


SAFETY DATA SHEET


This document supersedes the MSDS revision 02 dated 17th June, 2023

Requirements	Description
1. IDENTIFICATION AND COMPANY NAME	<p>Product details: <u>LIQUID ARGON</u></p> <p>Supplier Name: 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</p>
2. HAZARD IDENTIFICATION	<p>Hazard pictograms:</p>  <p>GHS04 – gases under pressure Signal word : Warning</p> <p>Hazard statements: H281-Contains refrigerated gas; may cause cryogenic burns or injury. Hazard Class and Category Code Regulation EC 1272/2008 (CLP) Physical hazards: Gases under pressure-Refrigerated liquefied gas-Warning - (CLP: Press. Gas)-H281 Classification EC 67/548 or EC 1999/45: Not classified as dangerous substance/mixture.</p> <p>Precautionary statements - Prevention : P282-Wear cold insulating gloves, face shield, eye protection. -Response : P336+P315-Thawfrosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention. Storage : P403 - Store in a well-ventilated place.</p>
3. COMPOSITION / INGREDIENT IDENTIFICATION	<p>Substance/Preparation : Substance UN Number : 1951 EC Classification : Not classified as a dangerous substance Chemical Formula : Ar Substance Name : Argon (refrigerated) Contents : 100% CAS No. : 7440-37-1 EC No. : 231-147-0</p> <p>Does not contain other components or impurities which will influence the classification of the product.</p>
4. FIRST AID MEASURES	<p>Inhalation : In high concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.</p>



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	<p>-Eye/Skin Contact</p> <ul style="list-style-type: none"> • Immediately flush eyes thoroughly with water for at least 15 minutes. In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance. • Adverse effects not expected from this product. <p>- Ingestion: Ingestion is not considered a potential route of exposure.</p>
<p>5. FIRE-FIGHTING MEASURES</p>	<p>Suitable extinguishing media:</p> <ul style="list-style-type: none"> • All known extinguishants can be used. <p>Specific hazards:</p> <ul style="list-style-type: none"> • Exposure to fire may cause containers to rupture/explode. <p>Hazardous combustion products:</p> <ul style="list-style-type: none"> • None <p>Specific methods:</p> <ul style="list-style-type: none"> • If possible, stop flow of product • Coordinate fire measure to the surrounding fire. Cool endangered containers with water spray jet from a protected position. Do not empty contaminated fire water into drains. • Move away from the container and cool with water from a protected position. • If leaking do not spray water on to container. Water surrounding area (from protected position) to contain fire. <p>Special protective equipment for fire fighters:</p> <ul style="list-style-type: none"> • In confined space use self-contained breathing apparatus.
<p>6. ACCIDENTAL RELEASE MEASURES</p>	<p>Personal Precautions:</p> <ul style="list-style-type: none"> • Try to stop release. • Evacuate area. • Ensure adequate air ventilation. • Use protective clothing. • Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. <p>Environmental Precautions:</p> <ul style="list-style-type: none"> • Try to stop release. • Prevent from entering sewers, basements and work pits, or any place where its accumulation can be dangerous. <p>Cleanup Methods:</p> <ul style="list-style-type: none"> • Ventilate area.
<p>7. STORAGE AND HANDLING</p>	<p>Safe use of the product:</p> <ul style="list-style-type: none"> • Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. • Only experienced and properly instructed person should handle gases under pressure. The product must be handled in accordance with good industrial hygiene and safety procedures. • Do not smoke while handling product. • Ensure the complete gas system was (or is regularly) checked for leaks before use. <p>Safe Handling of the gas receptacle:</p> <ul style="list-style-type: none"> • Refer to supplier's container handling instructions. • Do not allow back feed into the container. • Protect cylinders from physical damage; do not drag, roll, slide or drop. • When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. • Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. • If user experiences any difficulty operating cylinder valve discontinue use and contact supplier.

