SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : InsulThin™ HT

Manufacturer or supplier’s details
Company : Johns Manville
Address : P.O. Box 5108
         Denver, CO USA 80127
Telephone : +1 303-978-2000  8:00AM-5:00PM M-F
Emergency telephone number : 1-800-424-9300 (Chemtrec, in English)
Prepared by : productsafety@jm.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin irritation : Category 2
Eye irritation : Category 2A

GHS Label element
Hazard pictograms : 

Signal word : Warning

Hazard statements : H315 Causes skin irritation.
                   H319 Causes serious eye irritation.

Precautionary statements : Prevention:
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

Other hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Microporous insulation

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, amorphous, fumed</td>
<td>7631-86-9</td>
<td>&gt;= 50 - &lt; 70</td>
</tr>
<tr>
<td>Silica, amorphous, surface treated, fumed</td>
<td>67762-90-7</td>
<td>&gt;= 30 - &lt; 50</td>
</tr>
<tr>
<td>Silicon carbide</td>
<td>409-21-2</td>
<td>&gt;= 30 - &lt; 50</td>
</tr>
<tr>
<td>Continuous Filament Glass Fibers</td>
<td>Not Assigned</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact
If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact
Remove contact lenses.
Immediately flush eye(s) with plenty of water.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed
Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed
None known.

SECTION 5. FIREFIGHTING MEASURES

Unsuitable extinguishing media
High volume water jet

Hazardous combustion products
No hazardous combustion products are known

Specific extinguishing methods
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information
Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing dust.

Environmental precautions: Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling: Avoid formation of respirable particles. Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage: Electrical installations / working materials must comply with the technological safety standards. Keep in a dry, cool place.

Materials to avoid: No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, amorphous, fumed</td>
<td>7631-86-9</td>
<td>TWA (Dust)</td>
<td>20 Million particles per cubic foot (Silica)</td>
<td>OSHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA (Dust)</td>
<td>OSHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>80 mg/m3 /</td>
<td></td>
</tr>
</tbody>
</table>
### SAFETY DATA SHEET

**InsulThin™ HT**

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**Revision Date 02/05/2016**  
**Print Date 02/05/2016**

**%SiO2 (Silica)**

<table>
<thead>
<tr>
<th></th>
<th>TWA</th>
<th>NIOSH REL</th>
<th>OSHA</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>silicon carbide</td>
<td>TWA (Respirable)</td>
<td>5 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA (total)</td>
<td>10 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA (total dust)</td>
<td>15 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA (respirable fraction)</td>
<td>5 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.1 fibre/cm³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA (Inhalable fraction)</td>
<td>10 mg/m³</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>TWA (Respirable fraction)</td>
<td>3 mg/m³</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>TWA (Total dust)</td>
<td>10 mg/m³</td>
<td></td>
<td>OSHA</td>
</tr>
<tr>
<td></td>
<td>TWA (respirable dust fraction)</td>
<td>5 mg/m³</td>
<td></td>
<td>OSHA</td>
</tr>
<tr>
<td>Continuous Filament Glass Fibers</td>
<td>Not Assigned</td>
<td>TWA (Total dust)</td>
<td>10 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>TWA (Total dust)</td>
<td>15 mg/m³</td>
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</tr>
<tr>
<td></td>
<td>TWA (Respirable dust)</td>
<td>5 mg/m³</td>
<td></td>
<td>OSHA</td>
</tr>
<tr>
<td></td>
<td>TWA (Respirable dust)</td>
<td>5 mg/m³</td>
<td></td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

**Personal protective equipment**

**Respiratory protection**: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hand protection**

**Remarks**: Protective gloves against mechanical abrasion.

**Eye protection**: Safety glasses  
Wear face-shield and protective suit for abnormal processing problems.

**Skin and body protection**: Long sleeved clothing

**Hygiene measures**: Handle in accordance with good industrial hygiene and safety practice.  
When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.  
Written instructions for handling must be available at the work place.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**: Glass Fiber Nonwoven, BLANKET

