POTENTIAL HAZARDS

HEALTH
• TOXIC; may be fatal if inhaled or absorbed through skin.
• Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
• Fire will produce irritating, corrosive and/or toxic gases.
• Runoff from fire control may cause pollution.

FIRE OR EXPLOSION
• Flammable; may be ignited by heat, sparks or flames.
• May form explosive mixtures with air.
• Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
• Vapors from liquefied gas are initially heavier than air and spread along ground.
• Vapors may travel to source of ignition and flash back.
• Some of these materials may react violently with water.
• Cylinders exposed to fire may vent and release toxic and flammable gas through pressure relief devices.
• Containers may explode when heated.
• Ruptured cylinders may rocket.
• Runoff may create fire or explosion hazard.

PUBLIC SAFETY
• CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
• As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
• Keep unauthorized personnel away. • Stay upwind.
• Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
• Keep out of low areas. • Ventilate closed spaces before entering.

PROTECTIVE CLOTHING
• Wear positive pressure self-contained breathing apparatus (SCBA).
• Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
• Structural firefighters’ protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION
• See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.
• If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.
EMERGENCY RESPONSE

FIRE
- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**
  - Small Fire
  - Dry chemical, CO₂, water spray or alcohol-resistant foam.
  - Large Fire
  - Water spray, fog or alcohol-resistant foam.
  - **FOR CHLOROSILANES, DO NOT USE WATER; use AFFF alcohol-resistant medium expansion foam.**
  - Move containers from fire area if you can do it without risk.
  - Damaged cylinders should be handled only by specialists.
  - **Fire involving Tanks**
  - Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
  - Cool containers with flooding quantities of water until well after fire is out.
  - Do not direct water at source of leak or safety devices; icing may occur.
  - Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
  - **ALWAYS** stay away from tanks engulfed in fire.

SPILL OR LEAK
- **ELIMINATE** all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **FOR CHLOROSILANES**, use AFFF alcohol-resistant medium expansion foam to reduce vapors.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.

FIRST AID
- Move victim to fresh air. • **Call 911 or emergency medical service.**
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water.
- Do not remove clothing if adhering to skin.
- **Keep victim warm and quiet.** • Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.