HIGHLY FLAMMABLE GASES
(Compressed, Liquefied or Cryogenic)

RED - All highly flammable gases are RED.

POTENTIAL HAZARDS

FIRE OR EXPLOSION
- Will be easily ignited by heat, sparks or flames.
- Vapors will form explosive mixture with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas.
- Containers may explode when heated.
- Some may decompose or polymerize if heated.

HEALTH
- Fire will produce irritating, corrosive and/or poisonous gases.
- Contact with gas or liquefied gas may cause severe injury and/or frostbite.
- May cause asphyxiation without warning.

SAFETY PRECAUTIONS
- Contact Company/Facility safety official.
- Keep unauthorized personnel away.
- Isolate spill.
- Stay upwind.
- Avoid low lying areas.
- Ventilate closed space.
- Wear SCBA and chemical protective clothing.
- Always wear thermal protective clothing when handling cryogenic materials.

EMERGENCY RESPONSE

FIRE
- DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

Small Fire
- Use dry chemical, carbon dioxide or water spray.

Large Fire
- Use water spray or fog.
- Do not use straight streams. Do not direct water at the source of leak.
- If without risk, move undamaged containers from fire area.
- If impossible, withdraw from the area and let burn.
- Withdraw immediately in case of rising sound from the containers.

SPILL OR LEAK
- WHEN IN CONTACT WITH CRYOGENIC LIQUIDS, MOST MATERIALS BECOME BRITTLE AND ARE LIKELY TO BREAK WITHOUT WARNING.
- Eliminate all ignition sources.
- All equipment for handling should be grounded.
- Prevent spreading of vapors through sewers and ventilation systems.
- Ventilate the area.
- Do not touch or walk through spilled material.
- Stop leak if without risk.
- Use water spray to reduce vapors.
- Do not direct water at source of leak or venting safety devices as icing may occur.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID
- Remove victim to fresh air.
- Apply artificial respiration if victim is not breathing.
- Do not use mouth-to-mouth method if the victim ingested or inhaled the substance; use the Holger Nielsen method (back pressure arm lift) or proper respiratory medical device.
- Administer oxygen if breathing is difficult.
- Immediately remove contaminated clothing and shoes.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.