

# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985    Revision date: 08/31/2018    Supersedes: 10/26/2016

### SECTION: 1. Product and company identification

#### 1.1. Product identifier

Product form : Mixture  
 Trade name : Mixture of Phosphine and Hydrogen  
 Formula : Mixtures of 10-49 percent phosphine, balance hydrogen  
 Other means of identification : Ion Implantation Mixture PH3-H2

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

Use of the substance/mixture : Industrial use; Use as directed.

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

Praxair, Inc.  
 10 Riverview Drive  
 Danbury, CT 06810-6268 - USA  
 T 1-800-772-9247 (1-800-PRAXAIR) - F 1-716-879-2146  
[www.praxair.com](http://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: Hazard identification

#### 2.1. Classification of the substance or mixture

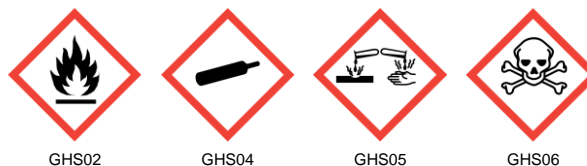
##### GHS-US classification

Pyr. Gas H250  
 Flam. Gas 1 H220  
 Press. Gas (Comp.) H280  
 Acute Tox. 1 (Inhalation:gas) H330  
 Skin Corr. 1B H314  
 Eye Dam. 1 H318  
 Aquatic Acute 2 H401

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :

- H220 - EXTREMELY FLAMMABLE GAS
- H250 - **CATCHES FIRE SPONTANEOUSLY IF EXPOSED TO AIR**
- H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED
- H314 - Causes severe skin burns and eye damage
- H330 - FATAL IF INHALED
- H401 - TOXIC TO AQUATIC LIFE
- CGA-HG04 - MAY FORM EXPLOSIVE MIXTURES WITH AIR
- CGA-HG11 - SYMPTOMS MAY BE DELAYED

Precautionary statements (GHS-US) :

- P202 - Do not handle until all safety precautions have been read and understood.
- P210 - Keep away from Heat/Open flames/Sparks/Hot surfaces. - No smoking



# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985    Revision date: 08/31/2018    Supersedes: 10/26/2016

- P260 - Do not breathe gas/vapors
- P271+P403 - Use and store only outdoors or in a well-ventilated place.
- P273 - Avoid release to the environment.
- P280+P284 - Wear protective gloves, protective clothing, eye protection, respiratory protection, and/or face protection.
- P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
- P381 - Eliminate all ignition sources if safe to do so.
- P405 - Store locked up.
- P501 - Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.
- CGA-PG05 - Use a back flow preventive device in the piping.
- CGA-PG17 - Use only with equipment purged with inert gas or evacuated prior to discharge from cylinder.
- CGA-PG20+CGA-PG10 - Use only with equipment of compatible materials of construction and rated for cylinder pressure.
- CGA-PG12 - Do not open valve until connected to equipment prepared for use.
- CGA-PG18 - When returning cylinder, install leak tight valve outlet cap or plug.
- 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

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%
Hydrogen	(CAS-No.) 1333-74-0	51 - 100
Phosphine	(CAS-No.) 7803-51-2	10 - 49

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should give oxygen. Call a physician.
- First-aid measures after skin contact : In case of contact, immediately flush affected areas with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse. Discard contaminated shoes.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately..
- 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

Symptoms/effects : SYMPTOMS MAY BE DELAYED.

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

Obtain medical assistance.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide, Dry chemical, Water spray or fog.

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

Fire hazard : EXTREMELY FLAMMABLE GAS. May ignite spontaneously in contact with air.



# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985 Revision date: 08/31/2018 Supersedes: 10/26/2016

Explosion hazard : EXTREMELY FLAMMABLE GAS. Forms explosive mixtures with air and oxidizing agents.

### 5.3. Advice for firefighters

Firefighting instructions

: **DANGER!**

#### Toxic, flammable high-pressure gas.

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.

If venting or leaking gas catches fire, do not extinguish flames. Flammable vapors may spread from leak, creating an explosive reignition hazard. Vapors can be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at locations distant from product handling point. Explosive atmospheres may linger. Before entering an area, especially a confined area, check the atmosphere with an appropriate device.

Special protective equipment for fire fighters

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

Other information

: Containers are equipped with a pressure relief device. (Exceptions may exist where authorized by DOT.).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures

: **DANGER!. Toxic, flammable high-pressure gas..** If venting or leaking gas catches fire, do not extinguish flames. Flammable vapors may spread from leak, creating an explosive reignition hazard. Vapors can be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at locations distant from product handling point. Explosive atmospheres may linger. Before entering an area, especially a confined area, check the atmosphere with an appropriate device.

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent waste from contaminating the surrounding environment. Prevent soil and water pollution. Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

### 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.

# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985 Revision date: 08/31/2018 Supersedes: 10/26/2016

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe gas/vapors. Use only with adequate ventilation or respiratory protection. Do not get liquid or vapor in eyes, on skin, or on clothing. Have safety showers and eyewash fountains immediately available.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Use only explosion-proof equipment.

