GUIDE SUBSTANCES - TOXIC and/or CORROSIVE (Non-Combustible / Water-Sensitive)

POTENTIAL HAZARDS

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 that 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.

FIRE OR EXPLOSION
• Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
• Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars etc.).
• Substance will react with water (some violently), releasing corrosive and/or toxic gases and runoff.
• Contact with metals may evolve flammable hydrogen gas.
• Containers may explode when heated or if contaminated with water.

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 enclosed areas.

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
Spill
• 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".

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
• Note: Most foams will react with the material and release corrosive/toxic gases.
Small Fire
• CO₂ (except for Cyanides), dry chemical, dry sand, alcohol-resistant foam.
Large Fire
• Water spray, fog or alcohol-resistant foam.
• Move containers from fire area if you can do it without risk.
• Use water spray or fog; do not use straight streams.
• Dike fire-control water for later disposal; do not scatter the material.

**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.
• DO NOT GET WATER 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 Spill**
• 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.
• 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.
• 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.