Section 1: Chemical Product and Company Identification

Cat#: 00886
Part Name: NADIC METHYL ANHYDRIDE (SEND DS233)
Supplier: Polysciences, Inc.
400 Valley Road
Warrington, PA 18976 USA
MSDS Telephone #215-343-6484 Emergency only #215-378-4526

Identified uses: Laboratory use, manufacture of substances

Section 2: Hazards Identification

Hazard Overview
Causes eye burns.
Causes skin and eye burns.
Harmful if inhaled or swallowed.
May cause allergic respiratory reaction.

GHS Classification
Acute Toxicity Oral Cat 4, Acute Toxicity Inhalation Cat 4
Respiratory Sensitizer Category 1B
Serious Eye Damage Cat 1C, Skin Corrosion Cat 1C, Eye Irritation Cat 2B
Serious Eye Damage Category 1C

Signal word: Danger

Hazard and Precautionary Statements
H302 + H332 Harmful if swallowed or if inhaled
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P280A Wear protective gloves
P285 In case of inadequate ventilation wear respiratory protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305B IF IN EYES, Separate eyelids with finger tips.
P314 Get medical advice/attention if you feel unwell.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P351 Rinse cautiously with water for several minutes.
P501 Dispose of contents/container to proper waste area in accordance with institutional practices and local, state or federal regulations.

NFPA Rating
Hazard Ratings: These ratings are Polysciences’ Inc. own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49).
**Section 3: Composition/ Information on Ingredients**

Note: Items listed with a CASRN... number have no CAS# available.

<table>
<thead>
<tr>
<th>Item#</th>
<th>Name</th>
<th>EINECS</th>
<th>CAS#</th>
<th>% in product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4,7-Methanoisobenzofuran-1,3-dione, 3a,4,7,7a-tetrahydromethyl-</td>
<td>246-644-8</td>
<td>0025134218</td>
<td>95-100</td>
</tr>
<tr>
<td></td>
<td>(3a.alpha,.4.alpha,.7.alpha,.7a.alpha.-)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Section 4: First Aid Measures**

Contact medical personnel if discomfort persists.
Flush eyes with flowing water for at least 15 minutes.
Remove to fresh air.
Separate eyelids with finger tips.
Wash skin with deluge of water for at least 15 minutes.

**Section 5: Fire Fighting Measures**

- Flash point, deg F.: 275
- Method: CC
- UEL: no data
- LEL: no data
- Autoignition temperature, deg. F.: no data

**Flame Propagation Rate:** no data

**Hazardous Combustion Products:** aldehydes; acids

**Section 6: Accidental Release Measures**

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.

- Contain spilled liquids.
- Protect personnel from exposure.
- Ventilate the area.

**Section 7: Handling and Storage**

Store at room temp

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

**OSHA (ACGIH) Exposure Limits**

<table>
<thead>
<tr>
<th>CAS#: 0025134218</th>
<th>IDLH: NE</th>
<th>OSHA</th>
<th>NE</th>
<th>NE</th>
<th>NE</th>
<th>NE</th>
<th>NE</th>
<th>NE</th>
<th>NE</th>
<th>NE</th>
</tr>
</thead>
</table>

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.

Use chemical splash goggles and face shield.
Use latex or equivalent gloves.
Use process enclosures, local exhaust ventilation, or other engineering controls.

Chemical-resistant gloves should be worn whenever this material is handled. The glove material has to be impermeable and resistant to the product. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Flush and remove gloves immediately after use. Wash hands with soap and water. All glove recommendations presume that the risk of exposure is through splash and not intentional immersion of the hands into the product.

Since glove permeation data does not exist for this material, no recommendation for the glove material can be given for the product. Permeation data must be obtained from the glove manufacturer to determine if the glove is suitable for the task.

**Section 9: Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C10H10O3</td>
</tr>
<tr>
<td>Formula Weight</td>
<td>178.2</td>
</tr>
<tr>
<td>boiling point</td>
<td>284 @ 100 mm Hg</td>
</tr>
<tr>
<td>melting point</td>
<td>&lt;18 C</td>
</tr>
<tr>
<td>vapor pressure</td>
<td>1.5 mm Hg @ 30 C</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.245</td>
</tr>
<tr>
<td>ph</td>
<td>no data</td>
</tr>
<tr>
<td>solubility</td>
<td>insoluble but will hydrolyze t</td>
</tr>
<tr>
<td>appearance</td>
<td>pale tan liquid</td>
</tr>
</tbody>
</table>

**Section 10: Stability and Reactivity**
Section 11: Toxicological Information

Acute Data: LD50 oral rat 958 mg/kg; LD50 dermal rabbit >2000 mg/kg; LC50 inhalation rat 4 hours 8/10 @ 750 mg/cu meter in 7 days

Subchronic data: erythema; itching; dermatitis; edema; conjunctivitis; corneal opacity; difficulty in breathing

Section 12: Ecological Information

no data

Section 13: Disposal Considerations

The following chart lists the status of the chemical and its components in reference to 40 CFR Part 261.33. If the product is listed by code number the substance may be subject to special federal and state disposal regulations. If no codes are listed the material must be disposed in compliance with all Federal, State and Local Regulations.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Waste Code</th>
<th>Regulated Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>0025134218</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

Section 14: Transportation Data

Proper Shipping Name: CORROSIVE LIQUIDS, N.O.S.
Chemical Name: METHYL NORBORNENE DICARBOXYLIC ANHYDRIDE
UN: UN1760
Class: 8
PG: III

Section 15: Regulatory Information

All components of this product are on the TSCA public inventory.

Prop 65 - Column A identifies those items which are known to the State of California to cause cancer. Column B identified items which are known to the State of California to cause reproductive toxicity.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>0025134218</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

State Regulatory Information: If a CAS# is listed below this material is subject to the listed state right-to-know requirements.

<table>
<thead>
<tr>
<th>CAS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>0025134218</td>
</tr>
</tbody>
</table>

SARA Toxic Release Chemicals (as defined in Section 313 of SARA Title III)

This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The list is also referred to as the Toxics Release Inventory (TRI) List.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Regulated name</th>
<th>de minimis conc. %</th>
<th>Rep. Thres.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0025134218</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

SARA Extremely Hazardous Substances and TPQs

This list includes hazardous chemicals as defined in 29 CFR 1910.1200(c); and extremely hazardous substances regulated under Section 302 of SARA Title III with their TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Regulated name</th>
<th>TPQ (pounds)</th>
<th>EHS-RQ(pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0025134218</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

CERCLA

The hazardous substances, and their reportable quantities (RQs) are listed in the federal regulations at 40 CFR Part 302. Table 302.4. Release of a CERCLA hazardous substance in an amount equal to or greater than its RQ, in any 24-hour period, must be reported to the National Response Center at (800) 424-8802.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Regulated name</th>
<th>RQ (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0025134218</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>
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END OF MSDS