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.

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

Storage conditions : Store only where temperature will not exceed 125°F (52°C). Post "No Smoking/No Open Flames" signs in storage and use areas. There must be no sources of ignition. Separate packages and protect against potential fire and/or explosion damage following appropriate codes and requirements (e.g. NFPA 30, NFPA 55, NFPA 70, and/or NFPA 221 in the U.S.) or according to requirements determined by the Authority Having Jurisdiction (AHJ). Always secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand when the container is not in use. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods. For other precautions in using this product, see section 16.

**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

Hydrogen (1333-74-0)		
ACGIH	Remark (ACGIH)	Simple asphyxiant
USA OSHA	Not established	
Phosphine (7803-51-2)		
ACGIH	ACGIH TLV-TWA (ppm)	0.05 ppm
ACGIH	ACGIH TLV-C (ppm)	0.15 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.4 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	0.3 ppm

# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985    Revision date: 08/31/2018    Supersedes: 10/26/2016

### 8.2. Exposure controls

- Appropriate engineering controls : Use an explosion-proof local exhaust system. Local exhaust and general ventilation must be adequate to meet exposure standards. **MECHANICAL (GENERAL): Inadequate - Use only in a closed system.** Use explosion proof equipment and lighting.
- In semiconductor process gas and other suitable applications, Praxair recommends the use of engineering controls such as gas cabinet enclosures, automatic gas panels (used to purge systems on cylinder changeout), excess-flow valves throughout the gas distribution system, double containment for the distribution system, and continuous gas monitors.
- Hand protection : Neoprene rubber (HNBR) /.
- Eye protection : Provide readily accessible eye wash stations and safety showers. Wear safety glasses when handling cylinders; vapor-proof goggles and a face shield during cylinder changeout or whenever contact with product is possible. Select eye protection in accordance with OSHA 29 CFR 1910.133.
- Skin and body protection : Wear metatarsal shoes and work gloves for cylinder handling, and protective clothing where needed. Wear appropriate chemical gloves during cylinder changeout or wherever contact with product is possible. Select per 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. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Physical state : Gas
- Color : Colorless
- Odor : decaying fish
- 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 : -133 °C (-208.8°F) Phosphine
- Freezing point : No data available
- Boiling point : -87.7 °C (-125.9°F) Phosphine
- Flash point : No data available
- Auto-ignition temperature : 38 °C (100 °F) Phosphine
- Decomposition temperature : No data available
- Flammability (solid, gas) : 1.6 - 98 vol % based on Phosphine
- Vapor pressure : No data available
- Relative vapor density at 20 °C : No data available
- Relative density : No data available
- Relative gas density : 0.237
- Solubility : Water: No data available
- Log Pow : Not applicable.
- Log Kow : Not applicable.
- Viscosity, kinematic : Not applicable.
- Viscosity, dynamic : Not applicable.
- Explosive properties : MAY FORM EXPLOSIVE MIXTURES WITH AIR.

# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985    Revision date: 08/31/2018    Supersedes: 10/26/2016

Oxidizing properties : None.  
Explosion limits : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under use and storage conditions as recommended below and in section 7.

### 10.3. Possibility of hazardous reactions

May occur.

### 10.4. Conditions to avoid

Temperatures in excess of 365°C (689°F).

### 10.5. Incompatible materials

Acids. Copper. Oxidizing agents, especially. Oxygen. Halogens.

### 10.6. Hazardous decomposition products

Hydrogen. Phosphorous. Phosphorus oxides. Release of poisonous gas.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Inhalation:gas: FATAL IF INHALED.

Mixture of Phosphine and Hydrogen	
ATE US (gases)	66.667 ppmV/4h
Phosphine (7803-51-2)	
LC50 inhalation rat (ppm)	10 ppmV/4h
ATE US (gases)	10 ppmV/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.

pH: Not applicable.

Serious eye damage/irritation : CAUSES SERIOUS EYE DAMAGE.

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 exposure : Not classified

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : VERY TOXIC TO AQUATIC LIFE.

# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985    Revision date: 08/31/2018    Supersedes: 10/26/2016

### 12.2. Persistence and degradability

Mixture of Phosphine and Hydrogen	
Persistence and degradability	No ecological damage caused by this product.
Hydrogen (1333-74-0)	
Persistence and degradability	No ecological damage caused by this product.
Phosphine (7803-51-2)	
Persistence and degradability	Not applicable for inorganic gases.

### 12.3. Bioaccumulative potential

Mixture of Phosphine and Hydrogen	
Log Pow	Not applicable.
Log Kow	Not applicable.
Bioaccumulative potential	No ecological damage caused by this product.
Hydrogen (1333-74-0)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	Not applicable.
Log Kow	Not applicable.
Bioaccumulative potential	No ecological damage caused by this product.
Phosphine (7803-51-2)	
Log Pow	Not applicable.
Log Kow	Not applicable.
Bioaccumulative potential	No ecological damage caused by this product.

