

Title	IMDG Code 2016 / SUPPLEMENT / MFAG / Table 9
Effective Date	1-1-2012
Invalid from	1-1-2014
Note	Incorporating Amendment 35-10

TABLE 9

INHALATION OF CHEMICALS

Inhalation of chemicals may cause suffocation (asphyxia) due to

- obstruction to breathing in the throat or the air passage through spasm of the air tubes or by swelling of the linings of the voice box due to irritant fumes;
- fluid in the lung air spaces caused by irritant fumes;
- poisoning of the blood which prevents the carriage or use of oxygen in the body caused by, for example, carbon monoxide and cyanide;
- poisoning of the mechanism of breathing in the chest (e.g. by organophosphate pesticides) or the brain (e.g. by chlorinated hydrocarbons);
- gases which do not support life because they replace oxygen in the atmosphere (e.g. carbon dioxide, nitrogen).

Vapours of volatile liquids often have a pleasant or disagreeable odour. They may cause lightheadedness, dizziness, headache or nausea.

A few gases have delayed corrosive effects on the lungs.

For advice on **CPR** in **cases of suffocation**: See **Table 2**

For advice on **chemical hazards of fire**: See **Appendix 9**

For advice on **chemical hazards of welding**: See **Appendix 9**

WARNING: Any casualty who has been gassed and has impaired consciousness must NOT be treated with morphine.

SIGNS & SYMPTOMS

Soreness of throat, hoarseness or cough

Treatment

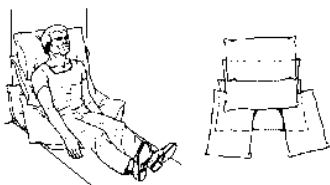
- Remove the casualty from the polluted atmosphere, have him rinse his mouth and give one glass of water to drink.

SIGNS & SYMPTOMS

Dry cough, mild breathlessness and wheezing

Treatment

- The casualty should be put to bed and placed in the high sitting-up position.



SIGNS & SYMPTOMS

Severe breathlessness and wheezing

Treatment

- If breathlessness or wheezing are present, give oxygen at a flow rate of 8 litres per minute until symptoms resolve.
- Additionally, administer by spacer device: 200 µg salbutamol **or** 500 µg terbutaline **and** 250 µg beclomethasone **or** 400 µg budesonide every 15 minutes for the first hour.
- At the same time: **RADIO FOR MEDICAL ADVICE.**
- If breathlessness and wheezing persist after the first hour, continue with oxygen and repeat administration of salbutamol/terbutaline and beclomethasone/budesonide every two hours for the next ten hours, and then four times a day until symptoms resolve.

SIGNS & SYMPTOMS

Severe breathlessness and frothy sputum, blue discolouration of the skin, anxiety and sweating (pulmonary oedema)

Treatment

- Casualties must be handled extremely carefully. All strain must be avoided.
- **RADIO FOR MEDICAL ADVICE.**
- Arrange for evacuation. The casualty will need to be transferred to a shore hospital as soon as possible.

Further advice on breathing difficulty: See Appendix 9

- Give oxygen, salbutamol/terbutaline and beclomethasone/budesonide as above.
- Use a sucker, if available, to get rid of the frothy secretions.
- If the casualty is very breathless, give 50 mg furosemide (frusemide) by intramuscular injection to increase the urine output.

- If symptoms persist, continue with oxygen and repeat administration of salbutamol/terbutaline and beclomethasone/budesonide every two hours for the next ten hours, and then four times a day until symptoms resolve.

SIGNS & SYMPTOMS

Fever, breathlessness, productive cough, increased pulse rate (over 110 per minutes)

Treatment

• RADIO FOR MEDICAL ADVICE

- The casualty should be put to bed and placed in the high sitting-up position.

Further advice on diagnosis of breathing problems: See Appendix 9

- Give 500 mg amoxicillin every eight hours. **NOTE:** Some are allergic to penicillins including amoxicillin. In such cases give 500 mg erythromycin four times daily.
- If the patient is breathless, wheezing or blue, oxygen should be given continuously together with 200 µg salbutamol or 500 µg terbutaline four times daily by spacer device, until the symptoms and signs improve.

FOLLOW-UP

A patient who has had significant exposure or any symptoms related to exposure should be kept warm in bed and closely observed for 48 hours and RADIO MEDICAL ADVICE OBTAINED.