1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Bulldog Waterborne Adhesion Promoter
Company Name: W. M. Barr
2105 Channel Avenue
Memphis, TN  38113
Phone Number: (901)775-0100

Web site address: www.wmbarr.com
Emergency Contact: 3E  24 Hour Emergency Contact (800)451-8346
Information: W.M. Barr Customer Service (800)398-3892

Intended Use: Paint adhesion.
Synonyms: QWB171, WWB171
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

Danger
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H360: May damage fertility or the unborn child.

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing gas/mist/vapors/spray.
P264: Wash hands thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P281: Use personal protective equipment as required.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313: IF exposed or concerned: Get medical attention/advice.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P333+313: If eye irritation persists, get medical advice/attention.

P403+233: Store container tightly closed in well-ventilated place.
P405: Store locked up.
P501: Dispose of contents/container according to local, state and federal regulations.
This product has not been tested as a whole to determine health effects. The health effects listed below are associated with the individual ingredients listed in Section 3.

EYES:
May cause moderate to severe eye irritation. May cause moderate corneal injury. Effects may include discomfort, pain, tearing, and redness. Effects may be slow to heal. Vapor may cause eye irritation experienced as mild discomfort and redness.

SKIN:
Brief contact may cause slight skin irritation with local redness. Repeated or prolonged exposure may cause irritation. Effects may be more severe on covered skin (under clothing, gloves, etc).

INHALATION:
Excessive exposure may cause irritation to the upper respiratory tract (nose and throat). Symptoms may also include a headache.

INGESTION:
Moderate toxicity if swallowed.

CHRONIC OVEREXPOSURE EFFECTS:
In animals, exposure to 2-butoxyethanol have reported effects on the blood (hemolysis) and secondary effects on the kidney and liver. In humans, red blood cells have been shown to be significantly less sensitive to hemolysis than those of rodents and rabbits.

In long-term animal studies with 2-butoxyethanol, small but statistically significant increases in tumors were observed in mice but not rats. The effects are not believed to be relevant to humans.

2-Butoxyethanol has been toxic to the fetus in lab animals and effects on reproduction have been seen at doses toxic to the mother.

TARGET ORGANS:
Liver, Kidney, Blood, Eyes, Reproduction system

Medical Conditions Generally Aggravated By Exposure:
Respiratory conditions (asthma)

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>25265-77-4</td>
<td>Texanol  {Ester alcohol; 2,2,4-trimethyl-1,3-pentanediol}</td>
<td>&lt; 5.0 %</td>
<td>UF6000000</td>
</tr>
<tr>
<td>872-50-4</td>
<td>N-Methyl-2-pyrrolidone  {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}</td>
<td>&lt; 2.0 %</td>
<td>UY5790000</td>
</tr>
<tr>
<td>111-76-2</td>
<td>Ethanol, 2-Butoxy-  {Ethylene glycol n-butyl ether, (a glycol ether)}</td>
<td>&lt; 2.0 %</td>
<td>KJ8575000</td>
</tr>
</tbody>
</table>

Specific percentage of composition is being withheld as a trade secret.
4. FIRST AID MEASURES

Emergency and First Aid Procedures:

Skin:
Immediately begin washing the skin thoroughly with large amounts of water and mild soap, if available, while removing contaminated clothing. Seek medical attention if irritation persists.

Eyes:
Immediately begin to flush eyes with water, remove any contact lens. Continue to flush the eyes for at least 15 minutes, then seek immediate 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, hospital emergency room, or poison control center immediately. Never give anything by mouth to an unconscious person.

Signs and Symptoms Of Exposure:
See Potential Health Effects.

5. FIRE FIGHTING MEASURES

Flash Pt: NP
Explosive Limits: LEL: na UEL: na
Autoignition Pt: NP

Suitable Extinguishing Media: Water spray, dry powder, carbon dioxide, foam.

Unsuitable Extinguishing Media: None known.

Fire Fighting Instructions:
Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

Flammable Properties and Hazards:
Flashpoint: This material does not exhibit a flashpoint per the Setalight Closed Cup test method.
Material will not support combustion.

Additional Fire Fighting Information
NP = Not applicable

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled:
Isolate the immediate area. Prevent unauthorized entry. Eliminate all sources of ignition in area and downwind of the spill area. Stay upwind, out of low areas, and ventilate closed spaces before entering. All equipment used when handling this product must be grounded or non-sparking. 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.

Avoid breathing of vapors or mist. Avoid contact with eyes and skin.

A source of clean water should be available in or near the work area for flushing of the eyes and skin if contact occurs.

Precautions To Be Taken in Storing:

Store in a cool place in original container and protect from sunlight.

Do not store near flames or at elevated temperatures.