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	<ul style="list-style-type: none"> • Never attempt to repair or modify container valves or safety relief devices. • Damaged valves should be reported immediately to the supplier. • Keep container valve outlets clean and free from contaminants particularly oil and water. • Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment. • Close container valve after each use and when empty, even if still connected to equipment. Never attempt to transfer gases from one cylinder/container to another. • Never use direct flame or electrical heating devices to raise the pressure of a container. • Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. <p>Handling:</p> <ul style="list-style-type: none"> • Suck back of water into the container must be prevented. • Do not allow back feed into the container. • Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. • Refer to supplier's container handling instructions. • Keep away from combustible materials. • Keep container below 50°C in a well ventilated place. • Observe all regulations and local requirements regarding storage of containers. • Containers should not be stored in conditions likely to encourage corrosion. • Containers should be stored in the vertical position and properly secured to prevent toppling. • Stored containers should be periodically checked for general condition and leakage. • Container valve guards or caps should be in place. • Store containers in location free from fire risk and away from sources of heat and ignition. <p>Storage:</p> <ul style="list-style-type: none"> • Keep container below 50°C in a well ventilated place.
<p>8. EXPOSURE CONTROLS / PERSONAL PROTECTION</p>	<p>Appropriate engineering Controls:</p> <ul style="list-style-type: none"> • Systems under pressure should be regularly checked for leakages. • Provide adequate general and local exhaust ventilation. • Consider work permit system e.g. for maintenance activities. <p>Personal Protection / Protective equipment:</p> <ul style="list-style-type: none"> • Ensure adequate ventilation. • A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk. • The following recommendations should be considered. • Wear safety glasses with side shields. • Wear leather safety gloves and safety shoes when handling cylinders. • Ensure adequate ventilation. • Protect eyes, face and skin from liquid splashes. <p>Other Environmental exposure controls:</p> <ul style="list-style-type: none"> • Refer to local regulations for restriction of emissions to the atmosphere. See section13 for specific methods for waste gas treatment.
<p>9. PHYSICAL AND CHEMICAL PROPERTIES</p>	<p>Information on basic physical and chemical properties</p> <p>Appearance</p> <p>Physical state at 20°C /101.3kPa : Liquefied gas.</p> <p>Colour : Colourless liquid.</p> <p>Odour : No odour warning properties.</p> <p>Odour threshold : Odour threshold is subjective and in adequate to warn for over exposure.</p> <p>pH : Not applicable for gas-mixtures.</p> <p>Molar mass [g/mol] : Not applicable for gas-mixtures.</p>

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	<p>Melting point [°C] : -189 Boiling point [°C] : -186 Critical Temperature [°C] : -122 Flash point [°C] : Not applicable for gas-mixtures. Evaporation rate (ether=1) : Not applicable for gas-mixtures. Flammability rang [2vol% / in air] : Not flammable Vapour pressure [20°C] : Not applicable Relative density, liquid (water=1) : 1.4 Relative density, gas (air=1) : 1.38 Solubility in water [mg/l] : 67 Partition coefficient n-octanol/water : Not applicable for gas-mixtures. Viscosity at 20°C [mPa.s] : Not applicable Explosive Properties : Not applicable Molecular Weight : 40 Dew Point °F : - 90</p> <p><u>Other information</u> Other data : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.</p>
10. STABILITY AND REACTIVITY	<p>Stability and Reactivity :</p> <ul style="list-style-type: none"> No reactivity hazard other than the effects described in sub-sections below. Stable under normal conditions. Liquid spillages can cause embrittlement of structural materials. <p>Chemical stability:</p> <ul style="list-style-type: none"> Stable under normal conditions. <p>Hazardous decomposition products :</p> <ul style="list-style-type: none"> Under normal conditions of storage and use, hazardous decomposition products should not be produced.
11. TOXICOLOGICAL INFORMATION	Toxicology Information: No known toxicological effects from this product.
12. ECOLOGICAL INFORMATION	Ecological Effects Information: Can cause frost damage to vegetation
13. DISPOSAL CONSIDERATIONS	<p>Waste treatment methods</p> <ul style="list-style-type: none"> May be vented to atmosphere in a well ventilated place. Do not discharge into any place where its accumulation could be dangerous. Refer to the code of practice of EIGA (Doc.30/10 "Disposal of Gases, down loadable at http://www.eiga.org) for more guidance on suitable disposal methods. Contact supplier if guidance is required. <p>General</p> <ul style="list-style-type: none"> Do not discharge in to any place where its accumulation could be dangerous. Contact supplier if guidance is required.
14. TRANSPORT INFORMATION	<p>UN number : UN 1951 HS Code : 84314990</p> <p>Labeling</p>  <p>: 2.2 : Non Flammable, non toxic gas.</p> <p><u>Land transport</u> UN proper shipping name : ARGON, REFRIGERATION LIQUID</p>

