



## MSDS Interspiro Spiroscape EEBD (compressed breathing air)

### 1. Product and company information

Chemical name; Class: air

**Synonyms:** Medical air, breathing air, compressed air

Chemical family name: Non-flammable gas

**Formula:** Not applicable.

**Product use:** Breathing, for escape

**Company name:** INTERSPIRO AB

Box: 2853

City: Täby

Zip: 187 28

Country: Sweden

Info phone num: +46 8 636 5100

### 2. Hazard identification

#### Emergency overview:

Air is a colorless, odorless gas. The main health hazards associated with exposure to this gas are related to the high pressure. Contact with rapidly expanding gases from a cylinder that is suddenly released can cause frostbite to exposed skin or damage to eyes. Air is generally considered non-flammable, however, air will support combustion. A moderate cylinder rupture hazard exists when air, which is under pressure, is subject to heat or flames.

#### Inhalation:

Air is non-toxic and necessary to support life.

#### Contact with skin or eyes:

Contact with rapidly expanding gases (which are released under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain after contact with liquid can quickly subside. Contact with the rapidly expanding vapors released the high pressure cylinder may cause freezing of the eye. Permanent eye damage or blindness could result.

#### Health effects or risks from exposure:

**Acute:** None.

**Chronic:** None.

**Target organs:**

**Acute:** None.

**Chronic:** None

### 3. Composition and information on ingredients

Mixed air is a mixture of gases. The primary components of air, and the approximate concentration of each component, are listed below.

Nitrogen 79%

Oxygen 21%

There are no specific exposure limits applicable to air. There are no specific exposure limits for nitrogen. Nitrogen is a simple asphyxiant (sa). oxygen levels should be maintained above 19.5%. There are no specific exposure limits for oxygen.

### 4. First-aid measures

In case of frostbite, place the frostbitten part in warm water. Do not use hot water. If warm water is not available, or is impractical to use, wrap the affected parts gently in blankets. Alternatively, if the fingers or hands are frostbitten, place the affected area of the body in the armpit. Encourage victim to gently exercise the affected part while being warmed. Seek immediate medical attention.

Medical conditions aggravated by exposure: Knowledge of the available information suggest that over-exposure to air is unlikely to aggravate existing medical conditions.

### 5. Fire-fighting measures

**Flash point:** Not applicable.

**Auto ignition temperature:** Not applicable.

**Flammable limits (in air by volume, %):** Not applicable..

**Fire extinguishing materials:** Non-flammable. Air will support combustion of flammable materials. Use extinguishing media appropriate for surrounding fire.

**Unusual fire and explosion hazards:** Air does not burn; however, cylinders, when involved in fire, may rupture or burst in the heat of the fire.

**Explosion sensitivity to mechanical impact:** Not sensitive.

**Explosion sensitivity to static discharge:** Not sensitive.

**Special fire-fighting procedures:**

Incipient fire responders should wear eye protection. Structural fire-fighters must wear self-contained breathing apparatus and full protective equipment, if possible, shut-off the flow of compressed air supporting the fire. Immediately cool the cylinders with water spray from maximum distance. When cool, move cylinders from fire area, if without risk.

## 6. Accidental release measures

Minimum personal protective equipment should be safety glasses. Locate and seal the source of the leaking gas. If this does not stop the release (or if it is not possible to reach the valve), allow the gas to release in-place or remove it to a safe area and allow the gas to be released there. If leaking incidentally from the cylinder or its valve, contact your supplier.

## 7. Handling and storage

**Storage and handling practices:** Compressed gases can present significant safety hazards. Store cylinders away from heavily trafficked areas and emergency exits. Post "no smoking or open flames" signs in storage or use areas.

**Special precautions for handling gas cylinders:** Protect cylinders against physical damage. Store in cool, dry, well-ventilated, fireproof area, away from flammable or combustible materials and corrosive atmospheres. Store away from heat and ignition sources and out of direct sunlight. Do not allow area where cylinders are stored to exceed 52 deg. C (125 deg. F). Isolate from incompatible materials including flammable materials which can burn violently.

The following rules are applicable to situations in which cylinders are being used:

**Before use:** Do not drag, slide or roll cylinders. Do not drop cylinders or permit them to strike each other. Secure cylinders firmly. Leave the valve protection cap in-place (where provided) until cylinder is ready for use.

**During use:** Do not heat cylinder by any means to increase the discharge rate of the product from the cylinder. Use check valve in discharge line to prevent hazardous backflow into the cylinder. Do not use oils or grease on gas-handling fittings or equipment.

**After use:** Close main cylinder valve. Replace valve protection cap (where provided). Mark empty cylinders "empty".

**Note:** Cylinders must not be recharged except by or with the consent of owner.

## 8. Exposure Controls – Personal Protection

**Personal Protection:** None necessary.

## 9. Physical and Chemical Properties

**Physical state at 20 °C:** Gas.

**Colour:** Colourless.

**Odour:** None.

**Molecular weight:** 29

**Melting point [°C]:** Not applicable.

**Boiling point [°C]:** Not applicable.

Vapor pressure [20°C]: Not applicable.

Relative density, gas (air=1): 1

Relative density, liquid (water=1): Not applicable.

Solubility in water [mg/l]: Not known, but considered to have low solubility.

## 10 Stability and reactivity

Hazardous decomposition products: None.

Chemical stability: Stable under normal conditions.

## 11 Toxicological information

Toxicity information: No known toxicological effects from this product.

## 12 Ecological information

Ecological effects information: No known ecological damage caused by this product.

## 13 Disposal considerations

General: May be vented to atmosphere.

## 14 Transport information

UN number: 1002

Labeling ADR, IMDG, IATA



2.2: Non flammable, non toxic gas

### Land transport

ADR/RID

H.I. nr: 20

UN proper shipping name: Air, Compressed

Transport hazard class(es): 2

ADR/RID Classification code: 1 A

Packing Instruction(s) - General: P200

Tunnel Restriction: E: Passage forbidden through tunnels of category E.

### Sea transport

- IMO-IMDG code

Proper shipping name: Air, Compressed

Class: 2.2

**IMO Packing group:** P200

- Emergency Schedule (EmS) - Fire: F-C
- Emergency Schedule (EmS) - : S-V

Spillage

- Instructions - Packing: P200

### **Air transport**

- ICAO/IATA

**Proper shipping name:** Air, Compressed

**Class:** 2.2

**Passenger and Cargo Aircraft:**

- Packing instruction: 200

**Cargo Aircraft only:**

- Packing instruction: 200

Avoid transport on vehicles where the load space is not separated from the driver's compartment.

Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

Before transporting product containers:

- Ensure that containers are firmly secured.
- Ensure cylinder valve is closed and not leaking.
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.
- Ensure there is adequate ventilation.
- Compliance with applicable regulations.

## **15 Regulatory information**

Safety, health and environmental regulations/legislation specific for the substance or mixture:

Ensure all national/local regulations are observed.

## **16 Other information**

Contact with combustible material may cause fire.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.

**Disclaimer of Liability:** Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

Effective date: October 03, 2012