**SAFETY DATA SHEET**

### SECTION 1- MANUFACTURER'S IDENTIFICATION

Product Name: INDURAZINC DF67    Product Code: H4-7910  
Manufacturer's Name: Induron Protective Coatings, LLC  
Address: 3333 Richard Arrington Blvd. N.  
Birmingham, Alabama 35234  
Emergency Phone: 1-800-424-9300  
Information Phone: (205)324-9584

### Section 2 - Composition / Information on Ingredients

**GHS Ratings:**

<table>
<thead>
<tr>
<th>GHS Ratings</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquid</td>
<td>3</td>
<td>Flash point &gt;= 23°C and &lt;= 60°C (140°F)</td>
</tr>
<tr>
<td>Inhalation Toxicity</td>
<td>Acute 3</td>
<td>Gases&gt;500&lt;=2500ppm, Vapors&gt;2+&lt;=10mg/l, Dusts&amp;mist&gt;0.5+&lt;=1mg/l</td>
</tr>
<tr>
<td>Skin corrosive</td>
<td>3</td>
<td>Reversible adverse effects in dermal tissue, Draize score: &gt;= 1.5 &lt; 2.3</td>
</tr>
<tr>
<td>Respiratory sensitizer</td>
<td>1</td>
<td>Respiratory sensitizer</td>
</tr>
<tr>
<td>Skin sensitizer</td>
<td>1</td>
<td>Skin sensitizer</td>
</tr>
<tr>
<td>Carcinogen</td>
<td>1A</td>
<td>Known Human Carcinogen Based on human evidence</td>
</tr>
<tr>
<td>Reproductive toxin</td>
<td>1B</td>
<td>Presumed, Based on experimental animals</td>
</tr>
</tbody>
</table>

**GHS Hazards**

- H226 Flammable liquid and vapour.
- H316 Causes mild skin irritation
- H317 May cause an allergic skin reaction
- H331 Toxic if inhaled
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H350 May cause cancer
- H360 May damage fertility or the unborn child

**GHS Precautions**

- **P201** Obtain special instructions before use
- **P202** Do not handle until all safety precautions have been read and understood
- **P210** Keep away from heat/sparks/open flames/hot surfaces - No smoking.
- **P233** Keep container tightly closed.
- **P240** Ground/bond container and receiving equipment.
- **P241** Use explosion-proof electrical equipment.
- **P242** Use only non-sparking tools.
- **P243** Take precautionary measures against static discharge.
- **P261** Avoid breathing dust/fume/gas/mist/vapours/spray.
- **P271** Use only outdoors or in a well-ventilated area
- **P272** Contaminated work clothing should not be allowed out of the workplace.
- **P280** Wear protective gloves/protective clothing/eye protection/face protection.
- **P281** Use personal protective equipment as required
- **P285** In case of inadequate ventilation wear respiratory protection
- **P311** Call a POISON CENTER or doctor/physician
- **P321** Wash contaminated skin, follow Physician's instructions for treatment.
- **P363** Wash contaminated clothing before reuse
- **P302+P352** IF ON SKIN: Wash with soap and water
- **P303+P361+P353** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- **P304+P340** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

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P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P308+P313 IF exposed or concerned: Get medical advice/attention

P332+P313 If skin irritation occurs: Get medical advice/attention

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician.

P405 Store locked up

P403+P233 Store in a well ventilated place. Keep container tightly closed

P403+P235 Store in a well ventilated place. Keep cool

P501 Dispose of contents/container in accordance to appropriate regulations and laws.

**Signal Word: Danger**

Preexisting skin, eye, and respiratory disorders may be aggravated by exposure to this product. Impaired kidney and liver functions from preexisting disorders may be aggravated by exposure to this product.

Kidney damage may be evidenced by changes in urine output, urine appearance, or edema (swelling from fluid retention). Liver damage may be evidenced by loss of appetite, jaundice and sometimes pain in the upper abdomen on the right side.

