

# SAFETY DATA SHEET

## Refrigerant R404A

Version 2

Revision Date: 23.07.2013



## SAFETY DATA SHEET REFRIGERANT R404A

This SDS is compiled according to the standards and regulatory requirements of Great Britain. It may not meet the regulatory requirements in other countries.

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

#### 1.1. Product Identifier

**Product name:** REFRIGERANT R404A

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

**Use:** Refrigerant.  
**Advised Against:** No identified use advised against.

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

**Company name:** National Refrigerants Ltd.  
4 Watling Close  
Sketchley Meadows Business Park  
Hinckley  
LE10 3EZ

**Telephone Number:** +44(0)1455 630790  
**Fax Number:** +44(0)1455 630791  
**Email:** [sds@nationalref.com](mailto:sds@nationalref.com)

#### 1.4. Emergency telephone number

**Emergency Telephone:** +44(0)1865 407333  
**Opening hours:** 24 Hour.  
**Other comments:** English only.

### SECTION 2: HAZARDS IDENTIFICATION

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

**Classification under Directive 67/548/EEC and 1999/45/EC:** Not a hazardous mixture according to EC directives 67/548/EEC or 1999/45/EC.

#### 2.2. Label elements

**Directives 67/458/EEC or 1999/45/EC:** The product does not need to be labelled in accordance with Directive 1999/45/EC or Annex Vi to 67/548/EEC.  
**Special labelling of certain substances and mixtures:** Contains 1,1,1-Trifluoroethane, Pentafluoroethane, 1,1,1,2-Tetrafluoroethane. Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

#### 2.3. Other hazards

Rapid evaporation of the liquid may cause frostbite.  
Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.  
Misuse or intentional inhalation abuse may cause death without warning symptoms, due to cardiac effects.  
May cause cardiac arrhythmia.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1. Substances

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### Hazardous Ingredients:

#### 3.2 Mixtures

1,1,1-TRIFLUOROETHANE (HFC143a)(REGISTRATION No. 01-2119492869-13)

EINECS	CAS	67/548/EEC Classification	CLP Classification	Percent
206-996-5	420-46-2	F+, R12	H220: Flammable gas H280: Gas under pressure	52%

PENTAFLUOROETHANE (HFC125)(REGISTRATION No. 01-2119485636-25)

EINECS	CAS	67/548/EEC Classification	CLP Classification	Percent
206-557-8	354-33-6	-	H280 Gas under pressure	44%

1,1,1,2-TETRAFLUOROETHANE (HFC134a)(REGISTRATION No. 01-21194559374-33)

EINECS	CAS	67/548/EEC Classification	CLP Classification	Percent
212-377-0	811-97-2	-	H280 Gas under pressure	

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16.

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

- Skin contact:** Take off all contaminated clothing immediately. Flush area with lukewarm water. Do not use hot water. If frostbite has occurred get medical attention.
- Eye contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.
- Ingestion:** Ingestion is not considered a potential route of exposure.
- Inhalation:** Remove from exposure, lie down. Move to fresh air. Keep patient warm and rest. Artificial respiration and/or oxygen may be necessary. Get medical attention.
- General advice:** Never give anything by mouth to an unconscious person. When symptoms persist or in all cause of doubt seek medical advice.

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

- Skin contact:** Skin contact may cause the following symptoms: Redness, frostbite.
- Eye contact:** Eye contact will cause the following symptoms: redness, frostbite, cornea damage.
- Ingestion:** Ingestion is not considered a route of exposure.
- Inhalation:** Misuse or intentional inhalation abuse may cause death without warning symptoms, due to cardiac effects. Other symptoms potentially related to misuse or inhalation abuse are: Anaesthetic effects, Light-headedness, dizziness, confusion, incoordination, drowsiness, unconsciousness, irregular heartbeat, with a strange sensation in the chest, heart thumping, apprehension, feeling of fainting or weakness, Narcosis.
- Delayed/immediate effects:** Skin contact may not give immediate symptoms of frostbite.

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

- Immediate/special treatment:** Do not give adrenaline or similar drugs.

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media

- Extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Use water spray to cool cylinders/tanks in a fire.

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

**Special hazards arising from the mixture:** Pressure build-up. Fire or intense heat may cause violent rupture of cylinders. Hazardous thermal decomposition products may form. They are: Carbon oxides, Hydrogen Fluoride, Fluorinated compounds. Exposure to decomposition products may be hazardous to health.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** In event of a fire wear self-contained breathing apparatus. Use personal protective equipment. Wear neoprene gloves during cleaning up work after a fire.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**Personal precautions:** Evacuate personnel to safe areas. Ventilate area, especially low or enclosed places where heavy vapours might collect. Refer to protective measures listed in Sections 7 and 8.

