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## Material Safety Data Sheet

### 5,5-Dimethylhydantoin

#### Section 1: Chemical Product and Company Identification

**Product Name:** 5,5-Dimethylhydantoin

**CAS#:** 77-71-4

**RTECS:** Not applicable.

**TSCA:** Not applicable

**CI#:** Not applicable.

**Synonym:** 5,5-Dimethyl-2,4-imidazolidinedione; 5,5-Dimethylimidazolidine-2,4-dione

**Chemical Name:** 5,5-Dimethylhydantoin

**Chemical Formula:** C<sub>5</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub>

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#### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS # %	By Weight
5,5-Dimethylhydantoin	77-71-4	≥ 100.0%

**Toxicological Data on Ingredients:** Not applicable.

#### Section 3: Hazards Identification

**Emergency Overview**

OSHA Hazards

No known OSHA hazards

**HMIS Classification**

Health Hazard: 0

Flammability: 0

Physical hazards: 0

**NFPA Rating**

Health Hazard: 0

Fire:0

Reactivity Hazard: 0

**Potential Health Effects**

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

**Section 4: First Aid Measures**

If inhaled If breathed in, move person into fresh air. If not breathing give artificial respiration

In case of skin contact Wash off with soap and plenty of water.

In case of eye contact Flush eyes with water as a precaution.

If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water.

**Section 5: Fire and Explosion Data**

**Flammable properties**

Flash point no data available

Ignition temperature no data available

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Section 6: Accidental Release Measures**

**Personal precautions**

Avoid dust formation.

**Environmental precautions**

Do not let product enter drains.

**Methods for cleaning up**

Sweep up and shovel. Keep in suitable, closed containers for disposal.

**Section 7: Handling and Storage**

**Handling**

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Storage**

Keep container tightly closed in a dry and well-ventilated place.

**Section 8: Exposure Controls/Personal Protection**

Contains no substances with occupational exposure limit values.

**Personal**

**protective**

**equipment**

**Respiratory**

**protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

For prolonged or repeated contact use protective gloves.

**Eye protection**

Safety glasses

**Hygiene measures**

General industrial hygiene practice.

## Section 9: Physical and Chemical Properties

### Appearance

Form crystalline

Colour colourless

### Safety data

pH no data available

Melting point 176 - 178 °C (349 - 352 °F)

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility no data available

## Section 10: Stability and Reactivity Data

### Storage stability

Stable under recommended storage conditions.

### Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

## Section 11: Toxicological Information

<p><b>Acute toxicity</b> LD50 Oral - rat - 7,800 mg/kg Remarks: Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or Respiration:Dyspnea.</p> <p><b>Irritation and corrosion</b> no data available</p> <p><b>Sensitisation</b> no data available</p> <p><b>Chronic exposure</b> IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.</p> <p><b>Signs and Symptoms of Exposure</b> Central nervous system depression, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</p> <p><b>Potential Health Effects</b></p> <p><b>Inhalation</b>      May be harmful if inhaled. May cause respiratory tract irritation.</p> <p><b>Skin</b>              May be harmful if absorbed through skin. May cause skin irritation.</p> <p><b>Eyes</b>              May cause eye irritation</p> <p><b>Ingestion</b>        May be harmful if swallowed.</p> <p><b>Additional Information</b> RTECS: MU0977000</p>
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<p><b>Section 12: Ecological Information</b></p> <p><b>Elimination information (persistence and degradability)</b> no data available</p> <p><b>Ecotoxicity effects</b></p> <p>Toxicity to fish              LC50 - Pimephales promelas (fathead minnow) - 16,500 mg/l - 96 h</p> <p><b>Further information on ecology</b> no data available</p>
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<p><b>Section 13: Disposal Considerations</b></p> <p><b>Product</b> Observe all federal, state, and local environmental regulations.</p> <p><b>Contaminated packaging</b> Dispose of as unused product.</p>
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**Section 14: Transport Information**

**DOT (US)**  
Not dangerous goods

**IMDG**  
Not dangerous goods

**IATA**  
Not dangerous goods

**Section 15: Other Regulatory Information**

**OSHA Hazards**  
No known OSHA hazards

**DSL Status**  
All components of this product are on the Canadian DSL list.

**SARA 302 Components**  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**  
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**  
No SARA Hazards

**Massachusetts Right To Know Components**  
No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
5,5-Dimethylhydantoin	77-71-4	

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
5,5-Dimethylhydantoin	77-71-4	

**California Prop. 65 Components**  
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

**Section 16: Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/09/2005 05:35 PM

**Last Updated:** 05/21/2013 12:00 PM

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