MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Modified Bituminous Cement
Item Number: 5104
Date: December 3, 2002
Chemical Name: Mixture of asphalt, mineral spirits, polymer, filler, and cellulose fibers
Comparable Products: The Brewer Company
Company Information: 30060 Lakeland Blvd.
Wickliffe, OH 44092
Emergency Phone: CHEMTREC 800-424-9300 24 HOURS
General Information 800-394-0086

2. COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS NO.</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum asphalt</td>
<td>8052-42-4</td>
<td>60 ± 5</td>
</tr>
<tr>
<td>Fillers &amp; fibers</td>
<td>mixture</td>
<td>20 ± 5</td>
</tr>
<tr>
<td>Mineral spirits</td>
<td>64742-88-7</td>
<td>10 ± 5</td>
</tr>
<tr>
<td>Aromatic Solvent</td>
<td>64742-85-6</td>
<td>10 ± 5</td>
</tr>
<tr>
<td>Styrene butadiene polymer</td>
<td>9002-55-8</td>
<td>5 ± 2</td>
</tr>
</tbody>
</table>

Note: The above components and their percentages are provided for health and safety purposes, ONLY. This document should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
Appearance and odor: Black, thick mastic with a mild hydrocarbon odor
WARNING STATEMENTS: COMBUSTIBLE, HARMFUL OR FATAL IF SWALLOWED, SKIN IRRITANT
POTENTIAL HEALTH EFFECTS:
Likely Routes of Exposure:
EYE CONTACT: Conjunctivitis, irritation, tearing burning.
SKIN CONTACT: Irritation or inflammation. Allergic skin reactions may occur. Dermatitis.
INHALATION: Irritation to mucous membranes and respiratory tract, nausea, dizziness, and headache.
INGESTION: Unlikely route of entry. 3-5 oz. may be fatal.
Refer to Section 11 for toxicological information.

4. FIRST AID MEASURES

IF IN EYES: Immediately flush with large amounts of potable water. Eye lids should be held away the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
IF ON SKIN: Remove contaminated clothing and wash with soap and water.
IF INHALED: Remove affected person from source of exposure. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, give oxygen. Get medical attention.
IF INGESTED: Do not induce vomiting – aspiration hazard. If spontaneous vomiting occurs, monitor for breathing difficulty. Get immediate medical attention. 3-5 ounces may be fatal.
5. **FIRE FIGHTING MEASURES**

FLASH POINT: > 105 °F Tag Closed Cup
LEL – 0.9%  UEL 6.7%

HAZARDOUS PRODUCTS OF COMBUSTIONS: H₂S, CO, CO₂ and SOX

EXTINGUISHING MEDIA: Foam CO₂ or dry chemical extinguishers.
Use bunker gear and self contained breathing apparatus. There is a potential for containers to rupture violently in fires. Vapors from product may explode if ignited in a confined space.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not direct water on substance. Water and foam may cause frothing. Treat as a fuel fire.

6. **ACCIDENTAL RELEASE MEASURES**

If your facility or operation has an "oil or hazardous substance contingency plan", activate the procedure. Take immediate steps to stop and contain the spill.
Shut off all sources of ignition.
- Keep people away.
- Eliminate sources of ignition.
- Recover free product, add limestone, earth, or other suitable absorbents.
- Minimize skin contact and avoid breathing vapors.
- Ventilate confined spaces.
- Keep product out of sewers and waterways by diking or impounding.
- Advise authorities if product has entered sewers, waterways or extensive land areas.
- Assure conformity with all applicable government regulations.
- Dispose of in an approved facility, see Section 13, Disposal Considerations.

7. **HANDLING AND STORAGE**

HANDLING: Keep containers cool, dry and away from sources of ignition. Use this product with adequate ventilation. Material is COMBUSTIBLE. Material requires electrical grounding during material transfer process to prevent fire or explosion risk from static accumulation and discharge. All electrical equipment in storage and handling areas should be installed per NFPA requirements.

STORAGE: Keep containers tightly closed when not in use. DO NOT STORE NEAR HEAT, SPARKS, FLAME, OTHER SOURCES OF IGNITION OR STRONG OXIDIZERS.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

EYE PROTECTION: Wear chemical splash goggles (ANSI Z87.1) or safety glasses when working with or transferring this product. DO NOT WEAR CONTACT LENSES IN THE PRESENCE OF THIS MATERIAL UNLESS SPLASH GOGGLES ARE WORN.

SKIN PROTECTION: Use chemical resistant gloves, to avoid prolonged or repeated skin contact.

RESPIRATORY PROTECTION: Use NIOSH or MSHA approved respiratory protective equipment when airborne exposure limits are exceeded.

