Name: ENRGY 3®.E

Product ID: JM Polyiso Insulation, ENRGY 3®.E

Classification: 07 01 00.00 Thermal and Moisture Protection (insulation water barrier): Operation and Maintenance of Thermal and Moisture Protection

Website: www.jm.com/en/building-materials/commercial-roofing

Manufacturer: Johns Manville
Address: 717 17th St
Denver, Co 80202

Contact Name: Kelly Sandin
Title: Senior Product Regulatory and Safety Specialist
Phone: 303 978 2605
Email: kelly.sandin@jm.com

Description: Next generation polyisocyanurate insulation board where the fire resistance has been engineered into the polymer backbone without the need for added halogenated flame retardants.

Release Date: 2015-07-22
Expiry Date: 2018-07-22

Self-declared
Second Party
Third Party
Certifier
Certificate #

SUMMARY DISCLOSURE

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure
- Measured 100 ppm (ideal)
- Measured 1000 ppm
- Predicted by process chemistry
- As per MSDS (1,000 & 10,000 ppm)
- Not disclosed
- Other

Full Disclosure of Intentional Ingredients
- Yes
- No

Full Disclosure of Known Hazards
- Yes
- No

Disclosure Notes
- No measured residuals.

Contents in Descending Order of Quantity
POLYISOCYANURATE FOAM, Cellulose, PENTANE, Glass filaments, 2-ETHYLHEXANOIC ACID, POTASSIUM SALT, BIS(2-DIMETHYLAMINOETHYL)(METHYL)AMINE, POTASSIUM ACETATE

Hazards
- PBT (Persistent Bioaccumulative Toxic)
- Cancer
- Gene Mutation
- Development
- Reproductive
- Endocrine
- Respiratory
- Neurotoxicity
- Mammal
- Skin or Eye
- Aquatic toxicity
- Land toxicity
- Physical hazard
- Global warming
- Ozone depletion
- Multiple
- Unknown

Total VOC Content
Material (g/L): N/A
Regulatory (g/L): N/A

Does the product contain exempt VOCs?
- N/A

Are there VOC-free tints available?
- N/A

Notes

Certifications + Compliance
VOC Emissions: Not tested
VOC Content: N/A
The HPD Standard is solely a declaration of product content and direct health hazards associated with exposure to its individual contents. It is not a full assessment of environmental impacts from the life cycle of this product. It is not an assessment of risks associated with actual use of the product. It does not address the potential health impacts of substances used or created during manufacture that do not appear in the final product as residuals, nor substances created during combustion or other degradation processes.

This Health Product Declaration was generated following the requirements of the noted Standard version and is valid for a total of three years after date of issue or three months after a substantive change of product contents occurs. Users should verify that this Health Product Declaration is compliant with the most current version of the HPD Standard. Accuracy of claims made in this Health Product Declaration is the sole responsibility of the listed manufacturer and certifier (if applicable). The HPD Collaborative does not warrant any claim made herein, explicit or implicit. The HPD Standard is an “open standard” developed and managed by the HPD Collaborative, a nonprofit organization. For more information, visit hpdcollaborative.org.

### CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level. Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at www.hpdcollaborative.org/hazardlists.

**GS**: GreenScreen Benchmark; **RC**: Recycled Content, **PC**: Post Consumer, **PI**: Post Industrial (Pre-consumer), **BO**: Both; **Nano**: comprised of nanoscale particles or nanotechnology

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS RN</th>
<th>% weight</th>
<th>GS</th>
<th>RC</th>
<th>Nano</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard A</td>
<td>9063-78-9</td>
<td>69.6 %</td>
<td>LT-U</td>
<td>PC</td>
<td>N</td>
<td>Insulating foam</td>
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<tr>
<td>None found</td>
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<td>No warnings found on HPD Priority lists</td>
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<tr>
<td>Cellulose</td>
<td>65996-61-4</td>
<td>21 %</td>
<td>BO</td>
<td>N</td>
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<td>Facer</td>
</tr>
<tr>
<td>None found</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>No warnings found on HPD Priority lists</td>
</tr>
<tr>
<td>Amount varies with the thickness of the final product</td>
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<td></td>
</tr>
<tr>
<td>PENTANE</td>
<td>109-66-0</td>
<td>5 %</td>
<td>LT-P1</td>
<td>N</td>
<td>N</td>
<td>blowing agent</td>
</tr>
<tr>
<td>MAMMALIAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU H-Statements: H304: May be fatal if swallowed and enters airways</td>
</tr>
<tr>
<td>ACUTE AQUATIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU R-Phrases: R51: Toxic to aquatic organisms.</td>
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<tr>
<td>CHRON AQUATIC</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>EU H-Statements: H411 - Aquatic Chronic 2 - Toxic to aquatic life with long lasting effects</td>
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<tr>
<td>FLAMMABLE</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>EU H-Statements: H225 Highly flammable liquid and vapour.</td>
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<tr>
<td>MULTIPLE</td>
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<td></td>
<td>VwVwS: Class 2 Hazard to Waters</td>
</tr>
<tr>
<td>Glass filaments</td>
<td></td>
<td>3 %</td>
<td>PI</td>
<td>N</td>
<td></td>
<td>Facer</td>
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<tr>
<td>None found</td>
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<td></td>
<td>No warnings found on HPD Priority lists</td>
</tr>
<tr>
<td>Content varies with thickness of final product. No CAS number for this product.</td>
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<tr>
<td>2-ETHYLHEXANOIC ACID, POTASSIUM SALT</td>
<td>3164-85-0</td>
<td>1.2 %</td>
<td>LT-U</td>
<td>U</td>
<td>N</td>
<td>catalyst</td>
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</tbody>
</table>
### BIS(2-DIMETHYLAMINOETHYL)(METHYL)AMINE

- **CAS Number:** 3030-47-5
- **Concentration:** 0.1%
- **Hazard:** LT-P1
- **EU R-Phrases:** MAMMALIAN: R24: Toxic in contact with skin. (also in EU H-Statements)
- **Skin Irritation:** EU H-Statements: H314 Causes severe skin burns and eye damage (also in EU R-Phrases)
- **Environmental:** VwVwS: Class 2 Hazard to Waters

### POTASSIUM ACETATE

- **CAS Number:** 127-08-2
- **Concentration:** 0.1%
- **Hazard:** LT-U
- **EU R-Phrases:** NO WARNING
- **Skin Irritation:** NO WARNING
- **Environmental:** NO WARNING

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### CERTIFICATIONS AND COMPLIANCE

**Certifying Party**
- First: Manufacturer’s self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

**Applicable facilities**
- Manufacturing sites to which testing applies.

<table>
<thead>
<tr>
<th>Type</th>
<th>Standard or Certification</th>
<th>Certifying Party</th>
<th>Issue Date</th>
<th>Expiry Date</th>
<th>Certificate URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC Emissions</td>
<td>Not tested</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC Content</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycled Content</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
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</tbody>
</table>
**ACCESSORY MATERIALS**

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products. Note: This declaration is not intended to address hazards of the installation process.

<table>
<thead>
<tr>
<th>Required or Recommended Product</th>
<th>URL for Companion Health Product Declaration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition when required or recommended and/or other notes</td>
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</tr>
</tbody>
</table>

**NOTES**