Keep container tightly closed when not in use.

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>
</table>
| 25265-77-4 | Texanol  

(Ester alcohol;  
2,2,4-trimethyl-1,3-penta nediol) | No data. | No data. | No data. |
| 872-50-4 | N-Methyl-2-pyrroldione 

(2-Pyrroldinone, 1-Methyl;-  
1-Methylazacyclopentan-2-one) | No data. | No data. | No data. |
| 111-76-2 | Ethanol, 2-Butoxy-  

(Ethylene glycol  
n-butyl ether,  
(a glycol ether)) | PEL: 50 ppm | TLV: 20 ppm | No data. |

Respiratory Equipment (Specify Type):

For use in areas with inadequate ventilation or fresh air, wear a properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors.

For OSHA controlled work places and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding the appropriate TLV.

A dust mask does not provide protection against vapors.

Eye Protection:

Safety glasses should be worn during normal handling of this material.

Where contact with the eyes or face is likely, a faceshield or chemical splash goggles should be worn to prevent eye contact.

Protective Gloves:

Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile 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.

Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical States:</th>
<th>[ ] Gas</th>
<th>[X] Liquid</th>
<th>[ ] Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and Odor:</td>
<td>Cloudy, clear sticky liquid.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting Point:</td>
<td>32.00 F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>212.00 F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autoignition Pt:</td>
<td>NP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Pt:</td>
<td>NP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive Limits:</td>
<td>LEL: na</td>
<td>UEL: na</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity (Water = 1):</td>
<td>1.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density:</td>
<td>8.40 LB/GL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg):</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1):</td>
<td>&lt; 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Complete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Volatile:</td>
<td>85.0 % by weight.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC / Volume:</td>
<td>&lt;= 540.0000 G/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Physical Information</td>
<td>Max VOC Content: 540 g/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>VOC Coating (VOC Regulatory): 236 g/L = 4.4 % = 1.97 lbs/gal excluding water and exempt solvents (Regulatory or Coatings VOC calculation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>VOC Content: 42 g/L = 4 % (Actual VOC)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

Stability: | Unstable [ ] | Stable [X] |

Conditions To Avoid - Instability: No data available.

Incompatibility - Materials To Avoid: Strong acids, strong oxidizers, mineral acids, bases.

Hazardous Decomposition Or Byproducts: Carbon monoxide, carbon dioxide, aldehydes, ketones, organic acids, chlorine compounds, nitrogen oxides.

Possibility of Hazardous Reactions: Will occur [ ] | Will not occur [X] |

Conditions To Avoid: No data available.
11. TOXICOLOGICAL INFORMATION

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

CAS# 872-50-4:
Reproductive Effects: TDLo, Inhalation, Rat, 116.0 PPM, 6 H, multigenerations.
Result:
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).
- Drug and Chemical Toxicology, Marcel Dekker, 270 Madison Ave., New York, NY 10016, Vol/p/yr: 18,271, 1995

Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG, Moderate.
Result:
Blood: Other hemolysis with or without anemia.
Blood: Other changes.
Biochemical: Metabolism (Intermediary): Other proteins.

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.
This product has not been tested as a whole.

Carcinogenicity/Other Information:
IARC 3: Not Classifiable as to Carcinogenicity in Humans.
ACGIH A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans.
### 12. ECOLOGICAL INFORMATION

General Ecological Information:

This product has not been tested as a whole.

### 13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with applicable local, state, and federal regulations.

### 14. TRANSPORT INFORMATION

**LAND TRANSPORT (US DOT):**

- DOT Proper Shipping Name: Not Regulated.
- DOT Hazard Class: Not Regulated.
- UN/NA Number: Not Regulated.

### 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>25265-77-4</td>
<td>Texanol {Ester alcohol; 2,2,4-trimethyl-1,3-penta nediol}</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>872-50-4</td>
<td>N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<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>
</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>25265-77-4</td>
<td>Texanol {Ester alcohol; 2,2,4-trimethyl-1,3-penta nediol}</td>
<td>CAA HAP,ODC; No; CWA NPDES; No; TSCA: Yes - Inventory; CA PROP.65: No</td>
</tr>
<tr>
<td>872-50-4</td>
<td>N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}</td>
<td>CAA HAP,ODC; No; CWA NPDES; No; TSCA: Yes - Inventory, 4 Test, 12(b); CA PROP.65: Yes</td>
</tr>
<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>
</tbody>
</table>
Regulatory Information Statement: All components of this material are listed on the TSCA Inventory or are exempt.

16. OTHER INFORMATION

Revision Date: 04/20/2015
Preparer Name: W.M. Barr EHS Dept (901)775-0100
Additional Information About This Product: No data available.

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.