

# GAS IN ITS BEST ELEMENTS



شركة أوكسجين الشارقة  
**SHARJAH OXYGEN COMPANY**  
YOUR RELIABLE GAS PARTNER **SINCE 1970**

**LIQUID AND GAS SUPPLY SOLUTIONS  
PROJECT ENGINEERING & EXECUTION**



[www.sharjahoxygen.com](http://www.sharjahoxygen.com)

# COMPANY PROFILE

**Sharjah Oxygen Company**, established by the Late Mr. Anwar Asadi in 1970, presently owned by Ms. Sara Anwar Asadi and Ms. Maryam Anwar Asadi and professionally managed by Ms. Nada Awadha - Managing Director.

## SOC Primary activities are:

- Production, marketing and supply of industrial, medical, mixtures and specialty gases.
- Manufacture and installation of liquid and gas related equipments.
- Refilling of liquid and gases.
- Trading of gas related accessories, liquid storage tanks and cylinders.
- Providing gas related services and consultancy.



*Sharjah Oxygen Company - 25,000 m<sup>2</sup> plot in Hamriyah Free Zone Area*

Under the dynamic leadership of the Top Management, Sharjah Oxygen Company has become a Milestone as Middle East's leading Gas producer and supplier.

SOC corporate responsibility strategy is based on the vision of leading and contributing towards the industrial developments and expansion projects in The United Arab Emirates and Gulf Countries.

The company has achieved phenomenal progress and expansion in terms of Sales, Net Profit and Net Assets worth without obtaining any capital loans or facilities from any bank or financial institution.

SOC achievements are the direct results of top management and employees' professionalism, dedication and commitment, to continuously provide quality products and services, build long-term relationships with customers and suppliers and to contribute to the welfare of society.

With the above company principles, philosophy, culture and standards, surely SOC will continue to increase the return on investment, expand its business and earnings growth.

Our strict but streamlined procedures, risk calculated strategies and weighted decisions provide us the solid platform to withstand any stormy time.



SALE  
&  
RENT



PROJECT  
DESIGN



BULK  
SUPPLY



## BUSINESS SCOPE

- ✓ **Supply of Gases** – Industrial, Medical, Specialty Gases and Gas Mixtures
- ✓ **Liquid Bulk Supply** – Ammonia, Propane, LPG, Carbon Dioxide, Argon, Nitrous Oxide, Oxygen and Nitrogen
- ✓ **Installation and Commissioning** – Liquid and Gas Plants, Gas Filling Stations with Storage Tanks Facilities
- ✓ **Fabrication and Supply** – Cylinder Quads / Racks / Carry Racks / Regulating Manifolds - Specialized in Oil & Gas Industry
- ✓ **Sale and Rent** – Cylinders, Vaporizer, ISO and Storage Tanks
- ✓ **Trading** – All Types of Gas Accessories and Gas Related Equipments



# PRODUCTS PURITIES & APPLICATIONS

## DISSOLVED ACETYLENE ( $C_2H_2$ )

### GRADE:

- Industrial  $\geq 98.0\%$
- Atomic Absorption (AA)  $\geq 99.6\%$

### APPLICATIONS:

- Oxy-Acetylene Welding
- Glass bottle production moldings
- Atomic absorption flame spectroscopy
- Soldering / Brazing



## NITROGEN ( $N_2$ )

### GRADE:

- Industrial  $\geq 99.95\%$
- Technical  $\geq 99.998\%$
- High Purity  $\geq 99.999\%$
- Ultra High Purity  $\geq 99.9995\%$  &  $\geq 99.9999\%$

### APPLICATIONS:

- Heat treatment of various metals.
- Food preservations.
- Refrigeration and freezing of food.
- Purging and testing of pipelines.



## ARGON (Ar)

### GRADE:

- Industrial  $\geq 99.997\%$
- High Purity  $\geq 99.999\%$
- Ultra High Purity  $\geq 99.9995\%$  &  $\geq 99.9999\%$

### APPLICATIONS:

- Used in electric bulbs, welding and cutting.
- Inert gas shield for welding.
- In laboratory - G. C. carrier gas.



## MEDICAL AIR

### GRADE:

- Medical Air ( $O_2$  range 19.5% to 23.5%)
- Breathing Air ( $O_2$  range 20.0% to 22.5%)
- Zero Air ( $O_2$  range 19.5% to 23.5%)

### APPLICATIONS:

- Carrier gas for anaesthetic agents in inhalational anaesthesia.
- Driving incubators, ventilators and surgical tools in the operating theater.
- Life Support.



