SECTION 1 – IDENTIFICATION

Product Name: PC® 88 adhesive Component 1

Manufacturer/Supplier:
Pittsburgh Corning Corporation
800 Presque Isle Drive
Pittsburgh, PA 15239

Information Number: 724-327-6100
CHEMTREC: 800/424-9300

Generic Name: Solvent based adhesive/sealant

Use: PC® 88 Adhesive Component 1 is part 1 of a two part adhesive used to bond FOAMGLAS® insulation to itself or to other porous or nonporous substrates.

Chemical Family: Mixture

General Comments: General information and emergency information available 8:00 AM – 5:00 PM Monday through Friday.

CHEMTREC telephone number is to be used only in the event of chemical transportation emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to technical service.

SECTION 2 – HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION:
- Potential Irritant
- Potential Carcinogen Category 1B
- Flammable Liquid Category 3
- Acute toxicity, oral Category 4
- Acute toxicity, dermal Category 4
- Acute toxicity, inhalation Category 4
- Germ cell mutagenicity Category 1B

ENVIRONMENTAL HAZARDS:
- Hazardous to the aquatic environment, Category 3
- long-term aquatic hazard

SIGNAL WORD: DANGER

HAZARD STATEMENT:
- H226 Flammable liquid and vapor
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H332 Harmful if inhaled
- H340 May cause genetic defects.
- H350 May cause cancer
- H412 Harmful to aquatic life with long lasting effects.

HAZARDOUS POLYMERIZATION: Will Not Occur

ROUTES OF EXPOSURE: Inhalation, Skin, Eyes and Ingestion.

IMMEDIATE EFFECTS:
INHALATION: No significant signs or symptoms indicate of any adverse health hazard are expected to occur at standard conditions due to the low volatility of this material.

SKIN CONTACT: Prolonged or repeated contact may cause skin irritation.

EYE CONTACT: Irritating, but will not permanently injure eye tissue.

INGESTION: If swallowed, this product may cause vomiting, nausea and diarrhea and maybe harmful if swallowed in large amounts. Not a likely route of entry.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

ACUTE: None.

CHRONIC: Prolonged contact may cause dermatitis. May cause cancer. May cause cancer by inhalation. May cause heritable genetic damage. Occupational exposure to the substance or mixture may cause adverse health effects.

Carcinogenicity – Components in this product are listed as a carcinogen by NTP, IARC, ACGIH or OSHA:

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
</tr>
<tr>
<td>Refractory Ceramic Fibers</td>
<td>142844-00-6</td>
</tr>
</tbody>
</table>

98.3% of the mixture consists of component(s) of unknown acute oral toxicity. 98.3% of the mixture consists of component(&) of unknown long-term hazards to the aquatic environment.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>App. % by wt.</th>
<th>CAS #</th>
<th>REACH REG. #</th>
<th>INDEX #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal, Bituminous</td>
<td>35-45</td>
<td>NA</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Distillates, Petroleum, Hydro-treated Heavy Naphthenic</td>
<td>20 - &lt;30 64742-52-5</td>
<td>- 649-465-000-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum asphalt</td>
<td>10- &lt;20</td>
<td>8052-42-4</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aliph</td>
<td>5- &lt;10 64742-89-8</td>
<td>- 649-267-00-0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disodium Metasilicate</td>
<td>&lt;1 6834-92-0</td>
<td>-</td>
<td>014-010-00-8</td>
<td></td>
</tr>
<tr>
<td>Refractory Ceramic Fibers</td>
<td>&lt;1 142844-00-6</td>
<td>- 650-017-00-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other components below reportable levels.</td>
<td>10 - &lt; 20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4 – FIRST AID MEASURES

GENERAL ADVICE: Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, end take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.
P308 + P313 IF exposed or concerned: Get medical advice/attention. If you feel unwell seek medical advice. (Show the label when possible.)

INHALATION: P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.

SKIN CONTACT: P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
P362 + P364 Take off contaminated clothing and wash it before reuse.

EYE CONTACT: Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses of present and easy to do. Consult a physician if ill effects or irritation occurs.

