SAFETY DATA SHEET

89 High Temperature Membrane

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 89 High Temperature Membrane
PRODUCT CODE: 89

MANUFACTURER
Sauereisen
160 Gamma Drive
Pittsburgh, PA 15238

Emergency Contact: John Kozak
Emergency Phone: (800)424-9300
Alternate Contact: Don Schubert
Customer Service: 412 963-0303
E-Mail: jakozak@sauereisen.com

24 HR. EMERGENCY TELEPHONE NUMBERS
Poison Control Center (Medical): 1-800-222-1222
CHEMTREC (US Transportation): 1-800-424-9300
CHEMTREC (Outside US): 1-703-527-3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS
Target Organ Toxicity (Repeated exposure), Category 1

Health:
Carcinogenicity, Category 1A
Aspiration Hazard, Category 1

Physical:
Flammable Liquids, Category 3

GHS LABEL

Flame Exclamation mark Health hazard

SIGNAL WORD: DANGER

HAZARD STATEMENTS
H226: Flammable liquid and vapour.
H372: Causes damage to organs through prolonged or repeated exposure
H304: May be fatal if swallowed and enters airways.
H350: May cause cancer.

PRECAUTIONARY STATEMENTS

Prevention:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P270: Do not eat, drink or smoke when using this product.
P264: Wash ... thoroughly after handling.
Response:
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P308+P313: IF exposed or concerned: Get medical advice/ attention.
P331: Do NOT induce vomiting.

Storage:
P405: Store locked up.

Disposal:
P501: Dispose of contents/container in accordance with local/national regulations.

POTENTIAL HEALTH EFFECTS

EYES: Contact causes eye irritation.

SKIN: Moderate irritation and dryness. Prolonged or repeated exposure may result in sensitization.

INGESTION: Harmful if swallowed

INHALATION: Headache, nausea, and irritation to the nose and throat. Prolonged or repeated exposure may cause asthma.

MEDICAL CONDITIONS AGGRAVATED: Asthma and other respiratory disorders (bronchitis, emphysema, and bronchial hypereactivity), skin allergies and eczema.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>asphalt (cutback)</td>
<td>40 - 50</td>
<td>8052-42-4</td>
</tr>
<tr>
<td>Stoddard Solvent</td>
<td>20 - 30</td>
<td>8052-41-3</td>
</tr>
<tr>
<td>Cellulose</td>
<td>2.5 - 10</td>
<td>9004-34-6</td>
</tr>
<tr>
<td>palygorskite (attapulgite) (long fibres, &gt; 5 micrometers)</td>
<td>3 - 10</td>
<td>12174-11-7</td>
</tr>
<tr>
<td>Calcium Carbonate (limestone)</td>
<td>10 - 20</td>
<td>1317-65-3</td>
</tr>
<tr>
<td>Kaolin</td>
<td>0 - 10</td>
<td>1332-58-7</td>
</tr>
<tr>
<td>nonane</td>
<td>0 - 10</td>
<td>111-84-2</td>
</tr>
<tr>
<td>Silica, quartz</td>
<td>0 - 10</td>
<td>14808-60-7</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

EYES: Check for and remove all contact lenses. Flush eyes immediately with water or physiological saline for at least 15 minutes while lifting upper and lower lids. Do not use eye ointment. Seek medical attention.

SKIN: Wash contact area thoroughly with soap and water. Remove contaminated clothing. Launder before reuse. Seek medical attention if erythema develops.

INGESTION: If swallowed, do not induce vomiting. Give large quantities of water. Seek medical attention immediately. Never give anything by mouth to an unconscious person.

INHALATION: If difficulty breathing, move to fresh air once. Apply artificial respiration if breathing has stopped. Seek medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes pain, redness and tearing.

SKIN: Contact causes skin irritation.

INGESTION: Ingestion of large amounts may cause coma or death.

INHALATION: Inhalation may cause dizziness, stupor, unconsciousness, central nervous system depression, weakness, vomiting, drowsiness, blurred vision, headache and nausea.

CHRONIC EFFECTS: Prolonged exposure may cause chemical burns, allergic skin reactions and dermatitis. May have effects on nerve fibers in the kidney and liver.

5. FIRE FIGHTING MEASURES
FLAMMABLE CLASS: Flammable

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand, earth, and steam.

HAZARDOUS COMBUSTION PRODUCTS: Combustion products may be toxic.

