SAFETY DATA SHEET

1. Identification

Product identifier: Insulcast RTVS 27 HTC - Part B

Other means of identification

 SKU#: IS117H

Recommended use: Not available.

Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer:

 Company name: ITW Performance Polymers

 Address: 130 Commerce Drive

 Montgomeryville, PA 18936

 United States

 Telephone: Customer Service 215-855-8450

 Website: www.itwperformancepolymers.com

 E-mail: Not available.

 Contact person: EHS Department

 Emergency phone number:

 CHEMTREC 800-424-9300

 International 703-527-3887

2. Hazard(s) identification

Physical hazards: Not classified.

Health hazards:

 Acute toxicity, oral Category 5

 Acute toxicity, dermal Category 5

Environmental hazards: Not classified.

OSHA defined hazards: Not classified.

Label elements

 Hazard symbol: None.

 Signal word: Warning

 Hazard statement: May be harmful if swallowed. May be harmful in contact with skin.

Precautionary statement

 Prevention: Observe good industrial hygiene practices.

 Response: Wash hands after handling.

 Storage: Store away from incompatible materials.

 Disposal: Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC):

 None known.

Supplemental information:

% of the mixture consists of component(s) of unknown acute inhalation toxicity. 68.39% of the mixture consists of component(s) of unknown acute inhalation toxicity. 95.65% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 95.65% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium Oxide</td>
<td></td>
<td>1344-28-1</td>
<td>60 - 100</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me,</td>
<td></td>
<td>68083-19-2</td>
<td>10 - 30</td>
</tr>
<tr>
<td>vinyl group-terminated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polydimethylsiloxane</td>
<td></td>
<td>63148-62-9</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Quartz</td>
<td></td>
<td>14808-60-7</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Chemical name</td>
<td>Common name and synonyms</td>
<td>CAS number</td>
<td>%</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------</td>
<td>------------</td>
<td>---</td>
</tr>
<tr>
<td>Silicone Polymer</td>
<td>Unknown</td>
<td>1 - 5</td>
<td></td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td>&lt; 1</td>
<td></td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

### Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

### Skin contact
Wash off with soap and water. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.

### Eye contact
Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

### Ingestion
Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn’t get into the lungs. Get medical advice/attention if you feel unwell.

### Most important symptoms/effects, acute and delayed
Dusts may irritate the respiratory tract, skin and eyes.

### Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

### General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire-fighting measures

### Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

### Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

### Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

### Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

### Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

### General fire hazards
No unusual fire or explosion hazards noted.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up
Stop the flow of material, if this is without risk.

#### Large Spills:
Wet down with water and dike for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water.

#### Small Spills:
Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

### Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling
Do not taste or swallow. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities
Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).
8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium Oxide (CAS 1344-28-1)</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Quartz (CAS 14808-60-7)</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) Components</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminium Oxide (CAS 1344-28-1)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>15 mg/m³</td>
<td>Total dust.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartz (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td>US. ACGIH Threshold Limit Values Components</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminium Oxide (CAS 1344-28-1)</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Quartz (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.025 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>US. NIOSH: Pocket Guide to Chemical Hazards Components</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartz (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
<td>Respirable dust.</td>
</tr>
</tbody>
</table>

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls:
- Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment:
- **Eye/face protection**: Wear safety glasses with side shields (or goggles).
- **Skin protection**
  - **Hand protection**: Wear appropriate chemical resistant gloves.
  - **Other**: Wear appropriate chemical resistant clothing.
- **Respiratory protection**: Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
- **Thermal hazards**: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations:
- Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

| Appearance | Liquid. |
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Neutral |
| Odor | Slight. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | Not available. |
Initial boiling point and boiling range

- Initial boiling point: 320 °F (160 °C)

Flash point

- 205.0 °F (96.1 °C)

Evaporation rate

- Not available.

Flammability (solid, gas)

- Not applicable.

Upper/lower flammability or explosive limits

- Flammability limit - lower (%): Not available.
- Flammability limit - upper (%): Not available.
- Explosive limit - lower (%): Not available.
- Explosive limit - upper (%): Not available.

Vapor pressure

- Not available.

Vapor density

- Not available.

Relative density

- Not available.

Solubility(ies)

- Solubility (water): Not available.

Partition coefficient (n-octanol/water)

- Not available.

Auto-ignition temperature

- Not available.

Decomposition temperature

- Not available.

Viscosity

- Not available.

Other information

- Density: 16.29 lb/gal
- Explosive properties: Not explosive.
- Flammability class: Combustible IIIB estimated
- Oxidizing properties: Not oxidizing.
- Specific gravity: 1.96
- VOC: 0

10. Stability and reactivity

Reactivity

- The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability

- Material is stable under normal conditions.

Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.

Conditions to avoid

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials

- Strong oxidizing agents.

Hazardous decomposition products

- No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

- Inhalation: Dust may irritate respiratory system.
- Skin contact: May be harmful in contact with skin. Dust or powder may irritate the skin.
- Eye contact: Dust may irritate the eyes.
- Ingestion: May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

- Dusts may irritate the respiratory tract, skin and eyes.

Information on toxicological effects

Acute toxicity

- May be harmful in contact with skin. May be harmful if swallowed.

Skin corrosion/irritation

- Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization
Not a respiratory sensitizer.

Skin sensitization
This product is not expected to cause skin sensitization.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity
Quartz (CAS 14808-60-7) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Quartz (CAS 14808-60-7) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens
Quartz (CAS 14808-60-7) Known To Be Human Carcinogen.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not an aspiration hazard.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability
No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not established.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Quartz (CAS 14808-60-7)
Cancer
lung effects
immune system effects
kidney effects

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration
Aluminium Oxide (CAS 1344-28-1) % 1.0

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance
Aluminium Oxide (CAS 1344-28-1) Listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Yes

Classified hazard categories
Acute toxicity (any route of exposure)

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium Oxide</td>
<td>1344-28-1</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations

California Proposition 65
WARNING: This product can expose you to Quartz, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance
Quartz (CAS 14808-60-7) Listed: October 1, 1988
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
Quartz (CAS 14808-60-7)

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
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<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
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<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
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<tr>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances</td>
<td>Yes</td>
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<td></td>
<td>(PICCS)</td>
<td></td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Chemical Substance Inventory (TCSI)</td>
<td>No</td>
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<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

<table>
<thead>
<tr>
<th>Issue date</th>
<th>07-17-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>07-10-2018</td>
</tr>
<tr>
<td>Version #</td>
<td>03</td>
</tr>
</tbody>
</table>

HMIS® ratings

- Health: 2
- Flammability: 1
- Physical hazard: 0
- Personal protection: B

NFPA ratings

- Health: 2
- Flammability: 1
- Instability: 0

Disclaimer

ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

Revision information

- Accidental release measures: Personal precautions, protective equipment and emergency procedures
- Accidental release measures: Methods and materials for containment and cleaning up
- Handling and storage: Conditions for safe storage, including any incompatibilities
- Physical & Chemical Properties: Multiple Properties
- Stability and reactivity: Conditions to avoid
- Ecological information: Persistence / degradability
- Regulatory information: California Proposition 65
- Other information, including date of preparation or last revision: References
- Other information, including date of preparation or last revision: Disclaimer