### 12.4. Mobility in soil

Mixture of Phosphine and Hydrogen	
Mobility in soil	No data available.
Hydrogen (1333-74-0)	
Mobility in soil	No data available.
Ecology - soil	No ecological damage caused by this product.
Phosphine (7803-51-2)	
Mobility in soil	No data available.
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

### 12.5. Other adverse effects

Other adverse effects	: May cause pH changes in aqueous ecological systems.
Effect on ozone layer	: None.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Do not attempt to dispose of residual or unused quantities. Return container to supplier.

## SECTION 14: Transport information

In accordance with DOT	
Transport document description	: UN1953 COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S. (Inhalation Hazard Zone A), 2.3
UN-No.(DOT)	: UN1953
Proper Shipping Name (DOT)	: COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S. Inhalation Hazard Zone A
Class (DOT)	: 2.3 - Class 2.3 - Poisonous gas 49 CFR 173.115



# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985 Revision date: 08/31/2018 Supersedes: 10/26/2016

Hazard labels (DOT) : Poison Gas  
2.3 - Poison gas  
2.1 - Flammable gas



DOT Symbols : G - Identifies proper shipping name (PSN) requiring the addition of technical name(s) in parentheses following the PSN.

DOT Special Provisions (49 CFR 172.102) : 1 - This material is poisonous by inhalation (see 171.8 of this subchapter) in Hazard Zone A (see 173.116(a) or 173.133(a) of this subchapter), and must be described as an inhalation hazard under the provisions of this subchapter.

### 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) : 1953  
Proper Shipping Name (IMDG) : COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S.  
Class (IMDG) : 2 - Gases  
Division (IMDG) : 2.3 - Toxic gases

### Air transport

UN-No. (IATA) : 1953  
Proper Shipping Name (IATA) : COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S.  
Class (IATA) : 2

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Mixture of Phosphine and Hydrogen	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard Sudden release of pressure hazard

Phosphine (7803-51-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 313 - Emission Reporting	1 %

### 15.2. International regulations

#### CANADA





# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985 Revision date: 08/31/2018 Supersedes: 10/26/2016

### Hydrogen (1333-74-0)

Listed on the Canadian DSL (Domestic Substances List)

### Phosphine (7803-51-2)

Listed on the Canadian DSL (Domestic Substances List)

## EU-Regulations

### Phosphine (7803-51-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

## 15.2.2. National regulations

### Phosphine (7803-51-2)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
 Listed on the Japanese ISHL (Industrial Safety and Health Law)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Japanese Poisonous and Deleterious Substances Control Law  
 Listed on the Canadian IDL (Ingredient Disclosure List)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on the TCSI (Taiwan Chemical Substance Inventory)

## 15.3. US State regulations

### Mixture of Phosphine and Hydrogen()

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

### Hydrogen (1333-74-0)

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	

### Phosphine (7803-51-2)

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	

### Hydrogen (1333-74-0)

U.S. - Massachusetts - Right To Know List  
 U.S. - New Jersey - Right to Know Hazardous Substance List  
 U.S. - Pennsylvania - RTK (Right to Know) List

### Phosphine (7803-51-2)

U.S. - Massachusetts - Right To Know List  
 U.S. - New Jersey - Right to Know Hazardous Substance List



# Gas Mixture (Hydrogen Balance—10-49 percent Phosphine)

## Safety Data Sheet P-4872

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1985    Revision date: 08/31/2018    Supersedes: 10/26/2016

### Phosphine (7803-51-2)

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

### Other information

: 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.

Praxair SDSs are furnished on sale or delivery by Praxair or the independent distributors and suppliers who package and sell our products. To obtain current SDSs for these products, contact your Praxair sales representative, local distributor, or supplier, or download from [www.praxair.com](http://www.praxair.com). If you have questions regarding Praxair SDSs, would like the document number and date of the latest SDS, or would like the names of the Praxair suppliers in your area, phone or write the Praxair Call Center (Phone: 1-800-PRAXAIR/1-800-772-9247; Address: Praxair Call Center, Praxair, Inc, P.O. Box 44, Tonawanda, NY 14151-0044).

PRAXAIR and the Flowing Airstream design are trademarks or registered trademarks of Praxair Technology, Inc. in the United States and/or other countries.

### Revision date

: 08/31/2018

### NFPA health hazard

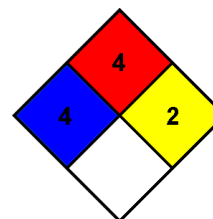
: 4 - Materials that, under emergency conditions, can be lethal.

### NFPA fire hazard

: 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.

### NFPA reactivity

: 2 - Materials that readily undergo violent chemical change at elevated temperatures and pressures.



### Hazard Rating

Health : 4 Severe Hazard - Life-threatening, major or permanent damage may result from single or repeated overexposures

Flammability : 4 Severe 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.*