

Title	IMDG Code 2016 / SUPPLEMENT / MFAG / Table 3
Effective Date	1-1-2012
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Note	Incorporating Amendment 35-10

TABLE 3

OXYGEN ADMINISTRATION & CONTROLLED VENTILATION

Oxygen is necessary for life. Some intoxications may interfere with normal oxygenation of the blood or tissues. In particular, oxygen can be lifesaving to casualties who have inhaled smoke and other toxic gases but it needs to be given with all speed. Basic training is required to administer oxygen.

Diagnosis

- There is difficulty in breathing with an increased rate at first (over 30 per minute). Later it may become slow and stop.
- The pulse is rapid, usually over 100 per minute.
- There is blueness of the skin with purple lips and tongue.
- The casualty may be agitated at first but become apathetic, with muscular weakness. Unconsciousness may follow this.
- The pupils of the eyes will react to light at first. If they become large and do not react to light, life is in danger.

Lack of oxygen is an emergency

Treatment

- Give oxygen by means of a face mask. It makes assisted or controlled ventilation possible. It is better to have the casualty well oxygenated with controlled artificial respiration than to have him poorly oxygenated from breathing spontaneously.
- Place a mask over the nose and mouth. It is essential that the face mask is held firmly in place so as to avoid leakage.



- Check that the equipment is correctly assembled according to the manufacturer's instructions and that sufficient oxygen is contained in the cylinder (a cylinder of 2.5 litre capacity, filled under a pressure of 200 bar, delivers 500 litres oxygen).

Full advice on Oxygen Administration: See Appendix 3

The commonest emergency requiring medical assistance on board is **toxic gas inhalation from fires or specific toxic gases**. Combustion in fires on board may well involve substantial release of carbon monoxide and hydrocyanide. In these cases oxygen should be given at a flow rate of eight litres per minute.

In life-threatening conditions, such as lung oedema or circulatory failure, oxygen should also be given at a flow rate of eight litres per minute.

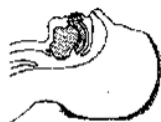
Warning: Smoking, a naked flame or light fires must not be allowed in the same room during the administration of oxygen because of the risk of fire.

SIGNS & SYMPTOMS

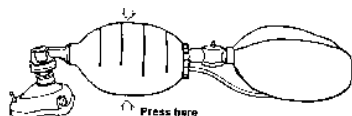
Not breathing but heart is beating

TREATMENT

- Ensure that a clear airway has been established.
- A Guedel airway should be inserted. If insertion of an airway cannot be achieved, the chin should be pulled forward throughout the administration of oxygen. If the casualty has seizures due to the lack of oxygen, administration of oxygen may be difficult but is essential.



- Use a positive pressure manual operated oxygen resuscitator in accordance with manufacturer's instruction.



- Give oxygen at a flow rate of 8 litres per minute. The bag should be squeezed steadily and firmly and released about 12 times a minute.
- Always maintain a regular check on the pulse in the neck. The absence of a pulse indicates the need for 15 chest compressions to every two inflations.
- If gagging occurs, remove the airway.
- Once the casualty is breathing spontaneously, put him in the recovery position.

SIGNS & SYMPTOMS

Breathing is difficult

- Make sure difficulty in breathing is not due to airway obstruction: **See Table 2**

- The casualty should be connected to an oxygen giving set through a simple disposable face mask (non-venturi type) placed securely over the face.
- Oxygen should be used at a flow rate of 6-8 litres per minute.
- Oxygen should be continued until the casualty no longer has difficulty in breathing and has a normal healthy colour.