## 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Bix TSP Substitute Concentrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Name:</td>
<td>W. M. Barr</td>
</tr>
<tr>
<td>Phone Number:</td>
<td>(901)775-0100</td>
</tr>
<tr>
<td>Web site address:</td>
<td><a href="http://www.wmbarr.com">www.wmbarr.com</a></td>
</tr>
<tr>
<td>Emergency Contact:</td>
<td>3E 24 Hour Emergency Contact</td>
</tr>
<tr>
<td>Information:</td>
<td>W.M. Barr Customer Service</td>
</tr>
<tr>
<td>Phone Number:</td>
<td>(800)451-8346</td>
</tr>
<tr>
<td>Phone Number:</td>
<td>(800)398-3892</td>
</tr>
<tr>
<td>Intended Use:</td>
<td>Cleaning and Surface Preparation</td>
</tr>
<tr>
<td>Synonyms:</td>
<td>QBTS18002</td>
</tr>
</tbody>
</table>

### Additional Information
This product is regulated by the United States Consumer Product Safety Commission and is subject to certain labeling requirements under the Federal Hazardous Substances Act. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS). The product label also includes other important information, including directions for use, and should always be read in its entirety prior to using the product.

## 2. HAZARDS IDENTIFICATION

**Skin Corrosion/Irritation, Category 1A-1C**

**Serious Eye Damage/Eye Irritation, Category 1**

### GHS Signal Word:
Danger

### GHS Hazard Phrases:
- H314: Causes severe skin burns and eye damage.
- H318: Causes serious eye damage.

### GHS Precaution Phrases:
- P260: Do not breathe gas/mist/vapors/spray.
- P264: Wash hands thoroughly after handling.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

### GHS Response Phrases:
- P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+351+338: IF IN YES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTER or doctor/physician.
- P321: Specific treatment see label.
- P363: Wash contaminated clothing before reuse.

### GHS Storage and Disposal Phrases:
- P405: Store locked up.
- P501: Dispose of contents/container according to local, state and federal regulations.
Bix TSP Substitute Concentrate

SAFETY DATA SHEET

Hazard Rating System:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL</th>
<th>PPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

HMIS:

NFPA:

OSHA Regulatory Status: This material is classified as hazardous under OSHA regulations.

Potential Health Effects (Acute and Chronic):

- **Health Rating:**
  - Acute: 1
  - Chronic: 0

- **Flammability:** 0
- **Instability:** 0
- **Physical:** 0
- **PPE:** X

- **Special Hazard:**

**Health Rating:**

**INHALATION ACUTE EXPOSURE EFFECTS:**
May cause dizziness; headache; irritation of the upper respiratory tract; Effects on animals have been reported to include the blood (hemolysis) and secondary effects on the kidney and liver.

**SKIN CONTACT ACUTE EXPOSURE EFFECTS:**
May cause irritation, itching, redness; swelling; inflammation; discomfort or pain; possible burns. May cause more severe effects on covered skin.

**EYE CONTACT ACUTE EXPOSURE EFFECTS:**
This material is an eye irritant. May cause irritation; redness and swelling of the conjunctiva; excess blinking and tear production; possible burns, eye damage, blindness.

**INGESTION ACUTE EXPOSURE EFFECTS:**
Moderately toxic if ingested. Small amounts swallowed incidentally are not likely to cause injury, however, larger amounts may cause injury. Animal effects are seen on the blood, kidney and liver. Ingestion of significant quantities may result in red blood cell hemolysis, central nervous system and kidney effects. May cause irritation, burns, nausea, and vomiting.

**CHRONIC EXPOSURE EFFECTS:**
Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. May cause skin irritation; liver damage; kidney damage; blood disorders; eye irritation. Prolonged skin contact may cause redness; swelling and possible skin destruction.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Concentration</th>
<th>RTECS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>111-76-2</td>
<td>Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)}</td>
<td>&lt;10.0 %</td>
<td>KJ8575000</td>
</tr>
<tr>
<td>1300-72-7</td>
<td>Sodium xylenesulfonate</td>
<td>1.0 -5.0 %</td>
<td>ZE5100000</td>
</tr>
<tr>
<td>6834-92-0</td>
<td>Silicic acid (H2SiO3), Disodium salt {Sodium metasilicate (pentahydrate)}</td>
<td>1.0 -5.0 %</td>
<td>VV9275000</td>
</tr>
</tbody>
</table>

**Additional Chemical Information:**
Specific percentage of composition is being withheld as a trade secret.
4. FIRST AID MEASURES

Emergency and First Aid Procedures:

Skin:
Remove contaminated clothing. Immediately wash skin thoroughly with large amounts of water and mild soap, if available. Seek medical attention if irritation develops or persists.

