# GUIDE OXIDIZERS (WATER-REACTIVE)

## POTENTIAL HAZARDS

### FIRE OR EXPLOSION

- · May ignite combustibles (wood, paper, oil, clothing, etc.).
- · React vigorously and/or explosively with water.
- Produce toxic and/or corrosive substances on contact with water.
- Flammable/toxic gases may accumulate in tanks and hopper cars.
- Some may produce flammable hydrogen gas upon contact with metals.
- Containers may explode when heated.
- · Runoff may create fire or explosion hazard.

### HEALTH

- TOXIC; inhalation or contact with vapor, substance, or decomposition products may cause severe injury
  or death.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause environmental contamination.

### **PUBLIC SAFETY**

- CALL 911. Then call emergency response telephone number on shipping paper. If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

### PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer when there is NO RISK OF FIRE.
- Structural firefighters' protective clothing provides thermal protection but only limited chemical protection.

### EVACUATION

### 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.

### Spill

- For highlighted materials; see Table 1 Initial Isolation and Protective Action Distances.
- For non-highlighted materials: increase the immediate precautionary measure distance, in the downwind direction, as necessary.

### 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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

## OXIDIZERS (WATER-REACTIVE) GUIDE

### **EMERGENCY RESPONSE**

### FIRE

DO NOT USE WATER OR FOAM.

#### Small Fire

· Dry chemical, soda ash or lime.

### Large Fire

- DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- If it can be done safely, move undamaged containers away from the area around the fire.

### Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles.
- 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) from immediate area.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- DO NOT GET WATER on spilled substance or inside containers.

### Small Spill

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

### Large Spill

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

### FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- · Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use 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.
- Contaminated clothing may be a fire risk when dry.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim calm and warm.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.

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TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANC
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TABLE 1-INTIAL IOCEANION AND PROTECTIVE ACTION DICIANCES														
			SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
			First ISOLATE in all Directions		Then PROTECT persons Downwind during				First ISOLATE in all Directions		Then PROTECT persons Downwind during			
ID No.	Guide	NAME OF MATERIAL	Meters	(Feet)	DAY Kilometers (Miles)		NIGHT Kilometers (Miles)		Meters	(Feet)	DAY Kilometers (Miles)		NIGHT Kilometers (Miles)	
1745	144	Bromine pentafluoride (when spilled on land)	100 m	(300 ft)	0.9 km	(0.5 mi)	2.5 km	(1.6 mi)	400 m	(1250 ft)	5.4 km	(3.3 mi)	10.7 km	(6.6 mi)
1745	144	Bromine pentafluoride (when spilled in water)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	150 m	(500 ft)	1.2 km	(0.7 mi)	4.0 km	(2.5 mi)
1746	144	Bromine trifluoride (when spilled on land)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.4 km	(0.3 mi)
1746	144	Bromine trifluoride (when spilled in water)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	1.0 km	(0.7 mi)	3.7 km	(2.3 mi)
2495	144	lodine pentafluoride (when spilled in water)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	1.1 km	(0.7 mi)	4.1 km	(2.6 mi)
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