FIRE FIGHTING PROCEDURES: Water may cause fire to spread. Water may be used to cool exposed containers to prevent pressure build up. Wear self-contained breathing apparatus with a full facepiece operated in pressure demand or other positive pressure mode when fighting fires.

FIRE FIGHTING EQUIPMENT: Toxic fumes will be evolved when this material is involved in a fire. Self-contained breathing apparatus should be available for fire fighters.

FIRE EXPLOSION: Containers may explode in heat of fire; cool containers with water. Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant from material handling point.

SENSITIVE TO STATIC DISCHARGE: Sensitive to static discharge.

SENSITIVITY TO IMPACT: Sensitive to mechanical impact

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic, unknown organic compounds, carbon dioxide and carbon monoxide during combustion.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL:
Take immediate steps to stop and contain the spill. Use non-sparking tools to shovel up and place in closed container. Caution should be exercised regarding personnel safety and exposure to the spilled material. Eliminate possible sources of ignition. Minimize skin contact and avoid breathing vapors. Ventilate confined spaces. Keep products out of sewers and waterways by diking or impounding. Advise authorities if product has entered sewers or waterways. Assure conformity with all applicable government regulations. Dispose of in an approved facility.

ENVIRONMENTAL PRECAUTIONS
WATER SPILL: May be dangerous if it enters water intakes. Notify Local health and Pollution control officials. Notify operators of nearby water intakes.
Asphalt can have disastrous effects on bottom life.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin, and clothing. For industrial use only! Harmful if inhaled. Do not take internally. May cause irritation. Do not eat, drink or smoke when using this product. Wear chemical splash goggles, gloves and protective clothing. Avoid high ambient temperatures and humidity. Wash thoroughly after handling.

HANDLING: Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Do not create a dust cloud by using a brush or compressed air. Take precautionary measures against static discharge. All metal parts of the mixing and processing equipments must be grounded. Ensure all equipment is grounded before transfer operations.

STORAGE: Store in a cool, dry place.
Keep container closed when not in use.
Store away from direct heat and flame.
Keep away from food and drinking water.
Store out of direct sunlight.
DO NOT SMOKE where product is used or stored.
Store in a well-ventilated place.
Always mix well before using.
Store away from combustible and incompatible materials.
Ground containers when transferring materials.
Remove all sources of ignition or sparks from area.
Empty containers may have residue and flammable vapors. Do not expose to head, cut, weld, or puncture empty container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
### EXPOSURE GUIDELINES

#### OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Type</th>
<th>ppm</th>
<th>mg/m³</th>
</tr>
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<tbody>
<tr>
<td>asphalt (cutback)</td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>100</td>
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<td></td>
<td>ACGIH TLV</td>
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<td>Supplier OEL</td>
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<td>NL</td>
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<td>Stoddard Solvent</td>
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<td>15T 5R</td>
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<td>ACGIH TLV</td>
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<td>10</td>
</tr>
<tr>
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<td>0.5</td>
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<tr>
<td>nonane</td>
<td>ACGIH TLV</td>
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<td>200</td>
</tr>
<tr>
<td>Silica, quartz</td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>0.05</td>
</tr>
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</table>

#### ENGINEERING CONTROLS:
Sufficient ventilation pattern and volume to maintain contaminant levels below recommended exposure limits. Solvent vapors are heavier than air and collect in low lying areas. Provide sufficient ventilation to prevent flammable vapor/air mixtures from accumulating. Spark-proof and explosion-proof equipment must be used. A face velocity of 60 fpm is recommended for fans.

#### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Splashproof, chemical resistant safety goggles or face shield. Eye bath nearby. Contact lenses should not be worn.

**SKIN:** Impervious gloves, neoprene, or other suitable long sleeved and legged clothing. Launder clothing before reuse.

**RESPIRATORY:** No special requirements under ordinary conditions of use and with adequate ventilation. Self contained breathing apparatus recommended when used in small enclosed areas. Use NIOSH approved respirator with organic vapor cartridge if airborne levels exceed PELs and in emergency situations (e.g. a large spill). If the TLV of any component is exceeded use appropriate respiratory protection or ventilate in accordance with OSH Regulation 29 CFR Part 1910.