Eyes:
Immediately begin to flush eyes with water, remove any contact lens. Continue to flush the eyes for at least 15 minutes. Seek medical attention.

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Ingestion:
If swallowed, do NOT induce vomiting. Seek immediate medical attention. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Give large amounts of water. If vomiting occurs, keep the airway clear. If unconscious, place the person on their side.

Signs and Symptoms Of Exposure:

See Potential Health Effects.

Note to Physician:
The absence of visible signs or symptoms of burns does not readily exclude the presence of actual tissue damage.

5. FIRE FIGHTING MEASURES

Flash Pt: No data.
Explosive Limits: LEL: No data. UEL: No data.
Autoignition Pt: No data.

Suitable Extinguishing Media: Non-combustible liquid - use extinguishing media for underlying cause of fire.

Unsuitable Extinguishing Media: None known.

Fire Fighting Instructions:
Use NIOSH/MSHA approved positive pressure self-contained breathing apparatus when any material is involved in a fire.

Flammable Properties and Hazards:
Flashpoint: No flash. Will not burn.

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled:
Isolate the immediate area. Prevent unauthorized entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to compatible containers. For large spills, dike ahead of the spill.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling:
Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Precautions To Be Taken in Storing:
Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.
# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>111-76-2</td>
<td>Ethanol, 2-Butoxy- (Ethylene glycol n-butyl ether, (a glycol ether))</td>
<td>PEL: 50 ppm</td>
<td>TLV: 20 ppm</td>
<td>No data.</td>
</tr>
<tr>
<td>1300-72-7</td>
<td>Sodium xylenesulfonate</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>6834-92-0</td>
<td>Silicic acid (H2SiO3), Disodium salt {Sodium metasilicate (pentahydrate)}</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

**Respiratory Equipment (Specify Type):**

A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

If the work area is not properly ventilated to keep airborne levels below their exposure limits, you must use a properly fitted and maintained NIOSH approved respirator for organic vapors. A dust mask does not provide protection against vapors.

**Eye Protection:**

Safety glasses, chemical goggles, or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.

**Protective Gloves:**

Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile rubber, neoprene, and natural rubber may provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

**Other Protective Clothing:**

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

**Engineering Controls (Ventilation etc.):**

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate, such as basements, bathrooms or small enclosed areas. Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- STOP -- ventilation is inadequate. Leave area immediately and move to fresh air.

**Work/Hygienic/Maintenance Practices:**

Wash hands thoroughly after use and before eating, drinking, or smoking. Do not eat, drink, or smoke in the work area. Discard any clothing or other protective equipment that cannot be decontaminated.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical States:</td>
<td>[   ] Gas [ X ] Liquid [   ] Solid</td>
</tr>
<tr>
<td>Appearance and Odor:</td>
<td>Blue, Free and Clear</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>~ 32.00 F</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>~ 212.00 F</td>
</tr>
<tr>
<td>Autoignition Pt:</td>
<td>No data.</td>
</tr>
<tr>
<td>Flash Pt:</td>
<td>No data.</td>
</tr>
<tr>
<td>Explosive Limits:</td>
<td>LEL: No data. UEL: No data.</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>~ 32.00 F</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>~ 212.00 F</td>
</tr>
<tr>
<td>Autoignition Pt:</td>
<td>No data.</td>
</tr>
<tr>
<td>Flash Pt:</td>
<td>No data.</td>
</tr>
<tr>
<td>Specific Gravity (Water = 1):</td>
<td>1.03</td>
</tr>
<tr>
<td>Density:</td>
<td>8.565 LB/GL</td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg):</td>
<td>&gt; 1 MM HG</td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1):</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Complete</td>
</tr>
<tr>
<td>pH:</td>
<td>12.5 - 13.5</td>
</tr>
<tr>
<td>Percent Volatile:</td>
<td>93.0 % by weight.</td>
</tr>
<tr>
<td>VOC / Volume:</td>
<td>72.0000 G/L</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

