Material Name: METHYL-M-NITROBENZOATE

ChemADVISOR, Inc.
Stone Quarry Crossing
811 Camp Horne Road, Suite 220
Pittsburgh, PA 15237
E-mail: info@chemadvisor.com

MSDS is for reference use only; please contact manufacturer for emergency response information, routine product inquiries and orders.

Chemical Family
esters, aromatic, nitro

Synonyms
3-NITROBENZOIC ACID, METHYL ESTER; M-NITROBENZOIC ACID, METHYL ESTER; M-CARBOMETHOXYNITROBENZENE; METHYL 3-NITROBENZOATE

EMERGENCY OVERVIEW
Color: colorless
Physical Form: crystals
Physical Hazards: Unknown fire hazard.

POTENTIAL HEALTH EFFECTS

Inhalation
Short Term: symptoms of drunkenness
Long Term: no information is available

Skin Contact
Short Term: irritation
Long Term: no information is available

Eye Contact
Short Term: irritation
Long Term: no information is available

Ingestion
Short Term: no information is available
Long Term: no information is available

** * * Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS * * *

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component / EC#</th>
<th>Percent</th>
<th>Symbol(s)</th>
<th>Risk Phrase(s)</th>
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<tr>
<td>618-95-1</td>
<td>METHYL-M-NITROBENZOATE 210-573-0</td>
<td>&gt;99</td>
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</table>

** * * Section 4 - FIRST AID MEASURES * * *

** Inhalation**
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

** Skin**
Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

** Eyes**
Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

** Ingestion**
If a large amount is swallowed, get medical attention.

** * * * Section 5 - FIRE FIGHTING MEASURES * * *

See Section 9 for Flammability Properties

** NFPA Ratings:**
** Health:** 1  ** Fire:** U  ** Reactivity:** 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

** Flammable Properties**
Unknown fire hazard.

Use extinguishing agents appropriate for surrounding fire.

** Fire Fighting Measures**
Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

** * * * Section 6 - ACCIDENTAL RELEASE MEASURES * * *

** Occupational spill/release**
Stop leak if possible without personal risk. Small spills:
Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Keep unnecessary people away, isolate hazard area and deny entry.

** * * * Section 7 - HANDLING AND STORAGE * * *

** Storage Procedures**
Store and handle in accordance with all current regulations and standards.
** * * Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION * * * **

Component Exposure Limits
ACGIH, NIOSH, EU, OSHA (US) and Mexico have not developed exposure limits for any of this product's components.

Exposure Limits for Chemicals which may be generated during processing
This material has no components listed.

Ventilation
Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face
Wear splash resistant safety goggles. Provide an emergency eye wash fountai n and quick drench shower in the immediate work area.

Protective Clothing
Wear appropriate chemical resistant clothing.

Glove Recommendations
Wear appropriate chemical resistant gloves.

Respiratory Protection
Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum.
Consider warning properties before use.
Any air-purifying full-facepiece respirator equipped with an N95, R95, or P95 filter. The following filters may also be used: N99, R99, P99, N100, R100 or P100.
Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter.
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.

For Unknown Concentrations or Immediately Dangerous to Life or Health -
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

** * * Section 9 - PHYSICAL AND CHEMICAL PROPERTIES * * * **

<table>
<thead>
<tr>
<th>Physical State: Solid</th>
<th>Appearance: Not available</th>
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<tbody>
<tr>
<td>Color: colorless</td>
<td>Physical Form: crystals</td>
</tr>
<tr>
<td>Odor: Not Available</td>
<td>Odor Threshold: Not available</td>
</tr>
<tr>
<td>Melting Point: 78 - 80 °C</td>
<td>Boiling Point: 279 °C</td>
</tr>
<tr>
<td>Vapor Pressure: Not applicable</td>
<td>Vapor Density (air = 1): Not applicable</td>
</tr>
<tr>
<td>Density: Not available</td>
<td>Specific Gravity (water = 1): Not available</td>
</tr>
<tr>
<td>Water Solubility: insoluble</td>
<td>Coeff. Water/Oil Dist: Not available</td>
</tr>
<tr>
<td>Molecular Weight: 181.16</td>
<td>Molecular Formula: C8-H7-N-O4</td>
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</tbody>
</table>

Solvent Solubility
Slightly Soluble: alcohol

** * * Section 10 - STABILITY AND REACTIVITY * * * **
**Chemical Stability**
Stable at normal temperatures and pressure.

**Conditions to Avoid**
Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

**METHYL-M-NITROBENZOATE:**
No data available.

**Hazardous Decomposition Products**
oxides of nitrogen

Thermal decomposition products: oxides of nitrogen.

