



Material Safety Data Sheet Nitrogen, Refrigerated Liquid

Creation date: 13-Dec-2017

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

Product name: Nitrogen, refrigerated liquid
Chemical formula: N₂
Company identification: Harvest Wise Gases (H.K.) Company Limited
Emergency phone number (24hr): 25534121

2 Hazards identification

Since it is refrigerated gas, it can cause cryogenic burns and injury.

3 Composition/information on ingredients

Components/Impurities: Nitrogen, refrigerated liquid

CAS registry no. : 7727-37-9

EC no. (from EINECS) : 231-783-9

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

Asphyxiation may be caused if human is exposed to high concentrations. Victim may not be aware of asphyxiation. Symptoms may include unconsciousness or immobility. In low concentrations it may cause anesthetic effects. Dizziness, headache, nausea and loss of coordination may be the symptoms.

If emergency occurs, please remove the victim to open area. The rescue team should wear self contained breathing apparatus. Keep the victim warm and rested. Call a doctor immediately. If the victim stop breathing, artificial respiration should be applied. Call a doctor.

Eye/skin contact

Immediate flushing the eye and skin thoroughly with water for at least 15 minutes. In case of frostbite, flush with water for at least 15 minutes and obtain medical assistance from doctors immediately.

5 Firefighting measure

Specific hazards

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

Harm from combustion products

None.



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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.

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. The complete equipment should be stored away from fire source. Before emerging the gas from the gas cylinder, the whole system should be purged to remove all the residential gas. Just in case if you have any doubts, you are welcome to contact us at any time.

Storage

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

Separating them from oxidizing agent such as oxidant or oxidant gas is required.

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. When doing the gas welding or gas cutting, welding goggle with suitable optical filter lens is necessary. Welding mask or welding apron is highly recommended to



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wear.

9 Physical and chemical properties

General information

General appearance: Colourless gas.

Odour: little pungent smell

Important information on environment, health and safety

Chemical formula: N₂

Molecular mass: 14 g mol⁻¹

Density: 1.25 kg m⁻³

Melting point: -210 °C

Boiling point: -195.8 °C

Critical temperature: -147 °C

Autoignition temperature: not applicable

Vapor pressure: depends on temperature

Magnetic susceptibility: diamagnetic

Solubility in water: depends on temperature

10 Stability and reactivity

Stability and reactivity

It is rather stable under normal conditions. However, liquid nitrogen can cause cryogenic embrittlement.

11 Toxicological information

General

No known toxicological effects are found out.

12 Ecological information

General

Frost damage can harm the animals.

13 Disposal considerations

General

Waste gas can be purged out through a proper flame cutting torch through flame arrestor and flash back arrestor.

Direct discharge to confined or dangerous area is prohibited. It is better for you to contact us for the disposal.



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14 Transport information

IMDG

Class 2.2

UN number and proper shipping name

UN 1977 Nitrogen, Refrigerated Liquid

Labels 2.2

Packing Instruction P203

EmS FC, SV

ADR/RID

Class 2 Classification Code 3A

UN number and proper shipping name

UN 1977 Nitrogen, Refrigerated Liquid

Labels 2.2 Hazard number 22

Packing Instruction P203

IATA

Class 2.2

UN number and proper shipping name

UN 1977 Nitrogen, Refrigerated Liquid

Labels 2.2

Packing Instruction P202

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.

16 Other information



Harvest Wise Gases (H.K.) Company Limited

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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.