VENTILATION: Ventilation may be used to reduce airborne concentrations. If ventilation cannot reduce airborne concentrations below acceptable limits, appropriate respiratory protection should be used.

AIRBORNE EXPOSURE LIMITS: OSHA PEL  ACGIH TLV

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral spirits</td>
<td>100 ppm</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Aromatic solvent</td>
<td>100 ppm</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

Note: All pigments, fillers, fibers and extenders in this product are totally encapsulated and do not pose a respirable dust hazard during installation and use of this product.

Components referred to herein, may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be use.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMICAL FORMULA</td>
<td>Not applicable, mixture</td>
</tr>
<tr>
<td>APPEARANCE</td>
<td>Black thick paste like mastic</td>
</tr>
<tr>
<td>ODOR</td>
<td>Mild hydrocarbon odor</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>MELTING POINT (°F)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>DENSITY (lb./gal)</td>
<td>Greater than 8.4</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>Less than 0.5%</td>
</tr>
</tbody>
</table>

**NOTE:** These physical data are typical values based on material testing, but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>STABILITY</td>
<td>Stable</td>
</tr>
<tr>
<td>MATERIALS TO AVOID</td>
<td>Strong oxidizers, heat, spark or open flame</td>
</tr>
<tr>
<td>HAZARDOUS DECOMPOSITION PRODUCTS</td>
<td>Carbon monoxide, carbon dioxide, hydrogen sulfide and sulfur dioxide</td>
</tr>
<tr>
<td>HAZARDOUS POLYMERIZATION</td>
<td>Will not occur</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

- Oral – rat LD50 (mg/kg): No data available
- Dermal – rabbit LD50 (mg/kg): No data available
- Eye Irritation – rabbit: No data available
- Skin Irritation – rabbit (24-hr exposure): No data available

12. ECOLOGICAL INFORMATION

This product may cause adverse environmental effects if used improperly or release to the environment through a spill. Employ best management practices to prevent this material from entering storm sewer systems, waterways or otherwise impacting plant and animal species.

13. DISPOSAL CONSIDERATIONS

Dispose of in an environmentally safe manner and in accordance with governmental regulations. "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. For work on tanks, refer to OSHA regulation ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding or other contemplated operations.

This is "RCRA" regulated hazardous waste [D001 Ignitable per 40 CFR 260.21] and must be disposed in a permitted facility. Containers are hazardous waste if not emptied completely (less than 1 inch of residue).

The transportation, storage, treatment and dispose of this waste must be conducted in accordance with all applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.
US DOT: Non-bulk packages are exempt from DOT HM-181 shipping requirements.
CANADIAN TDG: Not determined

15. REGULATORY INFORMATION

TSCA INVENTORY: Not determined
DSL INVENTORY: Not determined
WHMIS CLASSIFICATION: Not determined

SARA HAZARD NOTIFICATION:
Hazardous Categories Under Title III Rules (40 CFR 370): Not applicable
Section 302 Extremely Hazardous Substances: Not applicable
Section 313 Toxic Chemical(s): Not applicable

CERCLA REPORTABLE QUANTITY: Component % by Wt.
Not applicable

CA Proposition 65 Warning: This product may contain chemicals known to the State of California to cause cancer, birth defects, and/or other reproductive harm.

Refer to Section 11 for OSHA/HPA Hazardous Chemical(s) and Section 13 for RCRA classification.

16. OTHER INFORMATION

This material has been defined as a hazardous chemical under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested NFPA¹ Rating</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Suggested HMIS¹ Rating</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Reason for revision: Updated format Supersedes MSDS Dated: January 4, 2000

The information and recommendations contained herein are to the best of THE BREWER COMPANY’S knowledge and belief, accurate and reliable as of the date issued. THE BREWER COMPANY does not warrant or guarantee their accuracy or reliability, and THE BREWER COMPANY shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the users consideration and examination, and it is the user’s responsibility to satisfy itself that they are suitable and complete for its particular use. It is also the users responsibility to make certain that it is relying upon the most recent, updated, information and recommendations available from THE BREWER COMPANY.

The Environmental Information included, as well as the Hazardous Material Identification System (HMIS) and National Fire Protection Association (NFPA) ratings, have been included by THE BREWER COMPANY in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with THE BREWER COMPANY’S interpretation of the available data.

For Other Product Information Contact:

THE BREWER COMPANY
30060 Lakeland Blvd.
Wickliffe, OH 44092

TELEPHONE: 440/944-3800 FAX: 440/944-1492

¹Hazard Ratings: least = 0; slight = 1; moderate = 2; high = 3; extreme = 4. Based upon NPCA guidelines.