

Safety Data Sheet P-4560

according to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979 Revision date: 07/02/2015 Supersedes: 06/24/2015

# SECTION: 1. Product and company identification

1.1. Product identifier

Product form : Substance
Name : Air, compressed

Formula : Air: mixture of 19.5 to 23.5 percent oxygen, balance nitrogen; or air compressed from the

atmosphere

Other means of identification : Air, Medipure Air, Plasma Air, Zero Air, Air - Diving Grade

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Industrial use

Medical applications.

Diving Gas (Underwater Breathing)

### 1.3. Details of the supplier of the safety data sheet

Praxair, Inc.

39 Old Ridgebury Road

Danbury, CT 06810-5113 - USA

T 1-800-772-9247 (1-800-PRAXAIR) - F 1-716-879-2146

www.praxair.com

### 1.4. Emergency telephone number

Emergency number : Onsite Emergency: 1-800-645-4633

CHEMTREC, 24hr/day 7days/week

— Within USA: 1-800-424-9300, Outside USA: 001-703-527-3887

(collect calls accepted, Contract 17729)

## **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

### Classification (GHS-US)

Compressed gas H280

## 2.2. Label elements

# **GHS-US labeling**

Hazard pictograms (GHS-US)



011004

Signal word (GHS-US) : WARNING

Hazard statements (GHS-US) : H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED

CGA-HG24 - MAY SUPPORT COMBUSTION.

Precautionary statements (GHS-US) : P202 - Do not handle until all safety precautions have been read and understood

CGA-PG05 - Use a back flow preventive device in the piping.

CGA-PG20+CGA-PG10 - Use only with equipment of compatible materials of construction and

rated for cylinder pressure.

CGA-PG06 - Close valve after each use and when empty.

CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F).

# 2.3. Other hazards

No additional information available

# 2.4. Unknown acute toxicity (GHS-US)

No data available

EN (English US) SDS ID: P-4560 1/8



Safety Data Sheet P-4560

according to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979 Revision date: 07/02/2015 Supersedes: 06/24/2015

### **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

Name : Air, compressed

Name	e	Product identifier	%
Air		(CAS No) 132259-10-0	100

#### 3.2. Mixture

Not applicable

# **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

First-aid measures after inhalation : Adverse effects not expected from this product.

First-aid measures after skin contact : Adverse effects not expected from this product.

First-aid measures after eye contact : Adverse effects not expected from this product. In case of eye irritation: Rinse immediately with

plenty of water. Consult an ophthalmologist if irritation persists.

First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

None.

### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

## 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

Firefighting instructions

: Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.

Special protective equipment for fire fighters

Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.

Specific methods

Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas containers to rupture. Cool endangered containers with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems.

Stop flow of product if safe to do so.

Use water spray or fog to knock down fire fumes if possible.

## **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

General measures

: Evacuate area. Ensure adequate air ventilation. Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. Stop leak if safe to do so.

### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

EN (English US) SDS ID: P-4560 2/8



# Safety Data Sheet P-4560

according to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication. Date of issue: 01/01/1979 Revision date: 07/02/2015 Supersedes: 06/24/2015

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

See also sections 8 and 13.

## **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Precautions for safe handling

: Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. For other precautions in using this product, see section 16.

Safe use of the product

The suitability of this product as a component in underwater breathing gas mixtures is to be determined by or under the supervision of personnel experienced in the use of underwater breathing gas mixtures and familiar with the physiological effects, methods employed, frequency and duration of use, hazards, side effects, and precautions to be taken.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Store in a cool, well-ventilated place. Store and use with adequate ventilation. Store only where temperature will not exceed 125°F (52°C). Firmly secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods.

OTHER PRECAUTIONS FOR HANDLING, STORAGE, AND USE: When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

### 7.3. Specific end use(s)

None.

## SECTION 8: Exposure controls/personal protection

# 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Eye protection

: Wear safety glasses with side shields.

Skin and body protection

: Wear work gloves and metatarsal shoes for cylinder handling. Protective equipment where needed. Select in accordance with OSHA 29 CFR 1910.132, 1910.136, and 1910.138.

Respiratory protection

: When workplace conditions warrant respirator use, follow a respiratory protection program that meets OSHA 29 CFR 1910.134, ANSI Z88.2, or MSHA 30 CFR 72.710 (where applicable). Use an air-supplied or air-purifying cartridge if the action level is exceeded. Ensure that the respirator has the appropriate protection factor for the exposure level. If cartridge type respirators are used, the cartridge must be appropriate for the chemical exposure (e.g., an organic vapor cartridge). For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).

EN (English US) SDS ID: P-4560 3/8



Safety Data Sheet P-4560

according to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979 Revision date: 07/02/2015 Supersedes: 06/24/2015

# **SECTION 9: Physical and chemical properties**

9.1. lı	nformation on	basic phys	sical and ch	nemical pro	perties

Physical state : Gas

Appearance : Colorless gas.

