MATERIAL SAFETY DATA SHEET

PRODUCT NAME: WATERBASE INK
HMIS CODES: H F R P
PRODUCT CODE: WB 5000 and 5500 Gloss and Flat

====== SECTION 1 MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: T.W. GRAPHICS GROUP
ADDRESS: 3323 S. MALT AVE. COMMERCE, CA 90040
EMERGENCY TELEPHONE: CHEMTREC: 1-800-424-9300
OTHER INFORMATION CALLS: 1-323-721-1400
DATE PREPARED: October 26, 2009
PREPARED BY: Juan R Madrigal
REASON REVISED: UPDATE

====== SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY

VAPOR PRESSURE

<table>
<thead>
<tr>
<th>HAZARDOUS COMPONENTS</th>
<th>CAS #</th>
<th>OSHA-PEL</th>
<th>ACGIH-TLV</th>
<th>MFR-TLV</th>
<th>VAPOR PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOBUTYL ETHER</td>
<td>111-76-2</td>
<td>25 ppm</td>
<td>25 ppm</td>
<td>0.6</td>
<td>68F - &lt;5.0%</td>
</tr>
<tr>
<td>HEXYLENE GLYCOL</td>
<td>107-41-5</td>
<td>25 ppm</td>
<td>25 ppm</td>
<td>0.1</td>
<td>68F - &lt;5.0%</td>
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<tr>
<td>DIMETHYLETHANOLAMINE</td>
<td>9016-45-9</td>
<td>25 ppm</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;5.0%</td>
</tr>
<tr>
<td>SURFACTANT</td>
<td>9016-45-9</td>
<td></td>
<td></td>
<td>N/A</td>
<td>&lt;5.0%</td>
</tr>
<tr>
<td>DIPROPYLENE GLYCOL</td>
<td>025265-718</td>
<td>25 ppm</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;5.0%</td>
</tr>
</tbody>
</table>

+++No toxic chemical (s) subject to the reporting requirements of section 313 of Title III of CFR 372 are present+++.
+ TLV refer to products as such and do not indicate value in the finished ink as printed which represents a smaller percentage considered irritating.

====== SECTION 3 – PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: >212 DEG F
Evaporation Rate: SLOWER THAN ETHER
Solubility in Water: Soluble
Appearance & odor: Milky or colored liquid with mild odor.
Specific Gravity (H2O=1): 1.2
Vapor Density (Air = 1): HEAVIER THAN AIR

====== SECTION 4 – FIRE & EXPLOSION DATA

Flash Point: NONE
Method Used: EPA 1010
Flammable Limits in Air % by Volume: LOWER- 1.2% UPPER- 8.5%
Extinguisher Media: FOAM, ALCOHOL FOAM, DRY CHEMICAL, WATER FOG
Special Fire: WEAR SELF-CONTAINED BREATHING APPARATUS AND
Fighting Procedures: PROTECTIVE CLOTHING TO PROTECT AGAINST HAZARDOUS EFFECTS OF NORMAL COMBUSTION OR OXYGEN DEFICIENCY.

Unusual Fire & Explosion Hazards: WILL NOT SUPPORT COMBUSTION UNLESS THE WATER HAS EVAPORATED.

====== SECTION 5 – PHYSICAL HAZARDS (REACTIVITY DATA)

Stability: Stable under normal conditions. Keep away from heat.
Incompatibility (Materials to Avoid): ISOLATE FROM ACIDIC MATERIALS.
Hazardous Decomposition or Byproducts: Normal combustion products as carbon monoxide, carbon dioxide, or oxides of nitrogen.
Hazardous Polymerization: WILL NOT OCCUR.
SECTION 6 – HEALTH HAZARD

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
NONE CURRENTLY KNOWN.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE
NONE CURRENTLY KNOWN.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
NONE CURRENTLY KNOWN.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
OVEREXPOSURE MAY CAUSE SLIGHT TOXICITY; MAY CAUSE NAUSEA AND NARCOSIS.

HEALTH HAZARD (ACUTE AND CHRONIC)
NONE CURRENTLY KNOWN.


MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
PRE-EXISTING NASAL, EYE, SKIN, OR RESPIRATORY TRACT IRRITATIONS MAY BE AGGRAVATED BY OVEREXPOSURE.

Emergency & First Aid Procedures:
1. Eye Contact: IMMEDIATELY FLUSH EYES W/RUNNING WATER FOR AT LEAST 15 MINUTES WHILE HOLDING THE EYELIDS OPEN. IF IRRITATION PERSISTS, CALL A PHYSICIAN.
2. Skin Contact: WASH SKIN THOROUGHLY W/MILD SOAP & WATER. LAUNDER CONTAMINATED CLOTHING. IF IRRITATION PERSISTS, CALL A DOCTOR.
3. Inhalation: IF THERE ARE ACUTE OR CHRONIC SYMPTOMS, MOVE PERSON TO FRESH AIR, GIVE ARTIFICIAL RESPIRATION, SEEK MEDICAL CARE.

SECTION 7 – SPECIAL PRECAUTIONS & SPILL/LEAK PROCEDURES

Precautions to be taken: STORE & USE IN A WELL-VENTILATED AREA.

In Handling & Storage: DO NOT USE NEAR OPEN FLAME, SPARKS OR HOT SURFACES KEEP CONTAINERS TIGHTLY CLOSED.

In case Material is Released or Spilled: ELIMINATE OPEN FLAMES OR IGNITION IN THE VICINITY OF VAPOR. STOP SOURCE OF LEAK. ABSORB LARGE SPILLS W/ABSORBENT CLAY OR OTHER SUITABLE MATERIALS.

Waste Disposal Methods: FLOCCULATE LIQUID WASTES, DISPOSE OF RESIDUES OBSERVING LOCAL, STATE, & FEDERAL HEALTH, SAFETY & POLLUTION LAWS.
SECTION 8 – SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection: IF EXPOSURE DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS, USE A NIOSH-APPROVED RESPIRATOR, OR AN AIRPURIFYING RESPIRATOR OR AN ATMOSPHERE-SUPPLYING RESPIRATOR FOR ORGANIC VAPORS.

Ventilation: USE ADEQUATE VENTILATION TO KEEP AIRBORNE CONCENTRATION BELOW EXPOSURE STANDARDS.

Protective Gloves: USE NITRILE OR NEOPRENE GLOVES FOR DIRECT CONTACT.

Eye Protection: USE CHEMICAL SAFETY GOGGLES.

Other protective Clothing or Equipment: APRONS, EYEWASH FOUNTAINS & SAFETY SHOWERS ARE RECOMMENDED.

Work / Hygienic Practices: AFTER USE, WASH HANDS W/SOAP & WATER BEFORE EATING, DRINKING OR SMOKING. LAUNDER CONTAMINATED CLOTHING BEFORE USE.

SECTION 10 – DISCLAIMER

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