Safety Data Sheet

IG-100

Revision Date: May 2013

SECTION 1: Identification

Product name: IG-100
Use of Substance/Mixture: Fire extinguishing agent
Synonym: Pro Inert
Importer / Supplier: Fire Protection Technologies
Address: Unit 1/251 Ferntree Gully Road
          Mt Waverley, Victoria, 3149 Australia.
Telephone Number: 1300 742 296
Emergency Telephone No.: 24 hours 1300 742 296
Emergency Services: Dial 000
SDS Preparer: Fire Protection Technologies

SECTION 2: Hazard Identification

Classification of the substance or mixture:
Gases under pressure; H280 - Contains gas under pressure; may explode if heated.

Label element:

Warning:
H280 - Contains gas under pressure; may explode if heated.
P410 +P403 - Protect from sunlight. Store in a well-ventilated place.

Other Hazards
The gas mixture is heavier than air and can cause suffocation by reducing oxygen available for breathing.
3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixture:
100% Nitrogen

4. FIRST-AID MEASURES

General:
If unconscious, place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.

Inhalation:
May cause asphyxiation at high concentrations. Symptoms may include loss of mobility or consciousness. Victim may not be aware of asphyxiation. Remove victim to an uncontaminated area, wearing self-contained breathing apparatus. Keep person warm and at rest. Seek medical assistance. Apply artificial respiration if breathing has stopped.

Skin/eye Contact:
Compressed gas directed at the skin can enter the body through small wounds or even penetrate the skin, causing serious or fatal injuries. Seek medical advice immediately.

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

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:
All known extinguishants can be used.

Specific methods:
If possible, stop flow of product. Move container away or cool with water from a protected position.

Specific hazards during firefighting:
Pressure build-up. Fire of intense heat may cause violent rupture of containers. No hazardous combustion products.

Advice for firefighters:
In confined spaces, use self-contained breathing apparatus. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURE

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

Environmental precautions:
Provided it is safe to do so, try to stop release. Prevent from entering sewers, basements and work pits or any place where accumulation can be dangerous.

Methods for containment cleaning up
Ventilate area.

Disposal
Refer to section 13 for disposal instructions.
7. **HANDLING AND STORAGE**

**Handling:**

Substance is heavier than air and may spread along floors.

Compressed gas cylinders are heavy and contain considerable stored energy. Use suitable equipment and handle with appropriate caution. Contact supplier if in doubt.

Backflow of any contaminating substance into container must be prevented.

Do not drag, slide or roll containers. Never attempt to lift cylinder by its cap. Use a check valve in the discharge line to prevent hazardous backflow into the container.

Keep containers in a dry, cool and well-ventilated place at a temperature of between -20°C and 50°C.

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8. **EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure limits:**

No exposure limit specified, atmosphere must have a minimum of 18% free oxygen.

**Exposure controls:**

Ensure adequate ventilation, especially in confined areas.

Eye protection - wear safety glasses complying with EN 166 or ANSI Z87.1

Hand protection - leather gloves that are resistant to low temperature complying with EN 374 or OSHA 29 CFR 1910.139. The choice of the gloves also depends on other quality features other than material and is different from one manufacturer to another. Consideration must be given to specific local conditions such as the danger of cuts, abrasion and contact time with the substance.

Skin and body protection – wear suitable protective equipment.

Protective measures – self-contained breathing apparatus is required if a large release is experienced.

Respiratory protection – for rescue, use self-contained breathing apparatus. The mixture is heavier than air and can cause suffocation by reducing the oxygen concentration available for breathing. Apparatus must comply with EN 137.

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9. **PHYSICAL AND CHEMICAL PROPERTIES**

**Physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Colorless gas</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>28.2</td>
</tr>
<tr>
<td>Melting point</td>
<td>-210.0°C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>-195.8°C</td>
</tr>
<tr>
<td>Relative density (gas)</td>
<td>Heavier than air</td>
</tr>
<tr>
<td>Relative density (liquid)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure at 20°C</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Negligible</td>
</tr>
<tr>
<td>Auto ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability range</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity and chemical stability:
Stable under normal conditions

Possibility of hazardous reactions:
Stable

Hazardous decomposition products:
None

11. TOXICOLOGICAL INFORMATION

General:
No toxicological effects from this product.
LC50/ih
No acute toxicity

12. ECOLOGICAL INFORMATION

No ecological damage is caused by this product. Nitrogen and argon are natural components of air, with nitrogen constituting approximately 78%, argon approximately 0.9% and carbon dioxide approximately 0.04% of the Earth’s atmosphere.

13. DISPOSAL CONSIDERATION

Discharge to atmosphere in a well-ventilated area. Consider noise and pressure hazards. Do not discharge into any place where its accumulation could be dangerous.

Return cylinder to supplier; otherwise, dispose of container in accordance with local, regional, national and/or international regulations.

Contact your Fike Corporation (of Fike approved supplier) if guidance is required.

14. TRANSPORT INFORMATION

U.N. No. 1066
Class / Division 2
Proper Shipping Name Nitrogen, compressed
ADR/RID Item No. 1 2.1a

Other transport information:
Avoid transport on vehicles where the load space is not separated from the driver’s compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do at an emergency.

Before transporting product, ensure;
- Cylinder valve is closed and not leaking
- Valve outlet cap or plug (where provided) is correctly fitted.
- Adequate ventilation
- Compliance with applicable regulations.

15. REGULATORY INFORMATION
16. OTHER INFORMATION

Refer to Section 3.

H280 Contains gas under pressure, may explode if heated.

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

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

The information provided in this document is correct at the date of publication. The information is designed only as a guide for safe handling, use, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification.

Whilst great care has been taken in the preparation of this information, no liability for injury, damage or non-compliance with any legislation or directive arising from its use can be accepted.

This sheet does not constitute or substitute for the user’s own assessment of workplace risk as required by other health and safety legislation.

END OF MSDS