## ETHYLENE OXIDE ( $C_2H_4O$ )

### GRADE:

- Purity  $\geq 99.9\%$

### APPLICATIONS:

- Health care sterilant
- Use for sterilization in chemical industry.
- In the manufacture of ethylene glycol and higher alcohol.
- In the synthesis of chlorine, thiamine and procaine.



## OXYGEN ( $O_2$ )

### GRADE:

- Industrial  $\geq 99.5\%$
- High Purity  $\geq 99.999\%$
- Technical  $\geq 99.7\%$
- Medical / Aviation Breathing Oxygen  $\geq 99.5\%$

### APPLICATIONS:

- Treating hypoxia and hypoxaemia
- Life support
- Mainly used for the glass melting and generally for all oxy-combustion process.



## CARBON DIOXIDE ( $CO_2$ )

### GRADE:

- Food / Beverages  $\geq 99.9\%$
- Technical  $\geq 99.99\%$

### APPLICATIONS:

- Used in the food business in carbonation of fizzing beverages such as soft drinks, mineral water or beer and packaging of foodstuffs.
- Freezing, chilling, refrigeration of food for transport.



## AMMONIA ( $NH_3$ )

### GRADE:

- Commercial  $\geq 99.5\%$

### APPLICATIONS:

- Used in semiconductor manufacturing and advanced materials for the deposition of silicon nitride ( $Si_3N_4$ ) by Chemical Vapor Deposition (CVD).
- Refrigerating fluid used instead chlorofluorocarbons (freons) in some refrigerators.



## NITROUS OXIDE ( $N_2O$ )

### GRADE:

- Medical  $\geq 99.0\%$
- High Purity  $\geq 99.7\%$

### APPLICATIONS:

- Used as an anaesthetic and analgesic agent. It acts synergistically when combined with other inhaled or intravenous anaesthetic agents. It has little effect on respiration and circulation during anaesthesia.
- In laboratory "Atomic absorption spectrophotometer".



## CHLORINE ( $Cl_2$ )

### GRADE:

- Purity  $\geq 99.9\%$

### APPLICATIONS:

- For sewage treatment.
- For the manufacture of polyvinylchloride (PVC) and other various organic products (such as solvents, pesticides, herbicides, refrigerants).



# PRODUCTS PURITIES & APPLICATIONS

## ENTONOX

### GRADE:

- Medical Mixture:  
50% Nitrous Oxide + 50% Oxygen

### APPLICATIONS:

- ENTONOX gives fast pain relieving properties of nitrous oxide with the added benefit of oxygen to reduce the threat of unconsciousness. It is a potent analgesic widely used for acute, short-term pain relief in various range of clinical conditions, from painful procedures to childbirth.



## HELIUM (He)

### GRADE:

- High Purity  $\geq 99.999\%$
- Diving  $\geq 99.997\%$
- Balloon  $\geq 97.5\%$
- Ultra High Purity  $\geq 99.9995\%$  &  $\geq 99.9999\%$

### APPLICATIONS:

- Balloon inflation, leak detection because the boiling point of helium is close ( $-269^{\circ}\text{C}$  or  $-452^{\circ}\text{C}$ ) to the absolute zero ( $-273^{\circ}\text{C}$ ).
- Used in MRI & NMR Machine in hospital, radiologist and laboratory.



## HYDROGEN ( $\text{H}_2$ )

### GRADE:

- High Purity  $\geq 99.999\%$
- Ultra High Purity  $\geq 99.9995\%$  &  $\geq 99.9999\%$

### APPLICATIONS:

- In refineries, glass manufactures, for metal production, chemical production.
- Pure hydrogen is used for the production of plastics, polyester and nylon.  $\text{H}_2$  gas is also used in the hydrogenation of amines and fatty acids (food oils).
- Hydrogen is a carbon-free energy source used in the fuel cells.



## METHANE ( $\text{CH}_4$ )

### GRADE:

- Pure  $\geq 99.5\%$
- High Purity  $\geq 99.95\%$
- Ultra High Purity  $\geq 99.999\%$

### APPLICATIONS:

- Used in calibration gas mixtures for petrochemical industry, environmental emission monitoring, industrial hygiene monitors and trace impurity analyzers.
- Utilized as fuel and in chemical reactions to commercial chemical production.



## SULFUR HEXAFLUORIDE ( $\text{SF}_6$ )

### GRADE:

- Purity  $\geq 99.995\%$

### APPLICATIONS:

- In semiconductor manufacturing, sulfur hexafluoride is a fluorine source for high-density plasma etching without generating carbon by-products. It can be used for etching metal silicides (specially tungsten etchback), nitrides and oxides versus their metal substrates. Dielectric medium, Medical use, Tracer compound.