### 6.2. Environmental precautions

**Environmental precautions:** Do not release into the environment. Treat according to local and national regulations.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Product evaporates.

### 6.4. Reference to other sections

**Reference to other sections:** For Handling and Storage see Section 7.  
For Exposure Controls and Personal Protection see Section 8.  
For Disposal Methods see Section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid breathing vapours or mist. Avoid contact with the skin, eyes and clothing. Provide sufficient air exchange and/or exhaust in work rooms. For personal protection see Section 8. Vapours are heavier than air and may spread along the floor.

**Cylinder Handling:** Do not drag, slide or roll cylinders.  
Never attempt to lift cylinder by its valve or cap.  
Use a check valve or trap in the discharge line to prevent back flow into the cylinder.  
See General Safety & Handling Data.

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

**Storage conditions:** Store in a cool, dry and well-ventilated area at temperatures not exceeding 52°C. Keep out of direct sunlight. Keep cylinders tightly closed. Protect from contamination.  
See General Safety & Handling Data.

**Suitable packaging:** Store in original cylinders only.

### 7.3. Specific end use(s)

**Specific end use(s)** No data available.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

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### 8.1. Control parameters

#### Hazardous ingredients:

1,1,1,2-TETRAFLUOROETHANE (HFC134a)(CAS No. 811-97-2)

Workplace exposure limits

Type/form of Exposure	Control Parameter	Basis
TWA	4 240 mg/m <sup>3</sup> 1 000 ppm	EH40 WEL

#### Derived No Effect Level (DNEL):

##### 1,1,1-Trifluoroethane:

Type of application (use): Worker  
Exposure routes: Inhalation  
Health Effects: Chronic effects, Systemic toxicity  
Value: 38 800 mg/m<sup>3</sup>

Type of application (Use): Consumers  
Exposure routes: inhalation  
Health Effect: Chronic effects, Systemic toxicity  
Value: 10 700 mg/m<sup>3</sup>

##### Pentafluoroethane:

Type of application (use): Worker  
Exposure routes: Inhalation  
Health Effects: Chronic effects, Systemic toxicity  
Value: 16 444 mg/m<sup>3</sup>

Type of application (Use): Consumers  
Exposure routes: inhalation  
Health Effect: Chronic effects, Systemic toxicity  
Value: 1 753 mg/m<sup>3</sup>

##### 1,1,1,2-Tetrafluoroethane:

Type of application (Use): Workers  
Exposure route(s): Inhalation  
Health Effects: Chronic effects, Systemic toxicity  
Value: 13 939 mg/m<sup>3</sup>

Type of application (Use): Consumers  
Exposure routes: inhalation  
Health Effect: Chronic effects, Systemic toxicity  
Value: 2 476 mg/m<sup>3</sup>

#### Predicted No Effect Concentrations (PNEC):

##### 1,1,1-Trifluoroethane:

Value: 350 mg/l  
Compartment: Fresh water

##### Pentafluoroethane:

Value: 0.1 mg/l  
Compartment: Fresh water

Value: 1 mg/l  
Compartment: Water  
Remarks: Intermittent use/release

Value: 0.6 mg/kg  
Compartment: Fresh water sediment

##### 1,1,1,2-tetrafluoroethane:

Value: 0.1 mg/l  
Compartment: Fresh Water

Value: 0.01 mg/l

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Compartment: Marine Water

Value: 1 mg/l  
Compartment: Water  
Remarks: Intermittent use/release.

Value: 0.75 mg/kg dry weight (d.w.)  
Compartment: Fresh water sediment.

Value: 73 mg/l  
Compartment: Water  
Remarks: Sewage treatment plants.

### Exposure Controls

**Engineering measures:** Ensure adequate ventilation, especially in confined areas. Local exhaust should be used when large amounts are released.

**Respiratory protection:** For rescue and maintenance work in storage tanks use self-contained breathing apparatus. Vapours are heavier than air and can cause suffocation by reducing the oxygen available for breathing. Respiratory protection to comply with EN 137.

**Hand protection:** Material: leather gloves  
The suitability for specific workplace should be discussed with the producers of the protective gloves.

**Eye protection:** Wear safety glasses or overall chemical splash goggles. Eye protection should comply with EN 166 or ANSI Z87.1.  
Wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.