**WORK HYGIENIC PRACTICES:** Wash contact area thoroughly with soap and water. Remove contaminated clothing. Launder before reuse. Seek medical attention if erythema develops.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**ODOR:** Characteristic Asphalt odor

**ODOR THRESHOLD:** Not Available

**APPEARANCE:** Liquid

**COLOR:** Black

**pH:** Not Established

**PERCENT VOLATILE:** 25 - 45

**FLASH POINT AND METHOD:** (105°F)
FLAMMABLE LIMITS: 0.9% to 6.0%
AUTOIGNITION TEMPERATURE: Not Established
VAPOR PRESSURE: 3 mm Hg at (100°F)
VAPOR DENSITY: Heavier than air.
BOILING POINT: > (300°F)
MELTING POINT: Not Established
SOLUBILITY IN WATER: Insoluble
EVAPORATION RATE: Slower than ether.
SPECIFIC GRAVITY: 1.05
VISCOSITY #1: 120000 to 190000 Centipoise

10. STABILITY AND REACTIVITY

REACTIVITY: Yes
HAZARDOUS POLYMERIZATION: None
STABILITY: Stable under normal conditions of use and storage.
CONDITIONS TO AVOID: Heat, sparks, static electricity, and open flames.
HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic, unknown organic compounds, carbon dioxide and carbon monoxide during combustion.
INCOMPATIBLE MATERIALS: Strong Oxidizing or Reducing agents

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY
DERMAL LD₅₀: No data is available on the product itself.
Notes: Components:
Asphalt TDLₐ 130g/kg (mouse) Skin, carcinogenic effects
TDLₐ 12g/kg (mouse) Intramuscular, Neoplastic effects
ORAL LD₅₀: 5 - 15 g/kg
INHALATION LC₅₀: No data is available on the product itself.
SERIOUS EYE DAMAGE/IRRITATION: Eye, Skin and Inhalation Irritant.
RESPIRATORY OR SKIN SENSITISATION: Skin and Respiratory sensitizer.
GERM CELL MUTAGENICITY: No Data Available
CARCINOGENICITY
IARC: Silica is listed as having sufficient evidence to be a carcinogen in humans and in experimental animals, for the carcinogenicity of quartz and cristobalite. The overall IARC evaluation was that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (group 1).
REPRODUCTIVE TOXICITY: No Data Available

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: May be dangerous if it enters water intakes. Notify Local health and Pollution control officials. Notify operators of nearby water intakes.

Asphalt can have disastrous effects on bottom life.
ECOTOXICOLOGICAL INFORMATION: Effect of low concentrations on aquatic life is unknown.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Waste must be disposed of in accordance with federal, state, and local environmental control regulations.
EMPTY CONTAINER: Empty containers must be handled with care due to product residue. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to hear, flame, sparks, static electricity, or other sources of ignition. They may
explode and cause injury or death. Empty drums should be completely drained (less than one inch of residue), properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not Regulated

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

Flammable
Liquid

R2: Risk of explosion by shock, friction, fire or other sources of ignition.
R10: Flammable.
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
R36/37/38: Irritating to eyes, respiratory system and skin.
S15: Keep away from heat.
S16: Keep away from sources of ignition — No smoking.
S17: Keep away from combustible material.
S21: When using do not smoke.
S24/25: Avoid contact with skin and eyes.
S36: Wear suitable protective clothing.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)


FIRE: Yes PRESSURE GENERATING: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

313 REPORTABLE INGREDIENTS: There are no listed chemicals above detection limits in this compound.

TITLE III NOTES: None above detection limits.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

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TSCA STATUS: Components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CALIFORNIA PROPOSITION 65: Known to the State of California to cause cancer or reproductive toxicity and subject to warning and discharge requirements under the “Safe Drinking Act of 1986”.

It has not been determined and cannot be ascertained that this product would not expose users to the listed chemicals at the very low level prescribed in the regulations. Therefore, it is the user’s responsibility to determine if the percent of the hazardous / carcinogenic ingredients listed elsewhere in the SDS comply with State of California regulations.
CLEAN WATER ACT: This product does not contain any listed Priority Pollutants.

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION

Flammable  Liquid
Toxic

R2: Risk of explosion by shock, friction, fire or other sources of ignition.
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WHMIS CLASS: Class B, Division 2, Flammable Liquid.
   Class D, Division 2, Subdivision B: Materials cause other toxic effects, toxic material.

DOMESTIC SUBSTANCE LIST (INVENTORY): Components included on inventory

16. OTHER INFORMATION

PREPARED BY: John A Kozak  Date Prepared: 04/12/2018

HMIS RATING

| HEALTH   | 2 |
| FLAMMABILITY | 2 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | G |