## ETHYLENE ( $\text{C}_2\text{H}_4$ )

### GRADE:

- Purity  $\geq 99.5\%$

### APPLICATIONS:

- In terms of quantity produced, ethylene is the most important organic chemical. It is the feedstock in the manufacture of the most important polymer (polyethylene).
- For accelerating the ripening of bananas and maturing the color of citrus fruits.
- As a fuel for cutting and welding of metal.



## PROPANE ( $\text{C}_3\text{H}_8$ )

### GRADE:

- Propane R290  $\geq 98\%$
- Commercial Propane  $\geq 95\%$
- Aerosol Propellant (Propane Egap 110)  $\geq 98\%$

### APPLICATIONS:

- Used in deodorant manufacturing as well as for refrigeration.
- Used to calibrate environmental emission monitoring, industrial hygiene monitors and trace impurity analyzers, particularly for total hydrocarbons measurements (THC).
- Domestic and industrial fuel.



## CARBON MONOXIDE ( $\text{CO}$ )

### GRADE:

- High Purity  $\geq 99.5\%$

### APPLICATIONS:

- Carbon monoxide and synthesis gas are the raw materials in the polycarbonate, polyurethane and oxy-alcohol manufacture based on SMR and ATR processes or on partial oxidation.
- Used in the manufacture of metal carbonyls and in calibration of gas mixtures for petrochemical industry, environmental emission monitoring, industrial hygiene monitors and trace impurity analyzers.



# PRODUCTS CATEGORIES

Sharjah Oxygen Company employs variety of options in handling, delivery and filling of the gas products to minimize the customer's cost.

## INDUSTRIAL GASES

- Dissolved Acetylene
- Oxygen
- Nitrogen
- Carbon Dioxide
- Argon
- Ammonia
- Propane

## SPECIALTY GASES

- Methane
- Ethylene
- Sulfur Hexafluoride
- Chlorine
- Ethylene Oxide
- Carbon Monoxide

## GAS MIXTURES

SOC offers calibration gas mixtures custom-made to specific requirements. We provide any composition of gas mixtures with concentration that ranges from 1 ppm to 50% vol., by employing sophisticated blending techniques.

## MEDICAL GASES

- Medical Air
- Medical Oxygen
- Medical Nitrous Oxide
- Entonox
- Liquid Helium

## HIGH PURITY GASES

- Oxygen
- Nitrogen
- Hydrogen
- Helium

## FOOD GRADE GASES

- Carbon Dioxide
- Nitrogen



# GAS RELATED ACCESSORIES



CYLINDER VALVES



GAS REGULATORS



CYLINDER CAP



BREATHING SET



CYLINDER GUARD



WELDING / CUTTING SET

CRYOGENIC PUMPS, SPECIALTY REGULATORS, SPINDLES, CONNECTORS, AND MORE...





***“Our commitment is to provide the HIGHEST standards of quality products and services to all our customers”***

## OUR SERVICES

With our experience in the gas industry, we provide the highest quality, efficiency and approved international standards to all the large and small companies in the various types of industries.

**Our support and services include, but not limited to:**



### CYLINDER PAINTING

Painting of cylinders as per customers specifications and international standard.



### GRITBLASTING OF CYLINDERS

Cylinder surface are gritblasted prior to painting to achieve the high quality paint results.



### REPAIR OF HIGH PRESSURE CYLINDER VALVES

Maintenance and replacement of defective cylinder valves.



### NITROGEN PURGING

Supply of storage tanks and ISO tanks for nitrogen and carbon dioxide purging services.



### HYDROSTATIC TESTING

Re-qualification of all sizes of cylinders, jumbo tubes and jumbo skids utilizing hydrostatic testing techniques.



### CRYOGENIC TANKS REFURBISHMENT

- Gritblasting
- Painting
- Replacement of defective parts
- Instruments calibration
- Vacuuming
- BV, third party certification

## INTERNATIONAL STANDARD CERTIFICATIONS



SHARJAH OXYGEN COMPANY has been granted the ISO 9001:2000 Certificate in July 2004 on account of its commitment to achieve and perfect the product quality and services through the implementation and adherence to the laid down Quality System, Procedures and Organization Objectives and was upgraded to ISO 9001:2008 on 28 May 2014.

On 16 FEBRUARY 2017, new Certificates were granted to SOC for ENVIRONMENTAL MANAGEMENT SYSTEM ISO 14001:2015 and OCCUPATIONAL HEALTH AND SAFETY OHSAS 18001:2007 after complying with the mandatory standards. QMS upgraded to 9001:2015.

These Certifications are evidences of SOC's commitment to adhere and keep abreast with the changes in international standards and the global business environment.



