OXYjery Emergency Oxygen generator Manual V1.2

Description:

OXYjery is a lightweight chemical pure oxygen generation device, no pressure vessels and no regulators. It has been designed to be deployed as a do it yourself kit. In tests it was found that any plastic container can carry the chemicals, from 2L cold drink containers to 4L zip lock bags (this is tricky as the waste product must be kept away from the oxygen output, a 400/500ml soft drink container can be used as a waste product trap in the oxygen line).

Note the reaction is mildly exothermic and can go as high as 55 degree Celsius, but most food grade plastic containers can withstand this type of heat generation.

Directions:

1. Decide on the length and flow rate required. Remember the flow rate can be increased by adding more accelerator, but cannot be decreased.

    1 Accelerator capsule is equal to roughly 2 to 4LPM of oxygen per minute (40 minute run time)
    2 Accelerator capsules are equal to roughly 4 to 8LPM of oxygen per minute (20 minute run time)

    Example of using one(1) accelerator capsule:
    Half a bottle of OXYpowder can be used if only 20 minutes of medium flow oxygen is required.
    a Quarter bottle of OXYpowder will produce 10 minutes of medium flow rate (2 to 4LPM)

2. Place dry OXYpowder in the generator container.

3. Add 500mL of water to the container (2x bottles).

4. Open capsule(s) over the opening of the container and shake it into the solution.
   Depending on ambient temperature the unit can take up to 2 minutes to get to the desired oxygen rate.
   Using water at 30 to 40 degree Celsius will result is a quicker startup, **DO NOT USE BOILING WATER**

5. Make sure there is a distilled water trap between the mask and the OXYjery container.
   Once oxygen generation starts diminishing, the container can again be gently swirled to increase flow.

If a partial bottle of OXYpowder was used, it is safe to store the container for 13 hours and just add more OXYpowder to the container to start oxygen production, this is only true for partial charges of OXYpowder.

Once reaction has ended the unit needs to be cleaned out.

The container does not need to be dry before the next batch is loaded.

WARNING: Do not restrict or close off the output nozzle of the generator.
WARNING: Always handle product with gloved hands, to prevent contamination.
WARNING: Do not pre-load OXYpowder for storage in the container even if it is completely dry.
WARNING: Do not use boiling water.
NOTE: This product should not be used as a medication as it has not been registered with SAHPRA
NOTE: Always try to use 500 ml of water, in an emergency as low as 400ml of water can be used, waste product would then be more difficult to remove.

Summary from SDS, this is not a substitute for the GHS complaint SDS document,

Signal Word:
DANGER

Hazard statements:

H304	Harmful if swallowed.
H318	Causes serious eye damage.

Precautionary statements:

P501	Dispose of contents and container according to federal, state/provincial and municipal regulations.
P305 + P351	IF IN EYES: Rinse cautiously with water for several minutes.
P337 + P313 + P338	If eye irritation persists: Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
P370 + P378	In case of fire: Use water spray for extinction.
P312	Call a doctor/physician if you feel unwell.
P405	Store locked up.
P264	Wash hands, forearms, and other exposed areas thoroughly after handling.
P280	Wear gloves, eye protection.
P261	Avoid breathing mist, spray, vapours.
P271	Use only outdoors or in a well-ventilated area.

First-aid measures general:
Check the vital functions.

Unconscious:	maintain adequate airway and respiration.
Respiratory arrest:	Artificial respiration or oxygen.
Cardiac arrest:	Perform resuscitation.
Victim conscious with laboured breathing:	half-seated.
Victim in shock:	On his/her back with legs slightly raised.
Vomiting:	Prevent asphyxia/aspiration pneumonia.

Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain.
Depending on the victim's condition: doctor/hospital.

First-aid measures after inhalation:
Remove the victim into fresh air.
Respiratory problems: Consult a doctor/medical service.

First-aid measures after skin contact:
Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

First-aid measures after eye contact:
Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion:
Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Give activated charcoal.
Call Poison Information Centre 0861-555-777 (http://www.sun.ac.za/poisoncentre).
Consult a doctor/medical service if you feel unwell.
Ingestion of large quantities: Immediately to hospital.

Suitable extinguishing media: Use water. Do not use dry chemicals or foams. CO_2 or Halon may provide limited control. Flood fire area with water from a distance. Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out.

Unsuitable extinguishing media: Dry chemical. Foam.