road or Rail Index Forbidden Special provisions 29, 42 IATA Quantity limitation Passenger and Cargo Aircraft: Forbidden. Cargo Aircraft Only: 150 kg.

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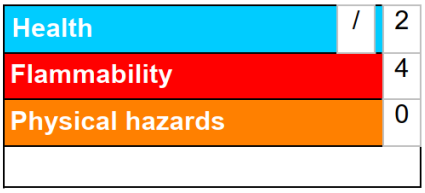
15. REGULATORY INFORMATION	U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined Clean Air Act (CAA) 112 regulated flammable substances: propane International regulations Chemical Weapon Convention List Schedules I, II & III Chemicals : Not listed Montreal Protocol: Not listed. Stockholm Convention on Persistent Organic Pollutants: Not listed. Rotterdam Convention on Prior Informed Consent (PIC): Not listed. UNECE Aarhus Protocol on POPs and Heavy Metals: Not listed. Japan : Japan inventory (ENCS): This material is listed or exempted. Japan inventory (ISHL): This material is listed or exempted.
16. OTHER INFORMATION	Hazardous Material Information System (U.S.A.)  National Fire Protection Association (U.S.A.) 

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