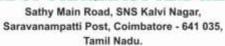
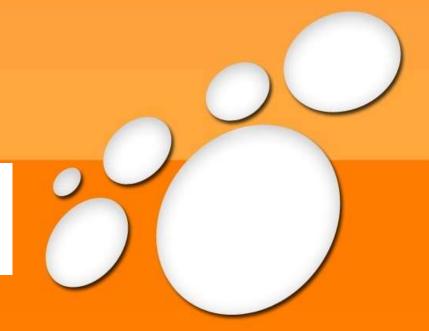


SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES





INHALANTS



Oxygen

 O_2

MOP:

by heating Potassium chlorate

2KCIO₃ Potassium chlorate

Physical Properties:

- Colorless gas
- Odourless
- Tasteless
- Soluble in water
- Soluble in alcohol
- Freely soluble in silver solution
- Slightly heavier than air

Chemical Properties:

It react with carbon form carbon dioxide

$$C + O_2 \longrightarrow CO_2$$

It react with sulpher form sulpher dioxide

$$S + O_2 \longrightarrow SO_2$$

Uses:

- 1. Prevention & Treatment of hypoxia.
- 2. Dilatants for anesthetic gases.
- 3. Treatment of carbon monoxide poisoning.
- 4. Treatment of severe pulmonary damage.
- 5. Liquid oxygen used as fuel in rocket technology.



Storage

"Oxygen is stored and supplied in metal cylinders. The shoulder of cylinder are painted with white color & remaining with black color."

Oxygen cylinder



Carbon Dioxide

CO₂

MOP:

By burning coal with oxygen (in air)

$$C + O_2 CO_2$$

Physical Properties:

- 1. Colorless gas
- 2. Odourless
- 3. Acidic taste
- 4. Soluble in water
- 5. Slightly heavier than air.
- 6. Aqueous solution is acidic in nature.

Chemical Properties:

1. When react with water it gives carbonic acid.

$$CO_2 + H_2O \longrightarrow H_2CO_3$$

2. When react with magnesium it gives magnesium oxide.

$$2Mg + CO_2 \rightarrow 2MgO + C$$



Uses:

- 1. Respiratory stimulants
- 2. Treatment of carbon monoxide poisoning.
- 3. Manufacturing of soft drinks
- 4. Preparation of dry ice
- 5. Rarely used in acid base balance.



Storage

"Carbon dioxide is stored and supplied in metal cylinders. The shoulder of cylinder are painted with Grey color."

Nitrous oxide

N₂O

MOP:

By heating ammonium nitrate.

$$NH_4NO_3 \xrightarrow{\bullet} N_2O + 2H_2O$$

Physical Properties:

- 1. Colorless, Odourless, Tasteless gas.
- 2. Soluble in water.
- 3. Soluble in ether.
- 4. Soluble in oils.
 - 5. Soluble in alcohol.
 - 6. Slightly heavier than air.
 - 7. Aqueous solution is neutral in nature.

Chemical Properties:

1. On heating at high temp. it decomposed and form oxygen.

$$N_2O \longrightarrow 2N_2 + O_2$$

2. When react with copper it form copper oxide.

$$N_2O + Cu \longrightarrow CuO + N_2$$

Uses:

1. General anesthetics

2.Muscle relaxant

3.In dental surgery

4. To calm mental patients.



Storage

"Nitrous oxide is stored and supplied in metal cylinders. The shoulder of cylinder are painted with Blue color."