### Section 3 - Hazards Identification

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS number</th>
<th>Weight Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microcrystalline silica 98.5-99.0%</td>
<td>14808-60-7</td>
<td>10.00% - 20.00%</td>
</tr>
<tr>
<td>4,4'-Methylene diphenyl diisocyanate</td>
<td>101-68-8</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>Mica</td>
<td>12001-26-2</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>Isocyanic acid, polymethylene polyphenylene ester</td>
<td>9016-87-9</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>Benzene, 1,1'-methylenebis[isocyanato-]</td>
<td>26447-40-5</td>
<td>0.10% - 1.00%</td>
</tr>
</tbody>
</table>

### Section 4 - First Aid Measures

**INHALATION** - If product solids are inhaled either as dust or in the form of a spray mist, remove the person from exposure immediately. If breathing is difficult, irregular, or has stopped, start resuscitation; call a physician. Administer oxygen if a qualified operator is available.

**EYE CONTACT** - In case of eye contact, flush the eyes with water for fifteen (15) minutes. If contact lenses are worn, quickly remove them, then flush the eyes with water. Have a physician examine the eyes.

**SKIN CONTACT** - In case of skin contact, remove contaminated clothing. Flush the skin with large amounts of water, then wash the skin with soap and water.

**INGESTION** - If material is ingested, seek immediate medical attention. If vomiting occurs spontaneously, keep the head below the hips to prevent aspiration of liquid into the lungs.

Notes to Physician: No data found

### Section 5 - Fire Fighting Measures

Flash Point: 27 C (81 F)

LEL: 

UEL:

Flammable Product
**Section 6 - Accidental Release Measures**

**EXTINGUISHING MEDIA:** Use carbon dioxide (CO2), "alcohol" foam, dry chemical systems. Direct water application may cause violent frothing.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** Moisture can cause significant pressure increases in the packaging, leading to pressure caused leaks or even explosions.

**HAZARDOUS COMBUSTION PRODUCTS:** Oxides of carbon, hydrocarbons, hydrogen cyanide, oxides of sulfur and or zinc.

**FIRE FIGHTING:** If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with a water wash-down after fire and smoke exposure. Use water spray to cool unopened containers.

**Section 7 - Handling and Storage**

**HANDLING PRECAUTIONS:** Wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Keep nonessential personnel away from the contaminated area.

**SMALL SPILLS:** Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Wet absorbent materials with water to prevent spontaneous combustion with alkyd type formulas.

Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

**LARGE SPILLS:** Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Advise authorities if the product has entered or may enter, sewers, watercourses, or extensive land areas.

Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Wet absorbent with water for alkyd type spills.

**Section 8 - Exposure Controls / Personal Protection**

<table>
<thead>
<tr>
<th>Chemical Name / CAS No.</th>
<th>OSHA Exposure Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Other Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microcrystalline silica 98.5-99.0% 14808-60-7</td>
<td>.05 mg/m3 TWA</td>
<td>0.025 mg/m3 TWA (respirable fraction)</td>
<td>NIOSH: 0.05 mg/m3 TWA (respirable dust)</td>
</tr>
</tbody>
</table>

**REGULATORY REQUIREMENTS:** No data found.
ENGINEERING: Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the workplace. Use explosion-proof equipment and good manufacturing practice.

VENTILATION: Use only with adequate ventilation, i.e., ventilation in compliance with occupational exposure limits.

ADMINISTRATIVE CONTROLS: No data found.

PROTECTIVE EQUIPMENT: Wear splash goggles. If extra protection is required, wear a face shield over the splash goggles. Face shields are effective only if worn in addition to splash goggles.

Wear a chemical-resistant, butyl-rubber apron and other protective clothing, as deemed appropriate, to avoid skin contact with material.

Wear chemical-resistant gloves (butyl rubber or neoprene). Protective gloves should be inspected frequently and discarded when they exhibit cuts, tears, pinholes, or signs of excessive wear.

Wear chemical vapor mask or air supplied mask during exposure of vapors.

CONTAMINATED EQUIPMENT: Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

Section 9 - Physical and Chemical Properties
This mixture typically exhibits the following properties under normal circumstances:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Appearance</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>5.4 mmHg</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>3.5</td>
</tr>
<tr>
<td>DENSITY</td>
<td>9.15</td>
</tr>
<tr>
<td>Freezing point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling range</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosive Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Coating VOC Lb/Gal</td>
<td>3.73</td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash point</td>
<td>81 F, 27 C</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity
Stability: The product is stable under normal storage conditions.
The product is unstable in the presence of water, and active hydrogen containing compounds such as amines, alcohols, and acids.

