

Common Name: **PHENYTOIN**

Synonyms: 5,5-Diphenylhydantoin

CAS No: 57-41-0

Molecular Formula: C<sub>15</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub>

RTK Substance No: 1507

Description: Fine white or almost white, odorless, crystalline powder

**HAZARD DATA**

Hazard Rating	Firefighting	Reactivity
<b>3 - Health</b> <b>1 - Fire</b> <b>0 - Reactivity</b> DOT#: None ERG Guide #: None Hazard Class: None	<b>Phenytoin</b> may burn, but does not readily ignite. Use dry chemical, CO <sub>2</sub> , water spray or foam as extinguishing agents. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Nitrogen Oxides</i> . Use water spray to keep fire-exposed containers cool.	<b>Phenytoin</b> is not compatible with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE) and may react with REDUCING AGENTS (such as LITHIUM, SODIUM, ALUMINUM and their HYDRIDES).

**SPILL/LEAKS**

**Isolation Distance:**

Spill: 25 meters (75 feet)

Fire: 800 meters (1/2 mile)

Moisten spilled material first or use a HEPA-filter vacuum for clean-up and place into sealed containers for disposal.

Wash area with 60 to 70% *Ethanol*, followed by soap and water.

**PHYSICAL PROPERTIES**

<b>Odor Threshold:</b>	Odorless
<b>Vapor Pressure:</b>	1.2 x 10 <sup>-10</sup> mm Hg at 77 °F (25 °C)
<b>Specific Gravity:</b>	1.29 (water = 1)
<b>Water Solubility:</b>	Very slightly soluble
<b>Boiling Point:</b>	Decomposes
<b>Melting Point:</b>	563 ° to 568 °F (295 ° to 298 °C)
<b>Molecular Weight:</b>	252.28

**EXPOSURE LIMITS**

No occupational exposure limits have been established for **Phenytoin**.

**PROTECTIVE EQUIPMENT**

<b>Gloves:</b>	Nitrile and Neoprene
<b>Coveralls:</b>	Tyvek®
<b>Respirator:</b>	Spill: full facepiece APR with <i>Organic vapor/Acid gas and P100 particulate filter cartridges</i> Fire: SCBA

**HEALTH EFFECTS**

<b>Eyes:</b>	Irritation
<b>Skin:</b>	Irritation
<b>Inhalation:</b>	Headache, dizziness, drowsiness, weakness, tremors and confusion
<b>Chronic:</b>	Cancer (lymphatic system) in humans and (lymphatic system and liver) animals

**FIRST AID AND DECONTAMINATION**

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