


ID No.	Guide No.	Name of Material	TIH	WRM
1565	<a href="#">157</a>	Barium cyanide		
1575	<a href="#">157</a>	Calcium cyanide		
1587	<a href="#">151</a>	Copper cyanide		
1588	<a href="#">157</a>	Cyanides, inorganic, solid, n.o.s.		
1620	<a href="#">151</a>	Lead cyanide		
1626	<a href="#">157</a>	Mercuric potassium cyanide		
1636	<a href="#">154</a>	Mercury cyanide		
1642	<a href="#">151</a>	Mercury oxycyanide, desensitized		
1653	<a href="#">151</a>	Nickel cyanide		
1679	<a href="#">157</a>	Potassium cuprocyanide		
1680	<a href="#">157</a>	Potassium cyanide, solid		
1684	<a href="#">151</a>	Silver cyanide		
1689	<a href="#">157</a>	Sodium cyanide, solid		
1694	<a href="#">159</a>	Bromobenzyl cyanides, liquid		
1713	<a href="#">151</a>	Zinc cyanide		
1935	<a href="#">157</a>	Cyanide solution, n.o.s.		
2316	<a href="#">157</a>	Sodium cuprocyanide, solid		
2317	<a href="#">157</a>	Sodium cuprocyanide, solution		
3413	<a href="#">157</a>	Potassium cyanide, solution		
3414	<a href="#">157</a>	Sodium cyanide, solution		
3449	<a href="#">159</a>	Bromobenzyl cyanides, solid		

		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		
			DAY	NIGHT		DAY	NIGHT	
ID No.	Guide No.	Name of Material	Meters (Feet)	Km (Miles)	Km (Miles)	Meters (Feet)	Km (Miles)	Km (Miles)
1680	157	Potassium cyanide, solid (when spilled in water)	30m (100ft)	0.1km (0.1mi)	0.1km (0.1mi)	60m (200ft)	0.2km (0.1mi)	0.7km (0.4mi)
1689	157	Sodium cyanide, solid (when spilled in water)	30m (100ft)	0.1km (0.1mi)	0.1km (0.1mi)	60m (200ft)	0.2km (0.2mi)	0.9km (0.6mi)

## GUIDE 157 SUBSTANCES - TOXIC AND/OR CORROSIVE (NON-COMBUSTIBLE/WATER-SENSITIVE)

### POTENTIAL HAZARDS

#### HEALTH

- **TOXIC and/or CORROSIVE**; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns or death.
- Reaction with water or moist air may 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 environmental contamination.

#### FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- UN1802, UN2032, UN3084, UN3093, UN1796 (above 50%), UN1826 (above 50%), and UN2031 (above 65%) may act as oxidizers. Also consult GUIDE 140.
- Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Substance may react with water (some violently), releasing corrosive and/or toxic gases and runoff.
- Corrosives in contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or if contaminated with water.

#### 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 tank car or highway tank 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: Some foams will react with the material and release corrosive/toxic gases.

**Small Fire**

- CO<sub>2</sub> (except for Cyanides), dry chemical, dry sand, alcohol-resistant foam.

**Large Fire**

- Water spray, fog or alcohol-resistant foam.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Avoid aiming straight or solid streams directly onto the product.
- Dike runoff from fire control for later disposal.

**Fire Involving Tanks, Rail Tank Cars or Highway Tanks**

- Fight fire from maximum distance or use unmanned master stream devices 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 in direct contact with flames.

## SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from 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

Refer to the "General First Aid" section.

**Specific First Aid:**

- For corrosives, in case of contact, immediately flush skin or eyes with running water for at least 30 minutes. Additional flushing may be required.
- **In case of skin contact with Hydrofluoric acid (UN1790)**, if calcium gluconate gel is available, rinse 5 minutes, then apply gel. Otherwise, continue rinsing until medical treatment is available.



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

**EMERGENCY RESPONSE**

**FIRE**

**Small Fire**

- Dry chemical, CO<sub>2</sub> or water spray.

**Large Fire**

- Water spray, fog or regular foam.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Dike runoff from fire control for later disposal.
- Avoid aiming straight or solid streams directly onto the product.

**Fire Involving Tanks, Rail Tank Cars or Highway Tanks**

- Fight fire from maximum distance or use unmanned master stream devices 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 in direct contact with flames.
- For massive fire, use unmanned master stream devices or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

**SPILL OR LEAK**

- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Cover with plastic sheet to prevent spreading.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.
- For solids, prevent dust cloud and avoid inhalation of dust.

**FIRST AID**

Refer to the "General First Aid" section.



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

# GUIDE SUBSTANCES - TOXIC (COMBUSTIBLE) 152

## POTENTIAL HAZARDS

### HEALTH

- **Highly toxic**, may be fatal if inhaled, ingested or absorbed through skin.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause environmental contamination.

### FIRE OR EXPLOSION

- Combustible material: may burn but does not ignite readily.
- Containers may explode when heated.
- Those substances designated with a (P) may polymerize explosively when heated or involved in a fire.
- Runoff may pollute waterways.
- Substance may be transported in a molten form.

## 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.

### 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 tank car or highway tank 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.

# GUIDE 154 SUBSTANCES - TOXIC AND/OR CORROSIVE (NON-COMBUSTIBLE)

## POTENTIAL HAZARDS

### HEALTH

- **TOXIC and/or CORROSIVE**; inhalation, ingestion or skin contact with material may cause severe injury or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause environmental contamination.

### FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.).
- Corrosives in contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated.
- For electric vehicles or equipment, GUIDE 147 (lithium ion or sodium ion batteries) or GUIDE 138 (sodium batteries) should also be consulted.

## 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 tank car or highway tank 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**

**Small Fire**

- Dry chemical, CO<sub>2</sub> or water spray.

**Large Fire**

- Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Dike runoff from fire control for later disposal.

**Fire Involving Tanks, Rail Tank Cars or Highway Tanks**

- Fight fire from maximum distance or use unmanned master stream devices 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 in direct contact with flames.

**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.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

**FIRST AID**

Refer to the "General First Aid" section.

**Specific First Aid:**

- For corrosives, in case of contact, immediately flush skin or eyes with running water for at least 30 minutes. Additional flushing may be required.



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