SHARJAH OXYGEN COMPANY



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SHARJAH OXYGEN COMPANY

COMMITMENT

QHSE CERTIFIED

QUALITY

RELIABILITY

ADEQUACY



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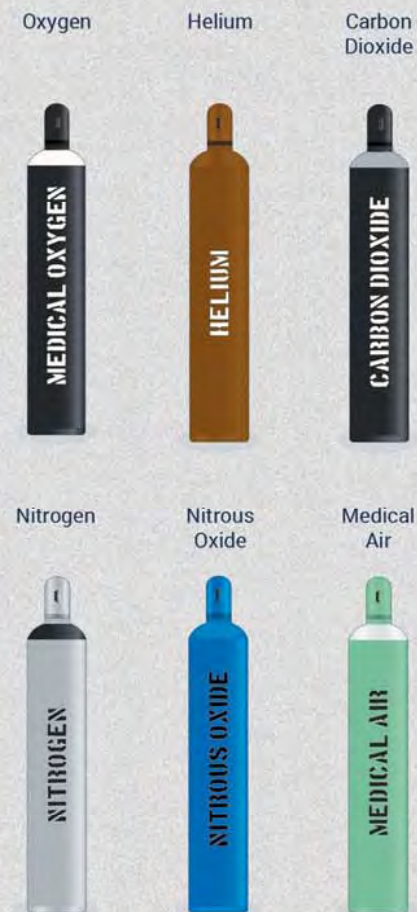


# GAS CYLINDER IDENTIFICATION CHART

## Industrial Gases



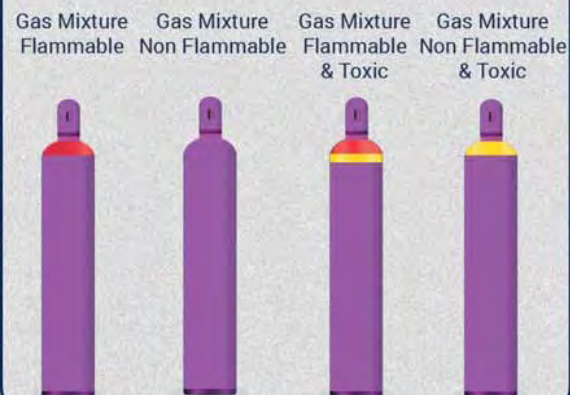
## Medical Gases



## Specialty Gases



## Gas Mixtures





## SALE AND RENT OF VAPORIZER, ISO AND STORAGE TANKS

Sharjah Oxygen Company offers sale and rent of 20 feet super insulated ISO Tanks - IMO 5 (T50) & IMO 7 (T75) Type - with capacities ranging from 19,000 liters to 24,000 liters - Working pressure ranging from 8 to 24 barg. The tanks are certified by Third Party Classification Society (Lloyd's Register/Bureau Veritas). These ISO tanks are designed and approved to be transported by rail, truck, ship or barge for local, national or worldwide transportation. The liquid products transported in these containers vary from non-hazardous and hazardous as Oxygen, Nitrogen, Argon, Nitrous Oxide, Carbon Dioxide, Propane, Butane, Liquefied Petroleum Gas, Aerosol Propellant, Ammonia and Refrigerants.

SOC also offers sale and rent of cryogenic storage tanks that are double wall vacuum, powder insulated. These are mainly used for cryogenic liquid storage such as Oxygen, Nitrogen, Argon, Nitrous Oxide and Carbon Dioxide - their capacities ranging from 2,000 liters to 150,000 liters. These tanks are widely used for hospitals and metal smelting which require large gas supply. These are the best mode of supply for a central gas supply system.

SOC also offers a wide range of ambient aluminum cryogenic vaporizers to meet multiple customers requirement.



# GAS RELATED PROJECTS

We specialize in the design, engineering and fabrication of gas equipments skids to meet customer process demand adhering to strict quality standards.

Sharjah Oxygen Company provides complete solutions to customer requirement for their gas and liquid applications and processes, as well as offering all types of equipments for gas and liquid applications.

We undertake turnkey projects that is tailored to suit the customer applications. Our project specialty ranges from a simple gas pipeline installation up to gas plants installation.

## INSTALLATION, TESTING & COMMISSIONING

- Air Separation Plant
- Carbon Dioxide Plant
- Acetylene Plant
- Argon / CO2 Storage Gas Facility
- Cryogenic Storage Tank & Filling Facility



## DESIGN & PROJECT EXECUTION - TAILORED FOR OIL & GAS INDUSTRIES

- Gas Distribution Pipeline Systems with Storage Capability
- Cylinder Racks and Gas Supply Manifolds
- Gas and Liquid Handling Facility





## SHARJAH OXYGEN COMPANY

With our specialized knowledge and experience in the industrial, medical and specialty gases process applications, we provide the ultimate design and the engineering consultancy that best serve our clients' needs.



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