INGESTION: P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

SECTION 5 – FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Foam, CO₂, or Dry Chemical. If entering a confined area, use self-contained breathing apparatus.

EXPLOSION DATA:
SENSITIVITY TO MECHANICAL IMPACT: Stable
SENSITIVITY TO STATIC DISCHARGE: Stable

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

HAZARDOUS COMBUSTION PRODUCTS: Carbon Monoxide, Carbon Dioxide and Oxides of Nitrogen.

SPECIAL FIRE FIGHTING MEASURES: P370 + P378 In case of fire: Use appropriate media to extinguish. Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PRECAUTIONS FOR PERSONNEL: Avoid direct contact with product. Keep unnecessary personnel away. Wear protective clothing. Including gloves, and protective eyewear. Refer to recommendations in section 8. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling and before eating or drinking. No special ventilation required.

ENVIRONMENTAL PRECAUTIONS: P273 Avoid release to the environment.

PROCESS FOR CLEANING: Absorb with inert material. Remove sources of ignition. Scoop material with non-sparking tools.

REGULATORY REQUIREMENTS: Follow applicable OSHA regulations (29 CFR 1910.120).
SECTION 7 – HANDLING AND STORAGE

HANDLING: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing vapors.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

STORAGE: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P403 + P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

SECTION 8 – EXPOSURE RESTRICTIONS AND PERSONAL PROTECTION

EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>APP. % BY WT.</th>
<th>TLV</th>
<th>NIOSH REL TWA</th>
<th>PEL</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal, Bituminous*</td>
<td>35-45</td>
<td>2.0 mg/m³</td>
<td>2.4 mg/m³</td>
<td>2.0 mg/m³</td>
<td>1333-86-4</td>
</tr>
<tr>
<td>Hydro treated heavy naphthenic distillate*</td>
<td>20 - &lt;30</td>
<td>5.0 mg/m³</td>
<td>5.0 mg/m³</td>
<td>5.0 mg/m³</td>
<td>64742-52-5</td>
</tr>
<tr>
<td>Petroleum asphalt*</td>
<td>10- &lt;20</td>
<td>0.5 mg/m³</td>
<td>5 mg/m³</td>
<td>0.5 mg/m³</td>
<td>8052-42-4</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aliph.</td>
<td>5- &lt;10</td>
<td>300 ppm</td>
<td>300 ppm</td>
<td>300 ppm</td>
<td>64742-89-8</td>
</tr>
<tr>
<td>Disodium Metasilicate</td>
<td>&lt;1</td>
<td>200000 fibers/m³ (STEL)</td>
<td></td>
<td></td>
<td>6834-92-0</td>
</tr>
<tr>
<td>Ceramic fiber*</td>
<td>&lt;1</td>
<td>500000 fibers/m³</td>
<td></td>
<td>NE</td>
<td>142844-00-6</td>
</tr>
</tbody>
</table>

* Respirable/inhalable fraction
† Inextricably bound in asphalt matrix and won’t be released for inhalation under normal application use.

EXPOSURE GUIDELINES: See Above.

ENGINEERING CONTROLS: No specific controls are needed.

PERSONAL PROTECTIVE EQUIPMENT:

- EYE PROTECTION: Wear safety glasses or goggles to avoid eye contact.
- SKIN PROTECTION: Wear impervious gloves such as vinyl to minimize contact with skin. Wear normal protective work clothing with long sleeved shirt. Not required.

RESPIRATORY PROTECTION:

ENVIRONMENTAL EXPOSURE CONTROL: Avoid discharge to drains, sewers and natural water supply.