**Colour**: off-white

**Odour**: none

**Odour Threshold**: Not applicable

**pH**: Not applicable

**Melting point/range**: > 1,500 °C

**Boiling point/boiling range**: Not applicable

**Flash point**: Not applicable

**Evaporation rate**: Not applicable

**Flammability (solid, gas)**: No data available

**Upper explosion limit**: Not applicable

**Lower explosion limit**: Not applicable

**Vapour pressure**: Not applicable

**Relative vapour density**: Not applicable

**Relative density**: No data available

**Water solubility**: No data available

**Solubility in other solvents**: No data available

**Partition coefficient: n-octanol/water**: No data available

**Auto-ignition temperature**: No data available

**Thermal decomposition**: No data available

**Viscosity, dynamic**: No data available

**Viscosity, kinematic**: No data available

SECTION 10. STABILITY AND REACTIVITY

**Reactivity**: No decomposition if stored and applied as directed.

**Chemical stability**: No decomposition if stored and applied as directed.

**Possibility of hazardous**: Stable under recommended storage conditions.
reactions
No hazards to be specially mentioned.
No decomposition if stored and applied as directed.

Conditions to avoid: No data available

Incompatible materials: Strong acids

Hazardous decomposition products: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:
Acute inhalation toxicity: Remarks: Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product and cannot occur unless there is direct contact.

Acute toxicity

Components:
Silica, amorphous, fumed:
Acute oral toxicity: LD50 (Rat): 3,160 mg/kg
Acute inhalation toxicity: No data available:
Acute dermal toxicity: No data available:

Skin corrosion/irritation

Product:
Remarks: Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product and cannot occur unless there is direct contact.

Skin corrosion/irritation

Components:
silicon carbide:
Result: Skin irritation

Serious eye damage/eye irritation

Product:
Remarks: Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product and cannot occur unless there is direct contact.

Serious eye damage/eye irritation

Components:
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**silicon carbide:**
Result: Eye irritation

**IARC**
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH**
Confirmed human carcinogen

**silicon carbide**  
409-21-2

Suspected human carcinogen

**OSHA**
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Further information**

**Product:**
Remarks: No data available

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**
No data available

**Persistence and degradability**
No data available

**Bioaccumulative potential**
No data available

**Mobility in soil**
No data available

**Other adverse effects**

**Product:**
Ozone-Depletion Potential: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

**Additional ecological information:**
No data available
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Disposal of residual product: Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International transport regulations
These products are not classified as dangerous goods according to international transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA list
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D) : Not relevant

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).
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California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

Crystalline silica 14808-60-7

JM has conducted industrial hygiene sampling to determine the potential for crystalline silica exposure while performing repetitive activities required during installation and handling of InsulThin. The monitoring results for crystalline silica were below the reporting limits for the analytical method (non-detect) and below both the OSHA permissible exposure limit (PEL) for crystalline silica of 0.1 mg/m³ and the American Conference of Governmental Industrial Hygienists (ACGIH) consensus threshold limit value (TLV) of 0.025 mg/m³. JM recommends that employers conduct their own site specific exposure assessments.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL.

SECTION 16. OTHER INFORMATION

Further information

As produced, the magnesium silicate fibers included in this product are vitreous (glassy) materials which do not contain crystalline silica. Continued exposure to elevated temperatures can cause the vitreous magnesium-silicate (alkaline-earth-silicate) fibers to devitrify (become crystalline). Clinoenstatite is the first crystalline formation to occur at approximately 1472°F (800°C). Clinoenstatite formation peaks at approximately 1832°F (1000°C), after which Protoenstatite (compositionally the same as Clinoenstatite) begins to form. Crystalline phase silica (Cristobalite) formation is possible at temperatures of approximately 2192°F (1200°C), however, the formation of crystalline silica is highly dependent on temperature, the duration of time that the fibers are exposed to high temperatures, fiber chemistry and/or the presence of fluxing agents. The formation of crystalline silica can only be confirmed through laboratory analysis of the “hot face” fiber.

Revision Date : 02/05/2016

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.