This mixture is likely to exhibit the following combustion products: Carbon oxides, hydrogen cyanide, aliphatic compounds, and oxides of sulfur and zinc.

Hazardous polymerization will not occur.

### Section 11 - Toxicological Information

#### Mixture Toxicity
- Oral Toxicity LD50: 4,681mg/kg
- Inhalation Toxicity LC50: 6mg/L

#### Routes of Entry: Skin, Eyes, Breathing

**Ingestion**
Exposure to this material may affect the following organs: Skin, lungs, eyes, internal organs.

**Eyes**
**Lungs**
**Respiratory System**

#### Effects of Overexposure

**Carcinogenicity:** The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing).

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>% Weight</th>
<th>Carcinogen Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7</td>
<td>Microcrystalline silica 98.5-99.0%</td>
<td>10 to 20%</td>
<td>Microcrystalline silica 98.5-99.0%: NIOSH: potential occupational carcinogen IARC: Human carcinogen OSHA: listed</td>
</tr>
</tbody>
</table>

### Section 12 - Ecological Information

#### Component Ecotoxicity

### Section 13 - Disposal Considerations

As the US EPA, state, regional, and other regulatory agencies may have jurisdiction over the disposal of your facility's hazardous waste, it is incumbent upon you, the hazardous waste generator, to learn of and satisfy all the requirements which affect you. Dispose of the hazardous waste at a properly licensed and permitted disposal site or facility. Ensure conformity to all applicable hazardous waste disposal regulations.

The US EPA Hazardous Waste Numbers which follow are applicable to this unadulterated product if the product enters the "waste stream." Refer to Title 40 of the Code of Federal Regulations, Part 261 (40 CFR 261). This part of the Code identifies solid wastes which are subject to regulation under various sections of the Code and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA).

### Section 14 - Transport Information

#### Agency
- DOT: PAINT
- IATA: PAINT

<table>
<thead>
<tr>
<th>UN Number</th>
<th>Packing Group</th>
<th>Hazard Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1263</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>1263</td>
<td>III</td>
<td>3</td>
</tr>
</tbody>
</table>
State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING! This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

14808-60-7  Microcrystaline silica 98.5-99.0%  10 to 20%

HAZARDOUS AIR POLLUTANTS

101-68-8  4,4’-Methylenediphenyl diisocyanate

MASSACHUSETTS RIGHT TO KNOW

26447-40-5  Benzene, 1,1’-methylenebis[isocyanato- 0.1 to 1.0%
12001-26-2  Mica 1 to 5%
101-68-8  4,4’-Methylenediphenyl diisocyanate 1 to 5%
14808-60-7  Microcrystaline silica 98.5-99.0%  10 to 20%

NEW JERSEY RIGHT TO KNOW

26447-40-5  Benzene, 1,1’-methylenebis[isocyanato- 0.1 to 1.0%
9016-87-9  Isocyanic acid, polymethylenepolyphenylene ester 1 to 5%
12001-26-2  Mica 1 to 5%
14808-60-7  Microcrystaline silica 98.5-99.0%  10 to 20%

PENNSYLVANIA RIGHT TO KNOW

12001-26-2  Mica 1 to 5%
101-68-8  4,4’-Methylenediphenyl diisocyanate 1 to 5%
14808-60-7  Microcrystaline silica 98.5-99.0%  10 to 20%

CHEMICAL LIST FOR SARA 311/312

14808-60-7  Microcrystaline silica 98.5-99.0%

Country          Regulation          All Components Listed

EU Risk Phrases

Safety Phrase

- None

Hazardous Material Information System (HMIS)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
<th>PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>* 2</td>
<td>3</td>
<td>1</td>
<td>G</td>
</tr>
</tbody>
</table>

HMIS & NFPA Hazard Rating

Legend

* = Chronic Health Hazard
0 = INSIGNIFICANT
1 = SLIGHT
2 = MODERATE
3 = HIGH

National Fire Protection Association (NFPA)

Flammability

Health

Special

Instability

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