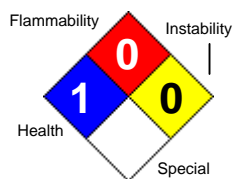


MATERIAL SAFETY DATA SHEET

Bix TSP Substitute Concentrate

Page: 1



Printed: 12/11/2008
Revision: 12/11/2008
Supersedes Revision: 11/17/2008
Date Created: 11/17/2008

1. Product and Company Identification

Product Code: 239.1
Product Name: Bix TSP Substitute Concentrate
Manufacturer Information
Company Name: W. M. Barr
2105 Channel Avenue
Memphis, TN 38113
Phone Number: (901)775-0100
Emergency Contact: 3E 24 Hour Emergency Contact (800)451-8346
Information: W.M. Barr Customer Service (800)398-3892
Web site address: www.wmbarr.com
Preparer Name: W.M. Barr EHS Dept (901)775-0100
Synonyms
QBTS18002

2. Composition/Information on Ingredients

| Hazardous Components (Chemical Name) | CAS # | Concentration | OSHA PEL | ACGIH TLV | Other Limits |
|---|-----------|---------------|-----------|------------|--------------|
| 1. Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)} | 111-76-2 | <10.0 % | 50 ppm | 20 ppm | No data. |
| 2. Sodium xylenesulfonate | 1300-72-7 | 1.0 -5.0 % | No data. | No data. | No data. |
| 3. Sodium Metasilicate (Silicic acid (H ₂ SiO ₃), Disodium salt) | 6834-92-0 | 1.0 -5.0 % | No data. | No data. | No data. |
| Hazardous Components (Chemical Name) | RTECS # | OSHA STEL | OSHA CEIL | ACGIH STEL | ACGIH CEIL |
| 1. Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)} | KJ8575000 | No data. | No data. | No data. | No data. |
| 2. Sodium xylenesulfonate | ZE5100000 | No data. | No data. | No data. | No data. |
| 3. Sodium Metasilicate (Silicic acid (H ₂ SiO ₃), Disodium salt) | VV9275000 | No data. | No data. | No data. | No data. |

3. Hazards Identification

Emergency Overview

Harmful if swallowed or inhaled. Causes eye, skin, and respiratory tract irritation.

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

Potential Health Effects (Acute and Chronic)

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.

Signs and Symptoms Of Exposure

See Potential Health Effects.

Routes of Entry: Inhalation, Skin

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.

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.

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.

Hazardous Combustion Products

Carbon dioxide, carbon monoxide

Extinguishing Media

Non-combustible liquid - use extinguishing media for underlying cause of fire.

Unsuitable Extinguishing Media

None known.

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**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

Nitrile, neoprene, natural rubber

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.

Bix TSP Substitute Concentrate

Printed: 12/11/2008

Revision: 12/11/2008

Supersedes Revision: 11/17/2008

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

| | | | |
|--|-------------------|---------------|-----------|
| Physical States: | [] Gas | [X] Liquid | [] Solid |
| Melting Point: | ~ 32.00 F | | |
| Boiling Point: | ~ 212.00 F | | |
| Autoignition Pt: | No data. | | |
| Flash Pt: | No data. | | |
| Explosive Limits: | LEL: No data. | UEL: No data. | |
| Specific Gravity (Water = 1): | 1.03 | | |
| Density: | 8.565 LB/GL | | |
| Vapor Pressure (vs. Air or mm Hg): | > 1 MM HG | | |
| Vapor Density (vs. Air = 1): | < 1 | | |
| Evaporation Rate (vs Butyl Acetate=1): | < 1 | | |
| Solubility in Water: | Complete | | |
| Percent Volatile: | 93.0 % by weight. | | |
| VOC / Volume: | 72.0000 G/L | | |
| Corrosion Rate: | No data. | | |
| pH: | 12.5 - 13.5 | | |
| Appearance and Odor | | | |

Blue, Free and Clear

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

Hazardous Polymerization: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Polymerization

No data available.