**Skin protection:** Wear suitable protective equipment. Wear as appropriate: impervious clothing.

**Protective Measures:** Self-contained breathing apparatus (SCBA) is required if a large release occurs. The type of protective equipment must be selected according to the concentration and amount of the substance at the specific workplace.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

**State:** Liquefied gas  
**Colour:** Colourless  
**Odour:** Slight, ether-like.  
**Boiling Point/range:** -45.5°C  
**Flash Point:** Does not flash  
**Thermal Decomposition:** 728°C  
**Vapour Pressure:** 12.546 Bar (12 346 hPa at 25°C)  
23 100 Bar (23 100 hPa at 50°C)  
**Density:** 1.05 g.cm<sup>3</sup> at 25°C (as liquid)

### 9.2 Other Information

## SECTION 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

**Reactivity:** Decomposes on heating.

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### 10.2. Chemical stability

**Chemical stability:** The product is chemically stable.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Stable at normal temperatures and storage conditions

### 10.4. Conditions to avoid

**Conditions to avoid:** Avoid open flames and high temperatures. The product is not flammable in air under ambient conditions of temperature and pressure. When pressurised with air or oxygen, the mixture may become flammable. Certain mixtures of HFC's with chlorine may become flammable or reactive under certain conditions. Pressurized container: Do not pierce or burn even after use. Keep at temperature not exceeding 52°C

### 10.5. Incompatible material

**Materials to avoid:** Alkali metals, Alkaline earth metals, Powdered metals, Powdered metal salts.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Hazardous thermal decomposition products may include: Carbon oxides, Hydrogen fluoride, Carbonyl fluorides, and Fluorocarbons.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

**Acute toxicity:**

Oral toxicity

- 1,1,1-Trifluoroethane  
Not applicable
- Pentafluoroethane  
Not applicable
- 1,1,1,2-Tetrafluoroethane  
Not applicable

Inhalation toxicity

- 1,1,1-Trifluoroethane  
LC<sub>50</sub>/rat: 591 000 ppm  
  
/dog  
Cardiac sensitization
- Pentafluoroethane  
LC<sub>50</sub>/rat: > 800 000 ppm  
  
/dog  
Cardiac Sensitization
- 1,1,1,2-Tetrafluoroethane  
LC<sub>50</sub>/rat: 567 000 ppm  
  
/dog  
Cardiac sensitization

Dermal toxicity

- 1,1,1-Trifluoroethane  
Not applicable.

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- Pentafluoroethane  
Not applicable
- 1,1,1,2-Tetrafluoroethane  
Not applicable

### Irritation:

#### Skin irritation

- 1,1,1-Trifluoroethane  
Not tested on animals  
Classification: Not classed as an irritant  
Result: No skin irritation  
Not expected to cause skin irritation based on expert review of the properties of the substance.
- Pentafluoroethane  
Not tested on animals  
Classification: Not classed as an irritant  
Result: No skin irritation  
Not expected to cause skin irritation based on expert review of the properties of the substance.
- 1,1,1,2-Tetrafluoroethane  
Rabbit  
Classification: Not classed as an irritant  
Result: Slight irritation  
Not expected to cause skin irritation based on expert review of the properties of the substance.  
  
Human  
Classification: Not classified as an irritant  
Result: No skin irritation.

#### Eye irritation

- 1,1,1-Trifluoroethane  
Not tested on animals  
Classification: Not classed as an irritant  
Result: No eye irritation  
Not expected to cause eye irritation based on expert review of the properties of the substance.
  - Pentafluoroethane  
Not tested on animals  
Classification: Not classed as an irritant  
Result: No eye irritation  
Not expected to cause eye irritation based on expert review of the properties of the substance.
  - 1,1,1,2 Tetrafluoroethane  
Rabbit  
Classification: Not classed as an irritant  
Result: slight eye irritation  
Not expected to cause eye irritation based on expert review of the properties of the substance.  
  
Human  
Classification: Not classified as an irritant.  
Result: No eye irritation.
-

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### Sensitisation:

- 1,1,1-Trifluoroethane  
Not tested on animals  
Classification: Not a skin sensitizer  
Not expected to cause sensitization based on expert review of the properties of the substance.

There are no reports of human respiratory sensitization.

- Pentafluoroethane  
Not tested on animals  
Classification: Not a skin sensitizer  
Not expected to cause sensitization based on expert review of the properties of the substance.

There are no reports of human respiratory sensitization

- 1,1,1,2-Tetrafluoroethane  
Guinea pig  
Classification: Not a skin sensitizer  
Result: Did not cause sensitization on laboratory animals  
Not expected to cause sensitization based on expert review of the properties of the substance.