| Stability:                         | Unstable [   ] Stable [ X ] |
| Conditions To Avoid - Instability: | No data available.          |
| Incompatibility - Materials To Avoid: | Strong oxidizers and acids. Avoid prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc, or other alkali sensitive metals or alloys. |
| Hazardous Decomposition or Byproducts: | Carbon dioxide and carbon monoxide |
| Possibility of Hazardous Reactions: | Will occur [   ] Will not occur [ X ] |
| Conditions To Avoid - Hazardous Reactions: | No data available. |
11. TOXICOLOGICAL INFORMATION

Toxicological Information: This product has not been tested as a whole. Refer to section 2 for acute and chronic health effects.

CAS# 111-76-2:
Acute toxicity, LC50, Inhalation, Rat, 450.0 PPM, 4 H.
Result:
Behavioral: Ataxia.
Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

Acute toxicity, LD50, Skin, Species: Rabbit, 220.0 MG/KG.
Result:
Effects on Embryo or Fetus: Extra embryonic structures (e.g., placenta, umbilical cord).
Effects on Embryo or Fetus: Other effects to embryo.
Specific Developmental Abnormalities: Musculoskeletal system.
- Dow Chemical Company Reports., Dow Chemical USA, Health and Environment Research, Toxicology Research Lab, Midland, MI 48640, Vol/p/yr: MSD-46,

Acute toxicity, LD50, Oral, Rat, 250.0 mg/kg.
Result:
Lungs, Thorax, or Respiration: Changes in pulmonary vascular resistance.

Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG, Severe.
Result:
Effects on Newborn: Apgar score (human only).
Effects on Newborn: Other neonatal measures or effects.
Effects on Newborn: Drug dependency.

CAS# 6834-92-0:
Standard Draize Test, Skin, Species: Guinea pig, 250.0 MG, 24 H, Moderate.
Result:
Effects on Fertility: Other measures of fertility.

IARC 2B - Possibly Carcinogenic to Humans
ACGIH A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>111-76-2</td>
<td>Ethanol, 2-Butoxy- (Ethylene glycol n-butyl ether, (a glycol ether))</td>
<td>n.a.</td>
<td>3</td>
<td>A3</td>
<td>n.a.</td>
</tr>
<tr>
<td>1300-72-7</td>
<td>Sodium xylenesulfonate</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>6834-92-0</td>
<td>Silicic acid (H2SiO3), Disodium salt  (Sodium metasilicate (pentahydrate))</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
Bix TSP Substitute Concentrate

12. ECOLOGICAL INFORMATION

General Ecological Information: This product has not been tested as a whole.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with local, state, and federal laws.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Consumer Commodity, ORM-D
DOT Hazard Class: 
UN/NA Number:

Additional Transport Information:

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
<th>S. 313 (TRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>111-76-2</td>
<td>Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)}</td>
<td>No</td>
<td>No</td>
<td>Yes-Cat. N230</td>
</tr>
<tr>
<td>1300-72-7</td>
<td>Sodium xylenesulfonate</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>6834-92-0</td>
<td>Silicic acid (H2SiO3), Disodium salt {Sodium metasilicate (pentahydrate)}</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

This material meets the EPA ‘Hazard Categories’ defined for SARA Title III Sections as indicated:

- [X] Yes [ ] No Acute (immediate) Health Hazard
- [X] Yes [ ] No Chronic (delayed) Health Hazard
- [ ] Yes [X] No Fire Hazard
- [ ] Yes [X] No Sudden Release of Pressure Hazard
- [ ] Yes [X] No Reactive Hazard

Other US EPA or State Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Other US EPA or State Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>111-76-2</td>
<td>Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)}</td>
<td>CAA HAP, ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No</td>
</tr>
<tr>
<td>1300-72-7</td>
<td>Sodium xylenesulfonate</td>
<td>CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No</td>
</tr>
<tr>
<td>6834-92-0</td>
<td>Silicic acid (H2SiO3), Disodium salt {Sodium metasilicate (pentahydrate)}</td>
<td>CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

Revision Date: 05/09/2015
Preparer Name: W.M. Barr EHS Dept (901)775-0100
Additional Information About This Product: No data available.

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these...
materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.