WORK/HYGIENIC PRACTICES: Avoid contact with eyes and skin. Wash thoroughly after handling and before eating or drinking.
SECTION 9 – PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Black viscous liquid</td>
</tr>
<tr>
<td>Flash Point: °C (°F) TCC</td>
<td>38.3 (101.0)</td>
</tr>
<tr>
<td>Odor</td>
<td>Hydrocarbon type odor</td>
</tr>
<tr>
<td>Ignition Temperature: °C (°F)</td>
<td>UN</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>NE</td>
</tr>
<tr>
<td>Evaporation Rate (BuAC=1):</td>
<td>UN</td>
</tr>
<tr>
<td>pH</td>
<td>NA</td>
</tr>
<tr>
<td>Flammability:</td>
<td>Flammable Liquid (Category 3)</td>
</tr>
<tr>
<td>Melting Point/Freezing Point: °C (°F)</td>
<td>UN</td>
</tr>
<tr>
<td>Flammable Limits:</td>
<td>LEL NE</td>
</tr>
<tr>
<td>Boiling Point: °C (°F)</td>
<td>&gt;119 (246)</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>500 °F (260 °C) estimated</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>UN</td>
</tr>
<tr>
<td>Vapor Pressure: (MM Hg): pH:</td>
<td>26 @ 38°C (100°F)</td>
</tr>
<tr>
<td>Partition Coefficient: n-octanol/water:</td>
<td>NE</td>
</tr>
<tr>
<td>Vapor Density: (Air = 1)</td>
<td>3.8</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>NE</td>
</tr>
<tr>
<td>Specific Gravity: (H₂O = 1):</td>
<td>1.048</td>
</tr>
<tr>
<td>Viscosity</td>
<td>UN</td>
</tr>
<tr>
<td>Density: lbs./gal (Calculated)</td>
<td>8.7</td>
</tr>
<tr>
<td>VOC: g/l (lbs./gal)</td>
<td>64 (0.53)</td>
</tr>
<tr>
<td>Percent Volatile By Volume: (%)</td>
<td>5.5</td>
</tr>
</tbody>
</table>

SECTION 10 – STABILITY AND REACTIVITY

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

STABILITY: Material is stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: No dangerous reaction known under conditions of normal use.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

MATERIALS TO AVOID: None known

DECOMPOSITION PRODUCTS: No hazardous decomposition products are known. Thermal decomposition may produce toxic fumes of CO and/or CO₂.
SECTION 11 – TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>CAS #</th>
<th>INGREDIENT</th>
<th>DERMAL LD50</th>
<th>INHALATION LD50</th>
<th>ORAL LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>1333-86-4</td>
<td>Hydro Treated Heavy Naphthenic Distillate*</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>64742-52-5</td>
<td>Hydroxyl Terminated Polybutadiene</td>
<td>&gt;3g/kg</td>
<td>NE</td>
<td>&gt;5g/kg (rat)</td>
</tr>
<tr>
<td>8052-42-4</td>
<td>Petroleum Asphalt*</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>64742-89-8</td>
<td>Coal, Bituminous</td>
<td>&gt;4,000 mg/kg (rat)</td>
<td>3,400 mg/kg (rat)</td>
<td>&gt;8,000 mg/kg (rat)</td>
</tr>
<tr>
<td>6834-92-0</td>
<td>Hydrocarbon Solvent</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>142844-00-6</td>
<td>Ceramic Fiber 1</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

* As Fumes

1 inextricably bound in asphalt matrix and won't be released for inhalation under normal application use.

SECTION 12 – ECOLOGICAL INFORMATION

P273  Avoid release to the environment

ECOTOXICITY: Harmful to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
</tr>
<tr>
<td><strong>Test Results</strong></td>
<td></td>
</tr>
<tr>
<td>Daphnia</td>
<td>1935 mg/l, 48 hours estimated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disodium Metasilicate</strong></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
</tr>
<tr>
<td><strong>Fish</strong></td>
<td>LC50</td>
</tr>
<tr>
<td><strong>Western mosquitofish</strong></td>
<td>1800 mg/l, 96 hours</td>
</tr>
<tr>
<td>(Gambusia affinis)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Species</strong></th>
<th><strong>Test Results</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Water flea (Ceriodaphnia dubia)</td>
<td>0.28 - 0.57 mg/l, 48 hours</td>
</tr>
</tbody>
</table>

2 Estimates for product may be based on additional component data not shown.

PERSISTENCE AND DEGRADABILITY: No data is available on the degradability of this product.

