# Material Safety Data Sheet

**BROADVIEW TECHNOLOGIES, INC**  
Health: 2  
Flammability: 1  
Reactivity: 0  

**Material Safety Data Sheet**  
7-33 Amsterdam Street - Newark, NJ 07105  
ph (973) 465-0077  fax (973) 465-7713  

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**MTHPA-C-8K**  

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>DATE ISSUED</th>
<th>DOT HAZARD CLASSIFICATION</th>
<th>DOT SHIPPING NAME</th>
<th>DOT LABEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHPA-C-8K</td>
<td>01/05/08</td>
<td>Non-hazardous</td>
<td>Not regulated</td>
<td>None</td>
</tr>
</tbody>
</table>

**CAS NO.** 11070-44-3  
**FORMULA** C₉H₁₀O₃  
**CHEMICAL NAME** Methylethyltetrahydrophthalic anhydride with proprietary additive(s)

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### I - INGREDIENTS

<table>
<thead>
<tr>
<th>APPROXIMATE WEIGHT %</th>
<th>TWA/TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyltetrahydrophthalic anhydride (CAS No. 11070-44-3)</td>
<td>95-99 None est.</td>
</tr>
<tr>
<td>Otherquat salt(s) (New Jersey Trade Secret No. 28067400000-5057P)</td>
<td>1-5 None est.</td>
</tr>
</tbody>
</table>

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### II - PHYSICAL AND CHEMICAL PROPERTIES

- **APPEARANCE**: Clear to yellow liquid  
- **pH**: Acidic  
- **VISCOSITY**: 50-80 Cp @ 25°C  
- **ODOR**: Faint  
- **BOILING POINT**: Not known  
- **MELTING OR FREEZING POINT**: Not known  
- **VAPOR DENSITY (Air=1)**: 5.5  
- **VAPOR PRESSURE (mm Hg)**: Nil  
- **PERCENT VOLATILE (by weight)**: Nil  
- **SPECIFIC GRAVITY (WATER=1)**: ~1.2 @ 25°C  
- **EVAPORATION RATE (Butyl Acetate=1)**: <1  
- **SOLUBILITY IN WATER**: <0.1% (hydrolyzes)

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### III - FIRE AND EXPLOSION INFORMATION

- **FLASH POINT**: 148°C  
- **AUTO IGNITION TEMPERATURE**: Not known  
- **LOWER EXPLOSION LIMIT (%)**: 1.7 (MTHPA)  
- **UPPER EXPLOSION LIMIT (%)**: 10.5 (MTHPA)  

**EXTINGUISHING MEDIA**  
- FOAM X  
- ALCOHOL FOAM X  
- CO₂ X  
- DRY CHEMICAL X  
- WATER X  
- OTHER

### SPECIAL FIRE FIGHTING PROCEDURES:

Must wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.

### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Products of combustion are toxic.

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### IV - HEALTH EFFECTS INFORMATION

<table>
<thead>
<tr>
<th>PRIMARY ROUTES OF ENTRY</th>
<th>SKIN CONTACT</th>
<th>EYE CONTACT</th>
<th>INHALATION</th>
<th>INGESTION</th>
</tr>
</thead>
</table>

The information provided herein is compiled from internal reports and data from professional publications. IT IS FURNISHED WITHOUT WARRANTY OF ANY KIND EXPRESSED OR IMPLIED. It is intended to assist in evaluating the suitability and proper use of the material in manufacturing and in the development and implementation of safety precautions and procedures.
EFFECTS OF OVEREXPOSURE
No information found for this material. Based on the available animal toxicity information for similar products, it is anticipated that this material will produce moderate skin and eye irritation. Upon prolonged contact, burns and possible irreversible damage may be produced. Repeated or prolonged contact may induce skin or lung sensitization. Mists or vapors may be irritating to the respiratory tract.

OVEREXPOSURE MAY AGGRAVATE EXISTING CONDITIONS:
Bronchial asthma, eczema or other allergic conditions.

EMERGENCY AND FIRST AID PROCEDURES:
Eyes:
Flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. Get immediate medical attention. If physician not available, flush for additional 15 minutes and then transport victim to medical care.

Skin:
Wash affected areas with plenty of water, and soap if available, for several minutes. Remove and clean contaminated clothing and shoes. Seek medical attention if irritation develops.

Ingestion:
If swallowed, immediately give 3-4 glasses of water. DO NOT induce vomiting. If vomiting occurs, give fluids again. Get immediate medical attention. Have physician determine if patient's condition allows induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person.

Inhalation:
Remove from area to fresh air. If not breathing, clear airway and start artificial respiration. If victim is having trouble breathing, give supplemental oxygen, if available. Get immediate medical attention.

CHEMICALS LISTED AS CARCINOGEN BY:
NATIONAL TOXICOLOGY PROGRAM - No
I.A.R.C. MONOGRAPHS - No
OSHA - No

STABILITY: STABLE X
  CONDITIONS TO AVOID
  Moisture, heat
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HAZARDOUS DECOMPOSITION PRODUCTS
Thermal decomposition may produce toxic organic vapors/fumes and oxides of carbon.

