Material Safety Data Sheet
Nitrofurantoin MSDS

Section 1: Chemical Product and Company Identification

Product Name: Nitrofurantoin
Catalog Codes: SLN2440
CAS#: 67-20-9
RTECS: MU2800000
TSCA: TSCA 8(b) inventory: Nitrofurantoin
CI#: Not available.
Synonym: 1-[[5-Nitro-2-furanyl)methylene]amino]-2,4-imidazolidinedione
Chemical Name: Not available.
Chemical Formula: C8H6N4O5

Contact Information:
Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396
US Sales: 1-800-901-7247
International Sales: 1-281-441-4400
Order Online: ScienceLab.com
CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300
International CHEMTREC, call: 1-703-527-3887
For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrofurantoin</td>
<td>67-20-9</td>
<td>100</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: Nitrofurantoin: ORAL (LD50): Acute: 604 mg/kg [Rat]. 360 mg/kg [Mouse]. 53 mg/kg [Bird].

Section 3: Hazards Identification

Potential Acute Health Effects:
Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of inhalation. Severe over-exposure can result in death.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to kidneys, the nervous system. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures
Eye Contact: Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.

Skin Contact:
After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:
Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

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Section 5: Fire and Explosion Data

<table>
<thead>
<tr>
<th>Flammability of the Product:</th>
<th>May be combustible at high temperature.</th>
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</thead>
<tbody>
<tr>
<td>Auto-Ignition Temperature:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash Points:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammable Limits:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of Combustion:</td>
<td>These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).</td>
</tr>
<tr>
<td>Fire Hazards in Presence of Various Substances:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Fire Fighting Media and Instructions:</td>
<td>SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.</td>
</tr>
<tr>
<td>Special Remarks on Fire Hazards:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special Remarks on Explosion Hazards:</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 6: Accidental Release Measures

<table>
<thead>
<tr>
<th>Small Spill:</th>
<th>Use appropriate tools to put the spilled solid in a convenient waste disposal container.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Spill:</td>
<td>Use a shovel to put the material into a convenient waste disposal container.</td>
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</tbody>
</table>

Section 7: Handling and Storage

Precautions:
Keep locked up Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable
Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:
Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Powdered solid.)
Odor: Not available.
Taste: Not available.
Molecular Weight: 238.16 g/mole
Color: Yellow.
pH (1% soln/water): Not available.
Boiling Point: Not available.
Melting Point: Decomposes. (271°C or 519.8°F)
Critical Temperature: Not available.
Specific Gravity: Not available.
Vapor Pressure: Not applicable.
Vapor Density: Not available.
Volatility: Not available.
Odor Threshold: Not available.
Water/Oil Dist. Coeff.: Not available.
Ionicity (in Water): Not available.
Dispersion Properties: Not available.
Solubility: Not available.

Section 10: Stability and Reactivity Data
Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Not available.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: No.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals: Acute oral toxicity (LD50): 53 mg/kg [Bird].
Chronic Effects on Humans: The substance is toxic to kidneys, the nervous system.
Other Toxic Effects on Humans: Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant, permeator), of inhalation.
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are more toxic.
Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Section 14: Transport Information

DOT Classification:
Identification:
Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information
Federal and State Regulations:
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Nitrofurantoin California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: Nitrofurantoin TSCA 8(b) inventory: Nitrofurantoin


Other Classifications:
WHMIS (Canada): CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).
DSCL (EEC):
R22- Harmful if swallowed. R36/38- Irritating to eyes and skin.

HMIS (U.S.A.):
- Health Hazard: 2
- Fire Hazard: 1
- Reactivity: 0
- Personal Protection: E

National Fire Protection Association (U.S.A.):
- Health: 2
- Flammability: 1
- Reactivity: 0
- Specific hazard:

Protective Equipment:
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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