



MATERIAL SAFETY DATA SHEET OXYGEN

PRODUCT AND COMPANY IDENTIFICATION

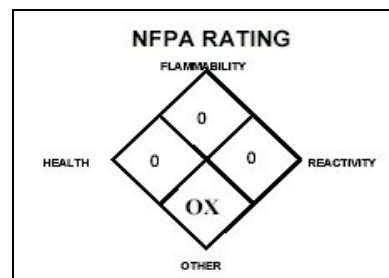
Product name: Oxygen

Supplier/ Manufacturer: Multan Chemicals Ltd.,

4 C – II Industrial Estate, Multan Pakistan

Tel +92-61-6538206 Fax +92-61-6539041

Cell #: +92 333 6103336, +92 333 6066008



COMPOSITION/ INGREDIENT INFORMATION

C.A.S.	CONCENTRATION %	Ingredient Name
7782-44-7	Typically > 99 (MSDS also applies to 90 - 99%)	OXYGEN

HAZARD IDENTIFICATION

Emergency Overview:

Oxygen gas is colorless, odorless, non-toxic cryogenic liquid or colorless, odorless, oxidizing gas. Liquid releases will quickly vaporize to gas. The chief physical hazard associated with releases of the gas is its oxidizing power which can greatly accelerate the burning rate for both common and exotic combustible materials. Emergency personnel must practice extreme caution when approaching oxygen releases because of the potential for intense fire. The primary health hazard at atmospheric pressure is respiratory system irritation after exposure to high oxygen concentrations. Maintain oxygen levels in air above 19.5% and below 23.5%. While up to 50% oxygen can be breathed for more than 24 hours without adverse effects, high concentrations in open air accelerate combustion and increase the risk of fire and explosion of combustible or flammable materials.

Route of entry: Inhalation, skin and eye contact.

Effects of acute exposure

Eye contact: No adverse effects expected.

Skin contact: No adverse effects expected.

Inhalation: May cause breathing difficulty. Prolonged exposure to high oxygen levels (>75%) can cause central nervous system depression: signs/symptoms can include headache, dizziness, drowsiness, poor coordination, slowed reaction time, slurred speech, giddiness and unconsciousness. May cause coughing and chest pain. May cause lung damage. May cause soreness of the throat.

Ingestion: Not a likely route of exposure.

Effects of chronic exposure: None known.

Reproductive effects: Oxygen deficiency during pregnancy has produced developmental abnormalities in humans and experimental animals.

FIRST AID MEASURES

Skin contact: None required.

Eye contact: None required.

Inhalation: **RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO THIS PRODUCT WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus should be worn.** Remove victim(s) to fresh air, as quickly as possible. If not breathing qualified personnel should administer artificial respiration. Get medical attention. | Keep person warm and at rest.

Ingestion: No first aid should be needed. Not considered a potential route of exposures

FIRE FIGHTING MEASURES

Flammability: Oxidizer.

Conditions of flammability: Contact with flammable materials. Vigorously accelerates combustion.

Extinguishing media: Use appropriate extinguishing media for surrounding fire.

Special procedures: Self-contained breathing apparatus required. Firefighters should wear the usual protective gear. Cool fire exposed containers with water spray. Personnel should be evacuated, if necessary, to upwind area. Remove containers from fire area if without risk.

Auto-ignition temperature: Not applicable.

Explosion Data

Sensitivity to mechanical impact: Avoid impact against container.

Explosive power: Closed containers may rupture or explode due to pressure build-up when exposed to extreme heat. Cylinders are equipped with temperature and pressure relief devices but may still rupture under fire conditions.

ACCIDENTAL RELEASE MEASURES

Leak/Spill: Evacuate all non-essential personnel. Stop leak without risk. Wear gloves and goggles Use a self-contained breathing apparatus. Ventilate area. Monitor the surrounding area for Oxygen level.

HANDLING AND STORAGE

Handling procedures and equipment: Protect system components against physical damage. Use adequate ventilation. Avoid inhalation. Never work on a pressurized system. If there is a leak, close the upstream valve, blow down the system by venting to a safe place, then repair the leak.

Storage requirements: Use storage containers, piping, valves and fittings designed for storage and distribution of Gaseous Oxygen. Protect cylinders against physical damage. Store in cool, dry, well-ventilated, fireproof area, away from flammable materials and corrosive atmospheres. Store away from heat and ignition sources and out of direct sunlight. Do not store near elevators, corridors or loading docks. Do not allow area where cylinders are stored to exceed 52°C (125°F). (See cylinder: safe storage, handling & use).

Move cylinders with a suitable hand-truck. Do not drag, slide or roll cylinders. Do not drop cylinders or permit them to strike each other. Secure cylinders firmly. Leave the valve protection cap in-place (where provided) until cylinder is placed into service and after it is taken out of service.

Use designated CGA fittings and other support equipment. Do not use adapters. Do not heat cylinder by any means to increase the discharge rate of the product from the cylinder. Use check valve or trap in discharge line to prevent hazardous backflow into the cylinder. Do not use oils or grease on gas-handling fittings or equipment.

After use, close main cylinder valve. Replace valve protection cap (where provided). Mark empty cylinders "EMPTY".

TRANSPORT INFORMATION



DOT/ TDG classification: For cylinder shipments: Oxygen, compressed UN1072 Class 2.2 (Non-Flammable Gas) with subsidiary risk 5.1 (Oxidizer)

REGULATORY INFORMATION



WHMIS classification:

DSL status: Appears on DSL.