**Possibility of Hazardous Reactions**
Will not polymerize.

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**Section 11 - TOXICOLOGICAL INFORMATION**

**Component Analysis - LD50/LC50**
The components of this material have been reviewed in various sources and no selected endpoints have been identified.

**RTECS Acute Toxicity (selected)**
The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

**Component Carcinogenicity**
None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

**RTECS Irritation**
The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

**Inhalation - Acute Exposure**
METHYL-M-NITROBENZOATE: No data available. Some benzyl alkyl esters cause narcosis and death in animals.

**Inhalation - Chronic Exposure**
METHYL-M-NITROBENZOATE: No data available.

**Skin Contact - Acute Exposure**
METHYL-M-NITROBENZOATE: No data available. Some benzyl alkyl esters may cause local irritation.

**Skin Contact - Chronic Exposure**
METHYL-M-NITROBENZOATE: No data available.

**Eye Contact - Acute Exposure**
METHYL-M-NITROBENZOATE: No data available. Some benzyl alkyl ester may cause local irritation.

**Eye Contact - Chronic Exposure**
METHYL-M-NITROBENZOATE: No data available.

**Ingestion - Acute Exposure**
METHYL-M-NITROBENZOATE: No data available.

**Ingestion - Chronic Exposure**
METHYL-M-NITROBENZOATE: No data available.

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**Section 12 - ECOLOGICAL INFORMATION**

**Component Analysis - Aquatic Toxicity**
No LOLI ecotoxicity data are available for this product's components.

* * * Section 13 - DISPOSAL CONSIDERATIONS * * *

Disposal Methods
Dispose in accordance with all applicable regulations.

Component Waste Numbers
The U.S. EPA has not published waste numbers for this product's components.

* * * Section 14 - TRANSPORT INFORMATION * * *

US DOT Information: No Classification assigned.
TDG Information: No Classification assigned.
ADR Information: No Classification assigned.
RID Information: No Classification assigned.
IATA Information: No Classification assigned.
ICAO Information: No Classification assigned.
IMDG Information: No Classification assigned.

* * * Section 15 - REGULATORY INFORMATION * * *

U.S. Federal Regulations
None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)
Acute Health: No Chronic Health: No Fire: No Pressure: No Reactive: No

U.S. State Regulations
None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

Not listed under California Proposition 65

Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>US</th>
<th>CA</th>
<th>EU</th>
<th>AU</th>
<th>PH</th>
<th>JP</th>
<th>KR</th>
<th>CN</th>
<th>NZ</th>
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<tbody>
<tr>
<td>METHYL-M-NITROBENZOATE</td>
<td>618-95-1</td>
<td>Yes</td>
<td>NSL</td>
<td>EIN</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Globally Harmonized System of Classification and Labelling (GHS)
The listed component(s) of this material have been checked for country-specific published classifications according to the Globally Harmonized System of Classification and Labelling (GHS). The results of the queries are displayed below. Please see the individual country listings, as additional interpretations or reference information may be available. For a reference list of H- or P-statements, please visit ChemADVISOR’s website at www.chemadvisor.com/hscommand/ghs_H&Pphrases.html.

Australia GHS Classifications
No published information available. This material may be hazardous according to published criteria for classification.

EU GHS Classifications
No published information available. This material may be hazardous according to published criteria for classification.

Indonesia GHS Classifications
No published information available. This material may be hazardous according to published criteria for classification.

Japan GHS Classifications
No published information available. This material may be hazardous according to published criteria for classification.

Korea GHS Classifications
No published information available. This material may be hazardous according to published criteria for classification.

New Zealand GHS Classifications
No published information available. This material may be hazardous according to published criteria for classification.

South Africa GHS Classifications
No published information available. This material may be hazardous according to published criteria for classification.

Taiwan GHS Classifications
No published information available. This material may be hazardous according to published criteria for classification.

* * * Section 16 - OTHER INFORMATION * * *

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Farenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit;LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other Information
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