

Common Name: **CYCLONITE**

Synonyms: Hexogen; RDX

CAS No: 121-82-4

 Molecular Formula:  $C_3H_6N_6O_6$ 

RTK Substance No: 0579

Description: White, crystalline powder

**HAZARD DATA**

Hazard Rating	Firefighting	Reactivity
<b>2 - Health</b> * - Fire * - Reactivity DOT#: UN 0483 ERG Guide #: 112 Hazard Class: 1.1 (Explosive)	* EXPLOSIVE Evacuate and let the fire burn or use large amounts of water from a sheltered position. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Nitrogen Oxides</i> . Use water spray to keep fire-exposed containers cool. <b>Cyclonite</b> may ignite combustibles (wood, paper and oil).	<b>Cyclonite</b> detonates on contact with MERCURY FULMINATE. Detonation can also be initiated by SUDDEN SHOCK, HIGH TEMPERATURE and/or FRICTION. <b>Cyclonite</b> reacts violently with COMBUSTIBLES; OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); and REDUCING AGENTS (such as LITHIUM, SODIUM, ALUMINUM and their HYDRIDES).

**SPILL/LEAKS**
**Isolation Distance:**

Small Spill: 500 meters (1/3 mile)

Large Spill: 800 meters (1/2 mile)

Fire: 1,600 meters (1 mile)

Use a cleanup specialist.

 Keep **Cyclonite** out of confined spaces, such as sewers, because of the possibility of an explosion.

DO NOT wash into sewer.

This substance is harmful to aquatic organisms.

**PHYSICAL PROPERTIES**

<b>Odor Threshold:</b>	None
<b>Flash Point:</b>	Explodes
<b>Exothermic Decomp:</b>	212°F (100°C)
<b>Vapor Pressure:</b>	$4.1 \times 10^{-9}$ mm Hg at 68°F (20°C)
<b>Specific Gravity:</b>	1.82 (water = 1)
<b>Water Solubility:</b>	Insoluble
<b>Boiling Point:</b>	528° to 536°F (276° to 280°C)
<b>Melting Point:</b>	402°F (206°C)
<b>Molecular Weight:</b>	222.2

**EXPOSURE LIMITS**
**OSHA:** None

**NIOSH:** 1.5 mg/m<sup>3</sup>, 10-hr TWA; 3 mg/m<sup>3</sup>, 15-min STEL

**ACGIH:** 0.5 mg/m<sup>3</sup>, 8-hr TWA

**IDLH:** None

**PROTECTIVE EQUIPMENT**

<b>Gloves:</b>	Neoprene
<b>Coveralls:</b>	DuPont Tyvek®
<b>Respirator:</b>	<0.5 mg/m <sup>3</sup> - Full facepiece APR with High efficiency filter >0.5 mg/m <sup>3</sup> - Supplied air

**HEALTH EFFECTS**

<b>Eyes:</b>	Irritation
<b>Skin:</b>	Irritation, rash or burning feeling
<b>Inhalation:</b>	Nose and throat irritation Headache, nausea, vomiting, weakness, confusion and seizures
<b>Chronic:</b>	Cancer (liver) in animals

**FIRST AID AND DECONTAMINATION**

<b>Remove</b>	the person from exposure.
<b>Flush</b>	eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.
<b>Quickly</b>	remove contaminated clothing. Immediately wash contaminated skin with large amounts of soap and water.
<b>Begin</b>	artificial respiration if breathing has stopped and CPR if necessary.
<b>Transfer</b>	promptly to a medical facility.