SUBSTANCES - WATER-REACTIVE (EMITTING FLAMMABLE AND TOXIC GASES)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Produce flammable and toxic gases on contact with water.
- · May ignite on contact with water or moist air.
- · Some react vigorously or explosively on contact with water.
- · May be ignited by heat, sparks or flames.
- · May re-ignite after fire is extinguished.
- Some are transported in highly flammable liquids.
- · Containers may explode when heated.
- · Runoff may create fire or explosion hazard.

HEALTH

- Highly toxic: contact with water produces toxic gas, may be fatal if inhaled.
- Inhalation or contact with vapors, substance or decomposition products may cause severe injury or death.
- · May produce corrosive solutions on contact with water.
- Fire will produce irritating, corrosive and/or toxic gases.
- · Runoff from fire control may cause pollution.

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 in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- · Stay upwind.
- Keep out of low areas.
- · Ventilate the area before entry.

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

Large Spill

 See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

• If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- DO NOT USE WATER OR FOAM. (FOAMMAY BE USED FOR CHLOROSILANES, SEE BELOW)
 Small Fires
- Dry chemical, soda ash, lime or sand.

Large Fires

- DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.
- FOR CHLOROSILANES, DO NOT USE WATER; use AFFF alcohol-resistant medium expansion foam; DO NOT USE dry chemicals, soda ash or lime on chlorosilane fires (large or small) as they may release large quantities of hydrogen gas that may explode.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- 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 get water inside containers.
- 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

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- · Stop leak if you can do it without risk.
- DO NOT GET WATER on spilled substance or inside containers.
- 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.

Small Spills • Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

Dike for later disposal; do not apply water unless directed to do so.

Powder Spills • Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

• DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.

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, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- · Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.