# GUIDE GASES - FLAMMABLE (UNSTABLE)

## **POTENTIAL HAZARDS**

### FIRE OR EXPLOSION

- EXTREMELY FLAMMABLE.
- · Will be easily ignited by heat, sparks or flames.
- · Will form explosive mixtures with air.
- Silane (UN2203) will ignite spontaneously in 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.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- · Containers may explode when heated.
- · Ruptured cylinders may rocket.

### HEALTH

- · Vapors may cause dizziness or asphyxiation without warning.
- · Some may be toxic if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- · Fire may produce irritating and/or toxic gases.

### **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, uphill and/or upstream.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).

### PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

### **EVACUATION**

### Large Spill

Consider initial downwind evacuation for at least 800 meters (1/2 mile).

### Fire

 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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping document and/or the ERAP Program Section (page 391).

## Gases - Flammable (Unstable) GUIDE

## **EMERGENCY RESPONSE**

### FIRE

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

#### Small Fire

Dry chemical or CO<sub>a</sub>.

### Large Fire

- · Water spray or fog.
- Move containers from fire area if you can do it without risk.

### 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.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

### 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.
- Stop leak if you can do it without risk.
- Do not touch or walk through spilled material.
- · 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.
- 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

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- · Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- · Administer oxygen if breathing is difficult.
- · Remove and isolate contaminated clothing and shoes.
- 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 calm and warm.

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