GUIDE 156

SUBSTANCES - TOXIC AND/OR CORROSIVE (COMBUSTIBLE/WATER-SENSITIVE)

ERG2000

POTENTIAL HAZARDS

FIRE OR EXPLOSION

• Combustible material: may burn but does not ignite readily.

- Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff.
- · When heated, vapors may form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- · Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- · Vapors may travel to source of ignition and flash back.
- Contact with metals may evolve flammable hydrogen gas.
- · Containers may explode when heated or if contaminated with water.

HEALTH

- TOXIC; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns, or death.
- Reaction with water or moist air will release toxic, corrosive or flammable gases.
- · Reaction with water may generate much heat which will increase the concentration of fumes in the air.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and 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.
- Isolate spill or leak area immediately for at least 50 to 100 meters (160 to 330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- · Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which 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.

EVACUATION

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.

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EMERGENCY RESPONSE

FIRE

Note: Most foams will react with the material and release corrosive/toxic gases.
 Small Fires •CO₂, dry chemical, dry sand, alcohol-resistant foam.
 Large Fires

- arge Fires
- 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.
- Use water spray or fog; do not use straight streams.
- Fire involving Tanks or Car/Trailer Loads
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- · Cool containers with flooding quantities of water until well after fire is out.
- 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.
- · Do not touch damaged containers or spilled material unless wearing
- appropriate protective clothing.
- Stop leak if you can do it without risk.
- A vapor suppressing foam may be used to reduce vapors.
- FOR CHLOROSILANES, use AFFF alcohol-resistant medium expansion foam to reduce vapors.
- 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.
- · Prevent entry into waterways, sewers, basements or confined areas.
- Small Spills Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

FIRST AID

- Move victim to fresh air. Call 911 or emergency medical service.
- · Apply artificial respiration if victim is not breathing.
- Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce 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.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.