11. Toxicological Information

2-Butoxyethanol:

LD50 Rat oral 1.48 g/kg

LD50 Mouse oral 1.2 g/kg

LD50 Rabbit oral 0.32 g/kg

LD50 Guinea pig oral 1.2 g/kg

LD50 Rabbit dermal 400 mg/kg

LD50 Rat (male) oral 560-3000 mg/kg

LD50 Mouse (male) oral 1519 mg/kg (fasting)

LC50 Rat (male) inhalation 486 ppm/4 hr

LC50 Rat (female) inhalation 450 ppm/4 hr

LC50 Mouse inhalation 700 ppm/7 hr

LD50 Rat (female) ip 550 mg/kg

LD50 Rat (female) iv 340 mg/kg

MATERIAL SAFETY DATA SHEET

Bix TSP Substitute Concentrate

Page: 5

Printed: 12/11/2008

Revision: 12/11/2008

Supersedes Revision: 11/17/2008

LD50 Mouse iv 1130 mg/kg
LD50 Rabbit (male) iv 280 mg/kg

Sodium Metasilicate:

LD50 Rat oral 1280 mg/kg

LD50 Mouse oral 2400 mg/kg

Carcinogenicity/Other Information

No data available.

| Hazardous Components (Chemical Name) | CAS # | NTP | IARC | ACGIH | OSHA |
|---|-----------|----------|------|-------|------|
| 1. Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)} | 111-76-2 | Possible | 2B | A3 | No |
| 2. Sodium xylenesulfonate | 1300-72-7 | n.a. | n.a. | n.a. | n.a. |
| 3. Sodium Metasilicate (Silicic acid (H ₂ SiO ₃), Disodium salt) | 6834-92-0 | n.a. | n.a. | n.a. | n.a. |

12. Ecological Information

No data available.

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

Additional Transport Information

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

15. Regulatory Information

US EPA SARA Title III

| Hazardous Components (Chemical Name) | CAS # | Sec.302 (EHS) | Sec.304 RQ | Sec.313 (TRI) | Sec.110 |
|---|-----------|---------------|------------|---------------|---------|
| 1. Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)} | 111-76-2 | No | No | Yes-Cat. N230 | No |
| 2. Sodium xylenesulfonate | 1300-72-7 | No | No | No | No |
| 3. Sodium Metasilicate (Silicic acid (H ₂ SiO ₃), Disodium salt) | 6834-92-0 | No | No | No | No |

US EPA CAA, CWA, TSCA

| Hazardous Components (Chemical Name) | CAS # | EPA CAA | EPA CWA NPDES | EPA TSCA | CA PROP 65 |
|---|-----------|---------|---------------|-----------|------------|
| 1. Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)} | 111-76-2 | HAP | No | Inventory | No |
| 2. Sodium xylenesulfonate | 1300-72-7 | No | No | Inventory | No |
| 3. Sodium Metasilicate (Silicic acid (H ₂ SiO ₃), Disodium salt) | 6834-92-0 | No | No | Inventory | No |

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

Sec.302:

EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. * indicates 10000 LB TPQ if not volatile.

Sec.304:

EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. ** indicates statutory RQ.

Bix TSP Substitute Concentrate

Printed: 12/11/2008

Revision: 12/11/2008

Supersedes Revision: 11/17/2008

Sec.313:

EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.

Sec.110:

EPA SARA 110 Superfund Site Priority Contaminant List

TSCA (Toxic Substances Control Act) Lists:

Inventory:

Chemical Listed in the TSCA Inventory.

5A(2):

Chemical Subject to Significant New Rules (SNURS)

6A:

Commercial Chemical Control Rules

8A:

Toxic Substances Subject To Information Rules on Production

8A CAIR:

Comprehensive Assessment Information Rules - (CAIR)

8A PAIR:

Preliminary Assessment Information Rules - (PAIR)

8C:

Records of Allegations of Significant Adverse Reactions

8D:

Health and Safety Data Reporting Rules

8D TERM:

Health and Safety Data Reporting Rule Terminations

12(b):

Notice of Export

Other Important Lists:

CWA NPDES:

EPA Clean Water Act NPDES Permit Chemical

CAA HAP:

EPA Clean Air Act Hazardous Air Pollutant

CAA ODC:

EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)

CA PROP 65:

California Proposition 65

International Regulatory Lists:

EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

☒ Yes ☐ No Acute (immediate) Health Hazard

☒ Yes ☐ No Chronic (delayed) Health Hazard

☐ Yes ☒ No Fire Hazard

☐ Yes ☒ No Sudden Release of Pressure Hazard

☐ Yes ☒ No Reactive Hazard

16. Other Information

Company Policy or Disclaimer

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.