BIOACCUMULATIVE POTENTIAL: Not 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.
SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations. The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Hazardous waste code

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

SECTION 14 – TRANSPORT INFORMATION

SPECIAL SHIPPING INFORMATION: None

DOT SHIPPING CLASS: Not regulated as dangerous goods. Reclassified as non-hazardous for DOT Transportation per 49 CFR 173.150 (f).

IATA/IMDG
COATING SOLUTION, Class 3, UN1139, PG III.

Passenger and cargo aircraft Allowed
Cargo aircraft only Allowed

DOT SHIPPING LABEL: Not Required

ADR; IATA; IMDG; RID SHIPPING LABEL:
SECTION 15 – REGULATORY INFORMATION

US Regulatory Information

OSHA 29 CFR 1910-1200
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA
One or more components are not listed on TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Refractory Ceramic Fibers (CAS 142844-00-6) 0.1 % One Time Export Notification only.

SARA Title III:

SARA SECTION 302: Not Listed
SARA SECTION 304: Not Regulated
SARA (311,312) HAZARD CLASS:
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard – Yes
Pressure Hazard – No
Reactivity Hazard - No

SARA (311,312) CHEMICALS:
No

SARA (313) TRI reporting:
Not Regulated

CERCLA: listed
RCRA: Refer to section 13
CPSC CLASSIFICATION: NA

HMIS: FLAMMABILITY: 3 REACTIVITY: 0 HEALTH: 2

NFPA: FLAMMABILITY: 3 REACTIVITY: 0 HEALTH: 2

WHMIS CLASSIFICATION: CLASS D DIVISION 2B CLASS B DIVISION 2

CALIFORNIA PROPOSITION 65:

☐ A. This product contains a chemical known to the State of CA to cause birth defects or other reproductive harm.

☒ B. This product contains a chemical known to the State of CA to cause cancer.

☐ C. This product contains a chemical known to the State of CA to cause cancer and birth defects or other reproductive harm.

US state regulations:

US. Massachusetts RTK - Substance List
Asphalt (CAS 8052-42-4)
Distillates, Petroleum, Hydro-treated Heavy Naphthenic (CAS 64742-52-5)

US. New Jersey Worker and Community Right-to-Know Act
Asphalt (CAS 8052-42-4)
Refractory Ceramic Fibers (CAS 142844-00-6)

US. Pennsylvania Worker and Community Right-to-Know Law
Asphalt (CAS 8052-42-4)

US. Rhode Island RTK
Not regulated.
US. California Proposition 65
Refractory Ceramic Fiber and Quartz are listed due to their respirable nature in powder form. As supplied and applied the refractory ceramic fiber and quartz are bound within the product matrix and are not expected to be in a respirable form. Fumes of asphalt are listed by California Prop 65. As supplied and applied this product will not exhibit asphalt fumes.
WARNING: This product contains a chemical known to the State of California to cause cancer.
US - California Proposition 65 - CRT: Listed date/Carcinogenic substance
Asphalt (CAS 8052-42-4) Listed: January 1, 1990
Quartz (CAS 14808-60-7) Listed: October 1, 1988
Refractory Ceramic Fibers (CAS 142844-00-6) Listed: July 1, 1990

SECTION 16 – OTHER INFORMATION

Prepared in accordance with 29 CFR 1910.1200
This Product has been classified in accordance with the hazard criteria of the Controlled Products

NA = not applicable          NE = not established          UN = unavailable          CL = Ceiling Limit
NEGL = Negligible            PROP. = Proprietary

*THE DATA INCLUDED HEREIN ARE PRESENTED IN ACCORDANCE WITH THE VARIOUS ENVIRONMENT, HEALTH AND SAFETY REGULATIONS. IT IS THE RESPONSIBILITY OF A RECIPIENT OF THIS DATA TO REMAIN CURRENTLY INFORMED ON CHEMICAL HAZARD INFORMATION, TO DESIGN AND UPDATE ITS INFORMED ON CHEMICAL HAZARD INFORMATION, TO DESIGN AND UPDATE ITS PROGRAM AND TO COMPLY WITH ALL NATIONAL, FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS APPLICABLE TO SAFETY, OCCUPATIONAL HEALTH, RIGHT-TO-KNOW AND ENVIRONMENTAL PROTECTION.*
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