1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name: FX 100 (R427A)
Company identification: see heading and/or footer
Emergency phone numbers: see heading and/or footer

2 COMPOSITION/INFORMATION ON INGREDIENTS

Components/Impurities
Contains the following components: 50% w/w 1,1,1,2-Tetrafluoroethane (R134a) {EINECS No. 212-377-0}/25% w/w Pentafluoroethane (R125) {EINECS No. 206-557-8}/15% w/w Difluoromethane (R32) {F+;R12} {EINECS No. 200-839-4}/10% w/w Trifluoroethane (R143a) {F+;R12} {EINECS No. 206-996-5}

EC Nr (from EINECS): Not applicable for preparations

3 HAZARDS IDENTIFICATION

Hazards identification: In high concentrations may cause asphyxiation.
Liquefied gas
Not classified as dangerous preparation.

4 FIRST AID MEASURES

Inhalation: In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.
In high concentrations 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.

Skin/eye contact: In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Immediately flush eyes thoroughly with water for at least 15 minutes. Obtain medical assistance

Ingestion: Ingestion is not considered a potential route of exposure.

5 FIRE FIGHTING MEASURES

Specific hazards: Exposure to fire may cause containers to rupture/explode.
Non flammable

Hazardous combustion products: If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition:
6 ACCIDENTAL RELEASE MEASURES

Personal precautions
Evacuate area.
Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.
Ensure adequate air ventilation.

Environmental precautions
Try to stop release.
Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

Clean up methods
Ventilate area.

7 HANDLING AND STORAGE

Handling and storage
Suck back of water into the container must be prevented.
Do not allow backfeed into the container.
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
Refer to supplier's container handling instructions.
Keep container below 50°C in a well ventilated place.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit value for country
UK: 1,1,1,2-Tetrafluoroethane (R134a) - LTEL: 1000ppm (EH40/2005)

Personal protection
Ensure adequate ventilation.
Do not smoke while handling product.
Protect eyes, face and skin from liquid splashes.

9 PHYSICAL AND CHEMICAL PROPERTIES

Molecular weight
90.4
Boiling point: -42.7 °C
Critical temperature: 86.8 °C
Relative density, gas: 3.2 (air=1)
Relative density, liquid: 1.2 (water=1)
Vapour Pressure 20°C: 10 bar(a).
Solubility mg/l water: Not known, but considered to have low solubility.
Appearance/Colour: Colourless gas
Odour: Ethereal
Flammability range: Non flammable.
Other data: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10 STABILITY AND REACTIVITY
Stability and reactivity: Stable under normal conditions.
Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.

11 TOXICOLOGICAL INFORMATION
General: May produce irregular heart beat and nervous symptoms.

12 ECOLOGICAL INFORMATION
General: When discharged in large quantities may contribute to the greenhouse effect.
Global warming factor: 1830 (CO2=1)

13 DISPOSAL CONSIDERATIONS
General: Avoid discharge to atmosphere.
Do not discharge into any place where its accumulation could be dangerous.
Refer to supplier's waste gas recovery programme.
Contact supplier if guidance is required.

14 TRANSPORT INFORMATION
Proper shipping name: LIQUEFIED GAS, N.O.S. (1,1,1,2-Tetrafluoroethane [R134a], Pentfluoroethane [R125])
UN Nr: 3163
Class: 2
ADR/RID Classification code: 2A
### 15 REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number in Annex 1 of Dir 67/548</td>
<td>Not applicable for preparations</td>
</tr>
<tr>
<td>EC Classification</td>
<td>Not classified as dangerous preparation.</td>
</tr>
<tr>
<td>Labelling of cylinders</td>
<td></td>
</tr>
<tr>
<td>- Symbols</td>
<td>Label 2.2: non flammable non toxic gas</td>
</tr>
</tbody>
</table>

### 16 OTHER INFORMATION

Ensure all national/local regulations are observed.

Asphyxiant in high concentrations.

Keep container in well ventilated place.

Do not breathe the gas.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

Contact with liquid may cause cold burns/frost bite.

Users of breathing apparatus must be trained.

Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or
End of document.
Number of pages :5