Safety data sheet
Synthetic Air

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name
Synthetic Air
Trade name
Synthetic Air
Synthetic Air, free of hydrocarbons
Chemical formula Mixture of N2 and O2
Known uses
Not known.
Company identification
Linde AG, Linde Gas Division, Seitnerstraße 70, D-82049 Pullach
E-Mail Adress Direkt@de.linde-gas.com
Emergency phone numbers (24h): 089-7446-0

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.

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 (O2). 28 g/mol (N2).
Melting point: -219 °C (O2). -210 °C (N2).
Boiling point: -183 °C (O2). -196 °C (N2).
Critical temperature: -118 °C (O2). -147 °C (N2).
Autoignition temperature: Not applicable.
Flammability range: Not applicable.
Relative density, gas: 1,1 (O2). 0,97 (N2).
Solubility mg/l water: 39 mg/l (O2). 20 mg/l (N2).
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.

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
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. Details given in this document are believed to be correct at the time of going to press.
Further informations
Linde safety adivce
No. 7 Safe handling of gas cylinders and cylinder bundles
No. 11 Transport of gas receptacles in vehicles

End of document