



Material Safety Data Sheet Hydrogen, Compressed

Creation date: 27-Jul-2020

1 Identification of the substance/mixture and of the company/undertaking

Product name: Hydrogen, compressed
Chemical formula: H₂
Company identification: Harvest Wise Gases (H.K.) Company Limited
Emergency phone number (24hr): 25534121

2 Hazards identification

It is flammable high-pressure gas. If valve is opened to air, it may ignite and form explosive mixtures. It is a colorless, odorless, tasteless gas under ambient conditions.

3 Composition/information on ingredients

Components/Impurities: Hydrogen

CAS registry no. : 1333-74-0

EC no. (from EINECS) : 215-605-7

It does not contain any other components or impurities which can influence the classification of the product.

4 First aid measures

Ingestion

Ingestion is not considered a common mean of way of contact.

Inhalation

Headache, drowsiness, dizziness, excitation, excess salivation, vomiting, and unconsciousness may be caused by inhalation of moderate concentrations of hydrogen gas. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, apply artificial respiration. If breathing is difficult, Call a Doctor.

5 Firefighting measure

Specific hazards

Explosion or rupture may occur if the container is near fire source.

Harm from combustion products

None.

Suitable extinguishing media

All types of different fire extinguishers can be used.

Specific methods

Explosive firing or spontaneous reignition may occur. Thus don't try to extinguish a leaking gas flame unless it is absolutely required. Also, stopping the flow of the chemical should be carried out if possible.



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Special protective equipment for fire fighters

Self contained breathing apparatus should be used especially in confined spaces. Portable gas detector and walkie talkie should be carried by the fire fighters if the fire is in confined or enclosed spaces.

6 Accidental release measure

Personal precautions

Evacuate the area and ensure adequate air ventilation is provided. Try to eliminate any ignition sources if possible.

Self contained breathing apparatus should be used especially in confined spaces.

Environmental precautions

The release of the gases should be stopped by any possible methods.

Clean up methods

Natural ventilation or force draft ventilation of the contaminated area should be a standard procedure.

7 Handling and storage

Handling

Only properly manufactured and certified equipment should be used together with this chemical. The complete equipment should be ground to prevent spark which can cause firing or even explosion. Sucking back of water into the gas cylinder must be prevented. Close the cylinder valve after each use; keep closed even when empty. Never apply localized heat directly to any part of the cylinder. High temperatures may damage the cylinder, venting the cylinder contents.

Storage

The pressure vessel should be secured tightly in a well ventilated space and kept under 50°C.

Separating them from flammable gases. Always secure cylinder upright to keep them from falling or being knocked over.

8 Exposure controls/personal protection

Personal protection

Proper personal protective equipment should be worn, for example, chemical gloves, safety goggles, safety helmet.

Adequate ventilation is required. Smoking should be strictly prohibited. If without risk, all sources of ignition should be removed and shut off flow. Locate cylinder to a well-ventilated place. Required air supplied breathing apparatus response to demonstrated or suspected releases from the primary containment.



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9 Physical and chemical properties

General information

General appearance: Colourless gas.

Odour: odorless

Important information on environment, health and safety

Chemical formula: H₂

Molecular mass: 2 gmol⁻¹

Density: 0.07 kgm⁻³

Melting point: -259 °C

Boiling point: -253 °C

Critical temperature: -240 °C

Autoignition temperature: 560 °C

Vapor pressure: Not applicable

Magnetic susceptibility: Not applicable

Solubility in water: 1.6mg/l

10 Stability and reactivity

Stability and reactivity

It may react violently with oxidants and form explosive mixtures with air. .

11 Toxicological information

General

No known toxicological effects are found out.

12 Ecological information

General

No known ecological effects are found out.

13 Disposal considerations

General

Waste gas can be purged out to fully ventilated space. Don't release if there is a risk of forming an explosive mixture with air. Contact us for any special requirements.



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14 Transport information

IMDG

Class 2.1

UN number and proper shipping name

UN 1049 Hydrogen, compressed

Labels 2.1

Packing Instruction P200

EmS FD, SU

ADR/RID

Class 2 Classification Code 1F

UN number and proper shipping name

UN 1049 Hydrogen, compressed

UN 1049 Hydrogen, compressed

Labels 2.1 Hazard number 23

Packing Instruction P200

IATA

Class 2.1

UN number and proper shipping name

UN 1049 Hydrogen, compressed

Labels 2.1

Packing Instruction P200

Other transport information

Vehicle driver should have basic understanding of the risk of the chemical and what should be done in emergency.

The gas cylinder should be properly secured to prevent falling down when the vehicle is moving. The cylinder valves and safety devices would be checked by our professional personnel before the cylinders leave our company.

15 Regulatory information

General

All the local regulation should be strictly followed before using the gases. All the related personnel should receive proper training before using the gases.

Chemical safety assessment

Risk assessment should be carried out by proper qualified person before using the gases.



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16 Other information

This MSDS should be fully understood before using the gases. Contact us if you have any doubt. Meanwhile, We do not have any liability for damage or injury caused due the usage of this MSDS. Due to proper preparation of this MSDS, all the details are believed to be correct at the time of releasing.