### Repeated dose toxicity:

- 1,1,1-Trifluoroethane  
Inhalation rat  
No toxicologically significant effects were found
- Pentafluoroethane  
Inhalation rat  
No toxicologically significant effects were found
- 1,1,1,2-Tetrafluoroethane  
Inhalation rat  
No toxicologically significant effects were found

### Carcinogenic assessment:

- 1,1,1-Trifluoroethane  
Animal testing did not show any carcinogenic effects.  
  
not classified as a human carcinogen.
- Pentafluoroethane  
Not classified as a human carcinogen.
- 1,1,1,2-Tetrafluoroethane  
Not classified as a human carcinogen.

### Mutagenic assessment:

- 1,1,1-Trifluoroethane  
Animal testing did not show any mutagenic effects.  
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Pentafluoroethane  
Animal testing did not show any mutagenic effects.  
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- 1,1,1,2-Tetrafluoroethane  
Animal testing did not show any mutagenic effects.  
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

### Toxicity to reproduction assessment:

- 1,1,1-Trifluoroethane  
No toxicity to reproduction.



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- Pentafluoroethane  
No toxicity to reproduction.
- 1,1,1,2-Tetrafluoroethane  
No toxicity to reproduction.

**Human experience:** Excessive exposure may affect human health as follows:

Inhalation  
Sever shortness of breath, narcosis, irregular cardiac activity.

**Futher information:** Rapid evaporation of the liquid may cause frostbite. May cause cardiac arthymia.

### SECTION 12. ECOLOGICAL INFORMATION

#### 12.1. Toxicity

##### Toxicity to fish:

- 1,1,1-Trifluoroethane  
LC<sub>50</sub>/96 h / Oncorhynchus mykiss (rainbow trout): > 100 mg/l
- Pentafluoroethane  
LC<sub>50</sub>/ 96 h /Oncorhynchus mykiss (rainbow trout): > 81.8 mg/l  
Information given based on data obtained from similar substances.  
  
LC<sub>50</sub> / 96 h / Danio rerio (zebra fish): > 200 mg/l  
Information given based on data obtained from similar substances.  
  
LC<sub>50</sub> / 96 h /Oncorhynchus mykiss (rainbow trout): 450 mg/l  
Information given based on data obtained from similar substances.
- 1,1,1,2-Tetrafluoroethane  
LC<sub>50</sub> / 96 h / Oncorhynchus mykiss (rainbow trout): 450 mg/l

##### Toxicity to Aquatic plants:

- 1,1,1-Trifluoroethane  
Not applicable
- Pentafluoroethane  
EC<sub>50</sub> / 75 h /Pseudokirchneriella subcapitata (green algae): >118 mg/l  
Information given based on data obtained from similar substances.  
  
EC<sub>50</sub> / 72 h / Pseudokirchneriella subcapitata (green algae): > 114 mg/l  
Information given based on data obtained from similar substances.  
  
EC<sub>50</sub> / 96 h / Algae: 142 mg/l  
Information given based on data obtained from similar substances.
- 1,1,1,2-Tetrafluoroethane  
EC<sub>50</sub> / 72 h / Algae: > 118 mg/l  
Information given based on data obtained from similar substances.

##### Toxicity to aquatic invertebrates:

- 1,1,1-Trichloroethane  
EC<sub>50</sub> / 48 h /Daphnia: 300 mg/l
- Pentafluoroethane  
EC<sub>50</sub> / 48 h / Daphnia magna (Water flea): > 200 mg/l  
Information given based on data obtained from similar substances.  
  
EC<sub>50</sub> / 48 h / Daphnia magna (Water flea): > 97.9 mg/l  
Information given based on data obtained from similar substances.

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- 1,1,1,2-Tetrafluoroethane  
EC<sub>50</sub> / 48 h / Daphnia magna (Water flea): 980 mg/l

### Ecotoxic values:

**Global Warming Potential (GWP):** 3922 (CO<sub>2</sub> = 1)

**Ozone Depletion Potential (ODP):** 0 (R11 = 1)

### 12.2. Persistence and degradability

**Persistence and degradability:** No data available.

### 12.3. Bio accumulative potential

**Bio-accumulative potential:** No data available

### 12.4. Mobility in soil

**Mobility:** No data available.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** No data available.

### 12.6. Other adverse effects

**Other adverse effects:**

## SECTION 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Disposal operations:** Do not allow product to be released into the environment.

