



## Material Safety Data Sheet Synthetic Air

**AXCEL GASES**

Creation Date: 22.02.2008

MSDS No. : AX-12  
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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

**Product name:** Synthetic Air  
**Chemical formula:** Mixture of N2 and O2  
**Known uses:** Not known  
**Company:** Axcel Gases  
**Head Office:**  
1K/49, NIT, Faridabad, 121001, India  
**Email:** [info@axcelgases.com](mailto:info@axcelgases.com)  
**Works:**  
80 KM Delhi-Jaipur Highway, Distt. Rewari, 123106 Haryana,  
India  
**Email:** [info@axcelgases.com](mailto:info@axcelgases.com)

### 2. HAZARDS IDENTIFICATION

**Risk advice to man and the environment**  
Compressed gas.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Preparation:** Preparation.  
**Components/Impurities**  
**Contains the following components:**  
**Oxygen** <= 20 %  
**CAS Nr:** 7782-44-7      **EINECS Nr.:** 231-956-9  
**EC classification of pure substance:**  
O; R8  
  
**Nitrogen** >= 80 %  
**CAS Nr:** 7727-37-9      **EINECS Nr.:** 231-783-9  
**EC classification of pure substance:**  
Not classified as hazardous to health.

### 4. FIRST AID MEASURES

**Inhalation:** Not hazardous  
**Ingestion:** Ingestion is not considered a potential route of exposure.

### 5. FIRE FIGHTING MEASURES

**Specific hazards:** Exposure to fire may cause containers to rupture/explode. Non Flammable.  
**Hazardous combustion products:** None.  
**Suitable extinguishing media:** All known extinguishants can be used.  
**Specific methods:** Move container away or cool with water from a protected position.

### 6. ACCIDENTAL RELEASE MEASURES

### 7. HANDLING AND STORAGE

**Handling**  
Suck back of water into the container must be prevented. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.

**Storage**  
Observe "Technische Regeln Druckgase (TRG) 280 Ziffer 5" Secure cylinders to prevent them falling. Keep container below 50°C in a well ventilated place.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Personal protection:** Carry working gloves and protection shoes while handling gas cylinders.



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### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### General information

**Appearance/Colour:** Colourless gas.

**Odour:** None.

**Important information on environment, health and safety Molecular weight:** 32 g/mol (O<sub>2</sub>). 28 g/mol (N<sub>2</sub>).

**Melting point:** -219 °C (O<sub>2</sub>). -210 °C (N<sub>2</sub>).

**Boiling point:** -183 °C (O<sub>2</sub>). -196 °C (N<sub>2</sub>).

**Critical temperature:** -118 °C (O<sub>2</sub>). -147 °C (N<sub>2</sub>).

**Autoignition temperature:** Not applicable.

**Flammability range:** Not applicable.

**Relative density, gas:** 1,1 (O<sub>2</sub>). 0,97 (N<sub>2</sub>).

**Solubility mg/l water:** 39 mg/l (O<sub>2</sub>). 20 mg/l (N<sub>2</sub>).

**Maximum filling pressure (bar):** 200 bar

### 10. STABILITY AND REACTIVITY

**Stability and reactivity:** Stable under normal conditions.

### 11. TOXICOLOGICAL INFORMATION

**General:** No known toxicological effects from this product.

### 12. ECOLOGICAL INFORMATION

**General:** No known ecological damage caused by this product.

### 13. DISPOSAL CONSIDERATIONS

**General :** Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.  
**EWC Nr. 16 05 05**

### 14. TRANSPORT INFORMATION

#### ADR/RID

Class: 2

Classification Code: 1A

#### UN number and proper shipping name

UN 1956 Compressed Gas, n.o.s. (Nitrogen and Oxygen)

UN 1956 Compressed Gas, n.o.s. (Nitrogen and Oxygen)

Labels: 2.2

Hazard Number: 20

Packing Instruction: P200

#### IMDG

Class : 2.2

#### UN number and proper shipping name

UN 1956 Compressed Gas, n.o.s. (Nitrogen and Oxygen)

Labels : 2.2

Packing Instruction : P200

EmS: FC, SV

#### IATA

Class : 2.2

#### UN number and proper shipping name

UN 1956 Compressed Gas, n.o.s. (Nitrogen and Oxygen)

Labels : 2.2

Packing Instruction: P200

#### Other transport information

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



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**15. REGULATORY INFORMATION**

**Number in Annex I of Dir 67/548**

Not included in Annex I.

**EC Classification**

Not classified as hazardous to health.

**Labelling**

**- Symbols**

No symbol required.

**- Safety Phrases**

S9 Keep container in well ventilated place.

**Further national regulations:-**

Pressure Vessel Regulation

Regulations for the prevention of industrial accidents

**Water pollution class:** Not polluting to waters according to VwVWS from 17.05.99

**TA-Luft:** Not classified according to TA-Luft.

**16. OTHER INFORMATION**

**Wording of risk sentences from chapter 3**

R8 Contact with combustible material may cause fire.

RAs Asphyxiant in high concentrations.

Ensure all national/local regulations are observed. The hazard of asphyxiation is often overlooked and must be stressed during operator training. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

**Advice**

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