HAZARDOUS POLYMERIZATION CONDITIONS TO AVOID

MAY WILL NOT X None known
OCUR OCCUR

INCOMPATIBILITY (MATERIALS TO AVOID)
WATER X OTHER X Bases, oxidizing agents. (This material hydrolyzes in water.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Caution! Floors may become slippery. Wear appropriate protective gear and NIOSH/MSHA approved respirator where mists or vapors of unknown concentrations may be generated (self-contained breathing apparatus preferred).
Dike and contain spill with inert material (sand, earth, etc.). Transfer the liquid and solid separately to containers for recovery or disposal. Wet residue with water and absorb with inert material (sand, earth...) and transfer into appropriate containers for disposal. Keep spill out of sewers and open bodies of water.

WASTE DISPOSAL METHODS
Dispose of in compliance with all Federal, state and local laws and regulations. Incineration is the preferred method.

VENTILATION TYPE
In processes where mists or vapors may be generated, proper ventilation must be provided in accordance with good ventilation practices.

RESPIRATORY PROTECTION
In processes where mists or vapors may be generated, a NIOSH/MSHA jointly approved respirator is advised in the absence of proper environmental controls.

PROTECTIVE GLOVES
Rubber or plastic, when needed, to prevent skin contact.

EYE PROTECTION
Wear chemical goggles where there is a potential for eye contact. Use safety glasses with side shields under normal use conditions.

OTHER PROTECTIVE EQUIPMENT
Eye wash; safety shower; protective clothing (long sleeves, coveralls or other, as appropriate), when needed, to prevent skin contact.

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************************ VIII - STORAGE AND HANDLING ************************

**PRECAUTIONS FOR STORAGE AND HANDLING:**

Keep containers tightly closed until used.

************************ IX - TOXICOLOGY INFORMATION************************

**TOXICITY**

The toxicity information provided below is for the closely related materials, Methyltetrahydrophthalic anhydride (mixed isomers) and Tetrahydrophthalic anhydride.

**ACUTE**

For Methyltetrahydrophthalic anhydride:
- oral LD₅₀ (rat): 4430 mg/kg
- dermal LD₅₀ (rat): >2000 mg/kg (RTECS)
- dermal LD₅₀ (rabbit): >2000 mg/kg
- skin irritation (rabbit): Mild irritant.

For the related material, Hexahydrophthalic anhydride
- skin sensitization: sensitizer

For the related material, Tetrahydrophthalic anhydride:
- eye irritation (rabbit): moderate irritant (RTECS)

For the proprietary additive(s):
- mild eye and skin irritant

************************ X - MISCELLANEOUS AND REGULATORY INFORMATION************************

**FEDERAL LEVEL REGULATIONS:**

**TOXIC SUBSTANCES CONTROL ACT (TSCA INVENTORY) STATUS:**

This product is currently listed on U.S. EPA TSCA 8(b) inventory list.

**FEDERAL LEVEL REGULATIONS (continued):**

**TSCA Section 12(b) Export Notification:**

Components present in this product which, if exported, could require either annual or one-time reporting under this regulation are as follows:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Typical Maximum Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known</td>
<td></td>
<td></td>
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</tbody>
</table>

**OSHA Hazard Communication Standard for Trade Secrets**

Note: In case of emergency, information on the proprietary component(s) of this material will be released to authorized personnel.

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***** X - MISCELLANEOUS AND REGULATORY INFORMATION (continued)***************

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980) requires notification of the National Response Center (Telephone 800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQs) listed in 40 CFR 302.4:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known</td>
<td></td>
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</table>

SARA Title III, Sections 302/304 (Superfund Amendments and Reauthorization act of 1986) - This act requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and release Reportable Quantities (RQs) listed for the Components in 40 CFR 355:

<table>
<thead>
<tr>
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<th>Concentration</th>
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<tbody>
<tr>
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SARA Title III Sections 311/312 - This act requires reporting under the Community Right-to-Know provisions due to the inclusion of the following components of this material in one or more of the five hazard categories listed in 40 CFR 370:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyltetrahydrophthalic anhydride</td>
<td>11070-44-3</td>
<td>A</td>
</tr>
<tr>
<td>Proprietary Additive(s)</td>
<td>Proprietary</td>
<td>A</td>
</tr>
</tbody>
</table>

*) The five hazard categories are as follows: F=FIRE HAZARD; S=SUDDEN RELEASE OF PRESSURE; R=REACTIVE; A=IMMEDIATE (ACUTE) HEALTH HAZARD; C=DELAYED (CHRONIC) HEALTH HAZARD

SARA Title III Section 313 - This act requires submission of annual reports off the releases of the following components of this material if the threshold reporting quantities as listed in 40 CFR 372, are met or exceeded:

<table>
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<tr>
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<tr>
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STATE RIGHT-TO-KNOW REGULATIONS:

CALIFORNIA PROPOSITION 65 - Components present in this material which the State of California has found to cause cancer, birth defects or other reproductive harm are as follows:

<table>
<thead>
<tr>
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MASSACHUSETTS Right-to-Know - The following components of this material are included in the Massachusetts Substance List and are present at or above reportable levels:

<table>
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<tr>
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MICHIGAN Critical Materials - The following components of this material are included in the Michigan Critical Materials List:

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>None known</td>
<td></td>
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NEW JERSEY Right-to-Know - The following components of this material are included in the New Jersey Hazardous Substance List and are present at or above reportable levels:

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<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known</td>
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PENNSYLVANIA Right-to-Know - The following components of this material are included in the Pennsylvania Hazardous Substance List and are present at or above reportable levels:

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<th>Concentration</th>
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