



# Material Safety Data Sheet

FM.PRO-35

## 1. Chemical Product and Company Identification

PRODUCT NAME : **OXYGEN, COMPRESSED**

TRADE NAME/SYNONYMS : None

CHEMICAL FAMILY : inorganic, gas

COMPANY IDENTIFICATION :

**PT. BSG GASES**

**Jl. Cempaka, Desa Jatimulya**

**Tambun, Bekasi - Indonesia**

EMERGENCY PHONE : **+62 21 8812507 – 08**

## 2. Composition, Information on Ingredients

COMPONENT : OXYGEN

FORMULA : O<sub>2</sub>

PERCENTAGE : 99+%

## 3. Hazards Identification

EMERGENCY OVERVIEW : High pressure oxidizing gas. Vigorously accelerates combustion.

POTENTIAL HEALTH EFFECTS:

ROUTES OF ENTRY: Inhalation

ACUTE EFFECTS: Extended exposures to oxygen at higher pressures may be hazardous. A variety of central nervous system effects may result from breathing oxygen greater than 2 atm. Symptoms include dizziness, impaired coordination, visual and hearing disturbances and seizures.

CHRONIC EFFECTS: None known

## 4. First Aid Measures

INHALATION: Immediately remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.

EYE CONTACT: Remove victim from source of contact. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

SKIN CONTACT: Do not apply direct heat. Do not rub frozen area. Flush affected area with tepid water.

INGESTION: None

IN EVENT OF EXPOSURE, CONSULT A PHYSICIAN

## 5. Fire Fighting Measures

FLASH POINT: Nonflammable

AUTOIGNITION TEMPERATURE: N/A

FLAMMABLE LIMITS: Nonflammable

EXTINGUISHING MEDIA: Use extinguish media appropriate for surrounding fire.

SPECIAL FIRE FIGHTING INSTRUCTION AND EQUIPMENT: Wear self-contained breathing apparatus and full protective clothing. Keep fire exposed cylinders cool with water spray. If possible, stop the product flow. Move container from fire area if possible.

HAZARDOUS COMBUSTION PRODUCTS: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: Cylinder rupture may occur under fire conditions. High oxidizing atmosphere increases the likelihood of fires. Oxygen vigorously supports combustion.

## 6. Accidental Release Measures

CLEAN UP PROCEDURES: Evacuate and ventilate area. Shut off source if possible and remove source of heat.

SPECIALIZED EQUIPMENT: None

## 7. Handling And Storage

PRECAUTIONS TO BE TAKEN IN HANDLING: Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders. Use only oxygen cleaned equipment. Avoid oils and greases. Oxygen reacts violently with hydrocarbons particularly at high pressure.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in well ventilated areas away from combustibles. Keep valve protection cap on cylinders when not in use.

## 8. Exposure Controls, Personal Protection

ENGINEERING CONTROLS: Provide adequate general and local exhaust ventilation.

EYE / FACE PROTECTION: Safety glasses

SKIN PROTECTION: None

RESPIRATORY PROTECTION: In case of leakage, use self-contained breathing apparatus.

OTHER PROTECTIVE EQUIPMENT: Safety shoes when handling cylinders.

## 9. Physical And Chemical Properties

APPEARANCE: Colorless

ODOR: Odorless

PHYSICAL PRESSURE: Gas

VAPOR PRESSURE: N/A

VAPOR DENSITY (AIR=1): @25 deg.C: 1.105

BOILING POINT (C): -183

SOLUBILITY IN WATER: 4.89 cm<sup>3</sup>/100 cm<sup>3</sup>

SPECIFIC GRAVITY (H<sub>2</sub>O=1): Gas

EVAPORATION RATE: Gas

ODOR THRESHOLD: None

## 10. Stability and Reactivity

STABILITY: Stable under normal storage conditions.

CONDITIONS TO AVOID: Storage in poorly ventilated areas. Storage near a heat source.

MATERIALS TO AVOID: Reacts violently with phosphine, hydrazine, ethers, alcohols, hydrogen sulfide, and hydrocarbons.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION: None

## 11. Toxicological Information

Not available

## 12. Ecological Information

Not available

## 13. Disposal Considerations

WASTE DISPOSAL METHOD: Non-returnable cylinders must not be refilled. Dispose of non-refillable cylinders in accordance with federal, state, and local regulations. Allow gas to discharge at a moderate rate. Return cylinders to supplier with any valve outlet plugs or caps secured and valve protection cap in place.

## 14. Transport Information

PROPER SHIPPING NAME: **Oxygen**, compressed

HAZARD CLASS: 2.2 (nonflammable)

IDENTIFICATION NUMBER: UN1072

LABELING: NONFLAMMABLE, OXIDIZING GAS



SPECIAL PRECAUTIONS: Cylinders should be transported in a secure upright position in a well ventilated truck.

## 15. Other Information

OTHER PRECAUTIONS: Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by PT. BSG GASES qualified producers of compressed gas.