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	<p>Transportation hazard class(es) : 2 Classification code : 3 A Packing group : 0 Packing Instruction(s) : P203 Tunnel Restriction : C/E Tank carriage: Passage forbidden through tunnels of category C, D and E: Other carriage: Passage forbidden through tunnels category E. HAZCHEM – Emergency Action Code: 2T 2 = Fine water spray. T=Recommended personal protective equipment: Full fire kit and breathing apparatus. Appropriate measures: dilute</p> <p><u>Sea transport</u> Proper shipping name : ARGON, REFRIGERATION LIQUID Hazard class(es) : 2.2 Emergency Schedule (EmS) - Fire : F-C Emergency Schedule (EmS) - Spillage : S-V Packing Instruction(s) : P203</p> <p><u>Air transport</u> Proper shipping name : ARGON, REFRIGERATION LIQUID Hazard class(es) : 2.2 Passenger and Cargo Aircraft : Allowed Packing instruction – Passenger and Cargo Aircraft : 202</p> <p><u>Special precautions for user</u></p> <ul style="list-style-type: none"> • Avoid transport on vehicles where the load space is not separated from the driver's compartment. • Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. • Before transporting product containers. • Ensure there is adequate ventilation. • Ensure that containers are firmly secured. • Ensure cylinder valve is closed and not leaking. • Ensure valve outlet cap nut or plug (where provided) is correctly fitted. • Ensure valve protection device (where provided) is correctly fitted. <p><u>Other transport information</u></p> <ul style="list-style-type: none"> • Compliance with applicable regulations.
<p>15. REGULATORY INFORMATION</p>	<p><u>Safety, health and environmental regulations/legislation specific for the substance or mixture</u></p> <ul style="list-style-type: none"> • EU Legislation / Seveso directive 96/82/EC : Not covered • National legislation: Ensure all national/local regulations are observed. • Chemical safety Assessment: A CSA does not need to be carried out for this product. <p>Risk Phrases : May cause frostbite. : Asphyxiant in high concentrations.</p> <p>Safety Phrases: Keep container in well-ventilated place. : Use suitable protective equipment.</p>
<p>16. OTHER INFORMATION</p>	<p>Indication of changes / Training Advice</p> <ul style="list-style-type: none"> • Revised safety data sheet in accordance with commission regulation (EU) No.453/2010. • Asphyxiant in high concentrations. • Keep container in a well-ventilated place. • Do not breathe the gas. • May cause frostbite. • Wear suitable protective clothing. • The hazard of asphyxiation is often overlooked and must be stressed during operator training.

Requirements	Description
	<ul style="list-style-type: none"> • Ensure all national/local regulations are observed. • Receptacle under pressure. <p>Further information</p> <ul style="list-style-type: none"> • Classification in accordance with calculation methods of regulation (EC) 1272/2008CLP / (EC) 1999/45DPD. <p>This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.</p>

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