**Recovery Operations:** Consult the manufacturer or supplier for information regarding recovery and recycling of the product. If recovery is not possible, incinerate at a licensed installation.

**Disposal of packaging:** De-gas and return cylinders to suppliers.

**N.B.** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## SECTION 14. TRANSPORT INFORMATION

### 14.1. ADR

**UN Number:** 3337  
**Proper Shipping Name:** REFRIGERANT GAS R 404A  
**Class:** 2A  
**Packing Group:** n/a  
**Tunnel Code:** (C/E)  
**Transport Group:** 2.2

### 14.2. IMDG

**UN Number:** 3337  
**Proper Shipping Name:** REFRIGERANT GAS R 404A  
**Class:** 2.2  
**Packing Group:** n/a  
**EmS codes:** F-C, S-V

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Marine Pollutant: No

### SECTION 15. REGULATORY INFORMATION

#### 15.1. Safety, health and environment regulations/legislation specific for the substance or mixture

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

#### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out by the supplier of this mixture.

### 16. OTHER INFORMATION

**Other information:** This safety sheet is prepared in accordance with Commission Regulation (EU) No. 453/2010.

\* Indicates text in SDS which has changed since the last revision.

**R Phrases:**

R12: Extremely Flammable.

**H Statements:**

H220: Extremely Flammable gas,

H280: Contains gas under pressure; may explode if heated.

**Legal disclaimer:** National Refrigerants Ltd. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other methods of use of the product and of the information referred to herein are beyond the control of National Refrigerants Ltd. National Refrigerants Ltd. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

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### GENERAL SAFETY & HANDLING DATA

#### 1. GENERAL

Only trained persons should handle compressed gases. Observe all regulations and local requirements regarding the storage of Cylinders. Do not remove or deface labels provided by the supplier for the identification of the Cylinder contents. Ascertain the identity of the gas before using it. Know and understand the properties and hazards associated with each gas before using it. When doubt exists as to the correct handling procedure for a particular gas contact the supplier.

#### HANDLING AND USE

Wear stout gloves. Never lift a Cylinder by the cap or guard unless the supplier states it is designed for that purpose. Use trolley or other suitable device or technique for transporting heavy Cylinders, even for a short distance. Where necessary wear suitable eye and face protection. The choice between safety glasses, chemical goggles, or full face shield will depend on the pressure and nature of the gas being used.

Where necessary for toxic gases see that self-contained positive pressure breathing apparatus or full face airline respirator is available in the vicinity of the working area. Employ suitable pressure regulating device on all Cylinders when gas is being emitted to systems with lower pressure rating than that of the Cylinder. Ascertain that all electrical systems in the area are suitable for service with each gas.

Never use direct flame or electrical heating devices to raise the pressure of a Cylinder, Cylinders should not be subjected to temperatures above 45°C. Never re-compress a gas mixture without consulting the supplier. Never attempt to transfer gases from one Cylinder to another. Do not use Cylinders as rollers or supports, or for any other purpose other than to contain the gas as supplied. Never permit oil, grease or other readily combustible substances to come into contact with valves of Cylinders containing oxygen or other oxidants. Keep Cylinder valves clean and free from contaminants particularly oil and water.

Do not subject Cylinders to mechanical shocks which may cause damage to their valves or safety devices.

Never attempt to repair or modify Cylinder valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Close the Cylinder valve whenever gas is not required even if the Cylinder is still connected to the equipment.

#### 2. STORAGE

Cylinders should be stored in a well-ventilated area. Some gases will require a purpose built area. Store Cylinders in a location free from fire risk and away from sources of heat and ignition. Designate as a no smoking area.

Gas Cylinders should be segregated in the storage according to the various categories.

The storage area should be kept clear and access should be restricted to authorized persons only, the area should be clearly marked as a storage area and appropriate hazard warning signs displayed (Flammable, Toxic etc.).

The amount of flammable or toxic gases should be kept to a minimum.

Flammable gases should be stored away from other combustible materials.

Cylinders held in storage should be periodically checked for general condition and leakage.

Cylinders in storage should be properly secured to prevent toppling or rolling.

Vertical storage is recommended where the Cylinder is designed for this.

Cylinder valves should be tightly closed and, where appropriate, valves should be capped or plugged.

Protect Cylinders stored in the open against rusting and extremes of weather.

Cylinders should not be stored in conditions likely to encourage corrosion.

Store full and empty Cylinders separately and arrange full Cylinders so that the oldest stock is used first.

FOR FURTHER INFORMATION CONTACT YOU'RE NEAREST DISTRIBUTION CENTRE