



MATERIAL SAFETY DATA SHEET

RH5

1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

Product Name Hydrogen/Nitrogen (H₂<5.7%)
Company Identification Les Gaz Industriels Ltd
Pailles Road
G.R.N.W. - Republic of Mauritius
Tel. No: (+230) 212 8306
Fax No: (+230) 212 0235

2 COMPOSITION/INFORMATION ON INGREDIENTS

Component: Concentration
Hydrogen 5%
Substance/Preparation Preparation
Components/Impurities Contains between 0% and 5.7% of
Hydrogen {F+ ;R12}
{EINECS No. 215-605-7}
Contains Nitrogen {EINECS No. 231-783-9}
EC Nr (from EINECS) Not applicable for preparations

3 HAZARDS IDENTIFICATION

Hazards identification in high concentration may cause asphyxiation.

Compressed gas

Not classified as dangerous preparation

4 FIRST AID MEASURES

Inhalation in high concentration may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.

Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

Ingestion is not considered a potential route of exposure.

5 FIRE FIGHTING MEASURES

Specific hazards Exposure to fire may cause containers to rupture/explode. Highly flammable. Temperatures in a fire may cause the activation of the pressure-relief devices, and/or the rupture of the cylinder, which would add fuel to the fire. The unignited gas can act as a simple asphyxiant, and could form highly explosive gas/air mixtures.

Hazardous Combustion products None

Suitable Extinguishing Media All known extinguishants can be used

Specific Methods If possible, stop flow of product. Move away from the container and cool with water from a protected position. In confined space use self-contained breathing apparatus

6 ACCIDENTAL RELEASE MEASURES

Personal Evacuate area.

Precautions Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

Ensure adequate air ventilation.

Environmental Prevent the product from spreading into the

Precautions environment. Contain the spilled material by bunding.

Small spills Shut off source of the R22. Ventilate the area.

Large spills Evacuate the area. Shut off the source of the spill if this can be done without risk. Restrict access to the area until completion of the clean-up procedure. Ventilate the area using forced-draught if necessary.

7 HANDLING AND STORAGE

Do not allow cylinders to slide or come into contact with sharp edges. R22 cylinders should be stacked vertically at all times, and should be firmly secured in order to prevent them from being knocked over. Use a "first in - first out" inventory system to prevent full cylinders from being stored for excessive periods of time. Keep out of reach of children.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure hazards As R22 is a simple asphyxiant, avoid any areas where spillage has taken place. Only enter once testing has proved the atmosphere to be safe, and remember that the gas is heavier than air.

Engineering Control measures. Engineering control measures are preferred to reduce exposure to oxygen depleted atmospheres. General methods include forced-draught ventilation, separate from other exhaust ventilation systems. Ensure that sufficient fresh air enters at, or near, floor level.

Personal protection Self-contained breathing apparatus should always be worn when entering area where oxygen depletion may have occurred. Safety goggles, gloves and shoes or boots should be worn when handling cylinders.

Skin No known effect

9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DATA

Molecular Weight	86,47
Chemical Symbol	CHCIF2
Boiling point @ 101,325 kPa	-40,8°C
Density (saturated vapour) at boiling point	
Vapour pressure @ 21°C	1040 kPa
Ozone depletion potential	0,55
Colour	Colourless
Taste	Not applicable
Odour	Slightly ethereal

10 STABILITY AND REACTIVITY

Conditions to avoid Never use cylinders as rollers or supports, or for any other purpose than the storing of R22. Never expose the cylinders to excessive heat, as this may cause sufficient build-up of pressure to rupture the cylinders.

Incompatible materials Since the performance of plastic materials is affected by polymer variations, compounding agents, fillers, and moulding processes, verify compatibility using actual fabricated parts under end-use conditions. The effects on specific elastomers depend on the nature of the polymer, the compounding formulation used and the curing of vulcanizing conditions. Actual samples should be tested under end-use conditions before specifying elastomers for critical components.

Hazardous Decomposition Products. R22 vapours will decompose when exposed to high temperatures from flames or electric resistance heaters. Decomposition may produce toxic and irritating compounds, such as hydrogen fluoride.

11 TOXICOLOGICAL INFORMATION

Acute Toxicity (TWA 8+12 hr)	1000 ppm
Skin & eye contact	No known effect
Chronic Toxicity	No known effect
Carcinogenicity	No known effect
Mutagenicity	No known effect
Reproductive Hazards	No known effect

(For further information see Section 3. Adverse health effects)

12 ECOLOGICAL INFORMATION

Environmental Dangerous to the ozone layer.

13 DISPOSAL CONSIDERATIONS

Disposal Methods Do not allow the product to be released into the environment. Consult the manufacturer of supplier for information regarding recovery and recycling of the product.

14 TRANSPORT INFORMATION

Un No.	1018
ERG No	126
Hazchem warning	2 C Non Flammable Gas

SEA TRANSPORTATION

IMDG	1018
Class	2.2
Label	Non-flammable gas

AIR TRANSPORTATION

ICAO/IATA code	1018
Class	2.2
Packaging instructions	
- Cargo	200
- Passenger	200
Maximum quantity allowed	
- Cargo	150 kg
- Passenger	75 kg

15 REGULATORY INFORMATION

EEC Hazard class	Non flammable gas
Risk phrases	R20 Harmful by inhalation R34 Causes burns. R44 Risk of explosion if heated under confinement. R59 Dangerous for the ozone layer
Safety phrases	SS2 Keep out of reach of children S9 Keep container in a well ventilated place S15 Keep away from heat. S37 Wear suitable gloves S38 In case of insufficient ventilation, wear suitable respiratory equipment. S51 Use only in well-ventilated areas
National legislation	None
Refer to SABS 0265 for explanation of the above.	

16 OTHER INFORMATION

All the constituents of this preparation are registered in the EINECS inventory. All the components of this preparation are registered in the TSCA inventory.

17 EXCLUSION OF LIABILITY

Information contained in this publication is accurate at the date of publication. The company does not accept liability arising from the use of this information, or the use, application, adaptation or process of any products described herein.

A member of The AFROX Group
For product and safety enquiries please phone
EMERGENCY N°:
+230 800 1133 (business hours)
+230 212 8306 (business hours)
+230 5421 5944 (24 hours)
+230 5497 9790 (24 hours)
+230 5729 3845 (24 hours)
+230 5421 1511 (24 hours)
+230 5497 5432 (24 hours)
+230 5423 6870 (24 hours)
+230 5729 3846 (24 hours)