

SAFETY accessories

Handling
in complete safety



Safety accessories

Handling cryogenic liquids, and liquid nitrogen in particular (-196°C), requires strict rules to be followed.

They are designed to prevent two essential hazards: anoxia and burns by contact or splashing.

THE RISK OF ANOXIA

By volume, air contains 21% oxygen and 78% nitrogen. At atmospheric pressure, liquid nitrogen vaporises at over -196°C. Every litre of liquid then transforms into 680 litres of gas.

In a cryogenic room, natural evaporation from containers, from filling them and handling stored samples causes the liquid nitrogen to vaporise. Nitrogen is insidious: like any other odourless neutral gas.

If the room is not sufficiently ventilated, the output of gaseous nitrogen can result in a dilution of the atmospheric oxygen.

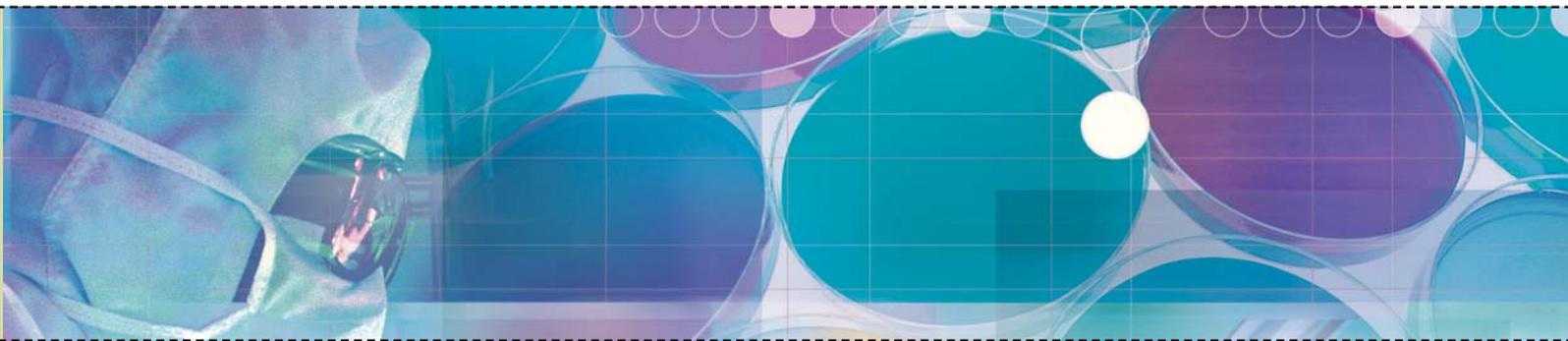
-Anoxia-related hazards appear when the oxygen content falls below about 18% and varies from one individual to another. The symptoms run from reduced reflexes to loss of consciousness.

How do you protect yourself?

- The room cryogenic containers are put in should be suitably ventilated.
- The oxygen content should be monitored continuously. Any significant reduction must trigger an alarm obvious inside and outside the room.
- The oxygen meter is an item of safety equipment designed for the continuous personal protection of users. It enables all personnel to effectively control the risk of under-oxygenation. A pre-set klaxon instantly signals danger situations.



Ref: 1400 104



BURNS FROM SPLASHING

When handling samples and more generally whenever liquid nitrogen is being used, it is important to protect yourself against hazards from splashing. This can cause cryogenic burns that can have serious consequences, especially when the eyes or face are involved.

Before attempting any handling, apart from wearing suitable gloves, it is necessary to put on safety goggles or a protective visor. Wearing spectacles is no protection.

To protect your feet, wearing closed shoes is recommended.



Protective goggles
Ref: HS002000



Protective visor Ref: 1800281

BURNS BY CONTACT

Skin contact with cold matter causes cryogenic burns. The internal contents of equipment or samples must never be touched or held with a bare hand.

All handling requires protective gloves suitable for use in a cryogenic environment to be worn.

Note that hands must never under any circumstances be immersed in liquid nitrogen, even when they are protected.

COMPLYING
WITH THE REQUI-
REMENTS OF EC
DIRECTIVE
EEC/89/686
STANDARD
EN340



Cryogenic gloves
Size 10 Ref: 1800643
Size 11 Ref: 1800644

PROTECTIVE EQUIPMENT



Apron
One size
Ref: 1800645



Jacket
Size S Ref: 1800646
Size M Ref: 1800647
Size L Ref: 1800648



Trousers
Size S (38-46) Ref: 1800649
Size M (46-50) Ref: 1800650
Size L (50-54) Ref: 1800651



Gaiters
Size M (38-42) Ref: 1800652
Size L (42-46) Ref: 1800653
Size XL (46-50) Ref: 1800654

Contact

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