Molecular mass : 28.975 g/mol

Color : Colorless

Odor : Odorless.

Odor threshold : No data available pH : Not applicable.

Relative evaporation rate (butyl acetate=1) : No data available Relative evaporation rate (ether=1) : Not applicable.

Melting point : No data available reezing point : -216.2 °C

Boiling point : -194.3 °C

Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : Not applicable.
Relative vapor density at 20 °C : No data available
Relative density : No data available

Density : 1.2 kg/m<sup>3</sup>

Relative gas density : 1

Solubility : Water: 0.0292 %
Log Pow : Not applicable.
Log Kow : Not applicable.
Viscosity, kinematic : Not applicable.
Viscosity, dynamic : Not applicable.
Explosive properties : Not applicable.

Oxidizing properties : None.

Explosion limits : No data available

9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

10.1	Poactivity	

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

EN (English US) SDS ID: P-4560 4/8



Safety Data Sheet P-4560

according to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979 Revision date: 07/02/2015 Supersedes: 06/24/2015

# **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Not classified

pH: Not applicable.

Serious eye damage/irritation : Not classified

pH: Not applicable.

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated : Not classified

exposure)

Aspiration hazard : Not classified

# **SECTION 12: Ecological information**

### 12.1. Toxicity

Ecology - general : No ecological damage caused by this product.

### 12.2. Persistence and degradability

Air, compressed		
Persistence and degradability	No ecological damage caused by this product.	
Air (132259-10-0)		
All (132239-10-0)		

### 12.3. Bioaccumulative potential

Air, compressed			
Log Pow Not applicable.			
Log Kow	Not applicable.		
Bioaccumulative potential No ecological damage caused by this product.			
Air (132259-10-0)			
Log Pow Not applicable for inorganic gases.			
Bioaccumulative potential No ecological damage caused by this product.			

# 12.4. Mobility in soil

Air, compressed			
Mobility in soil No data available.			
Air (132259-10-0)			
Ecology - soil No ecological damage caused by this product.			

#### 12.5. Other adverse effects

Effect on ozone layer : None.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

EN (English US) SDS ID: P-4560 5/8



Safety Data Sheet P-4560

according to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication. Date of issue: 01/01/1979 Revision date: 07/02/2015 Supersedes: 06/24/2015

# **SECTION 14: Transport information**

In accordance with DOT

Transport document description : UN1002 Air, compressed, 2.2

UN-No.(DOT) · UN1002

Proper Shipping Name (DOT) : Air, compressed

Transport hazard class(es) (DOT) : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115

Hazard labels (DOT) : 2.2 - Non-flammable gas

DOT Special Provisions (49 CFR 172.102)

: 78 - This entry may not be used to describe compressed air which contains more than 23.5 percent oxygen. An oxidizer label is not required for any oxygen concentration of 23.5 percent

### **Additional information**

Other information : No supplementary information available.

Special transport precautions : 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 there is adequate ventilation. - 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.

### Transport by sea

UN-No. (IMDG) : 1002

Proper Shipping Name (IMDG) AIR, COMPRESSED

Class (IMDG) 2 - Gases

Air transport

UN-No. (IATA) : 1002

Proper Shipping Name (IATA) : Air, compressed

Class (IATA) : 2

# **SECTION 15: Regulatory information**

# 15.1. US Federal regulations

Air, compressed			
SARA Section 311/312 Hazard Classes	Sudden release of pressure hazard		
	All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:		
Air	CAS No 132259-10-0	100	

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

## 15.2. International regulations

**CANADA** 

## Air (132259-10-0)

### **EU-Regulations**

EN (English US) SDS ID: P-4560 6/8



# Safety Data Sheet P-4560

according to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979 Revision date: 07/02/2015 Supersedes: 06/24/2015

### 15.2.2. National regulations

No additional information available

### 15.3. US State regulations

Air, compressed()	
U.S California - Proposition 65 - Carcinogens List	No
U.S California - Proposition 65 - Developmental Toxicity	No
U.S California - Proposition 65 - Reproductive Toxicity - Female	No
U.S California - Proposition 65 - Reproductive Toxicity - Male	No

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

Air (132259-10-0)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

## **SECTION 16: Other information**

Revision date
Other information

: 7/2/2015 12:00:00 AM

: When you mix two or more chemicals, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product. Before using any plastics, confirm their compatibility with this product.

Praxair asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information.

The opinions expressed herein are those of qualified experts within Praxair, Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use are not within the control of Praxair, Inc., it is the user's obligation to determine the conditions of safe use of the product.

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# Safety Data Sheet P-4560

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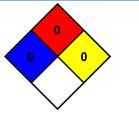
Date of issue: 01/01/1979 Revision date: 07/02/2015 Supersedes: 06/24/2015

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.



# **HMIS III Rating**

Health : 0 Minimal Hazard - No significant risk to health

Flammability : 0 Minimal Hazard
Physical : 3 Serious Hazard

SDS US (GHS HazCom 2012) - Praxair

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.