

**MATERIAL SAFETY DATA SHEET**

**PRODUCT NAME:** RETARDER FOR WATERBASE  
**PRODUCT CODE:** 1816

**HMIS CODES: H F R P**  
1 1 0 E

===== **SECTION I - MANUFACTURER IDENTIFICATION** =====

**MANUFACTURER'S NAME:** T.W. GRAPHICS GROUP  
**ADDRESS:** 3323 S. Malt Avenue, City of Commerce, CA 90040  
**EMERGENCY PHONE:** 1-800-424-9300 **INFORMATION PHONE:** (323) 721-1400  
**DATE REVISED :** 12-28-99 **NAME OF PREPARER :** Juan A. Madrigal  
**REASON REVISED :** Update

===== **SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION** =====

HAZARDOUS COMPONENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
		OSHA PEL	ACBIH TLV	MFR TLV		
Hexylene Glycol	107-41-5	25 ppm	25 ppm	0.1	68F	95
Dimethylethanolamine		25 ppm		N/A		5

++++ No toxic chemical (s) subject to the reporting requirements of Section 313 of Title III and of 40 CFR 372 are present. ++++++

===== **SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS** =====

**BOILING POINT:** 274 Deg F **SPECIFIC GRAVITY (H20=1):** 0.9  
**VAPOR DENSITY:** HEAVIER THAN AIR **EVAPORATION RATE:** SLOWER THAN ETHER  
**SOLUBILITY IN WATER:** Soluble.  
**APPEARANCE AND ODOR:** Colorless, slightly viscous liquid, slight amine odor.

===== **SECTION IV - FIRE AND EXPLOSION HAZARD DATA** =====

**FLASH POINT:** 211 Deg F **METHOD USED:** TCC  
**FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER:** 1.2% **UPPER:** 8.1%

**EXTINGUISHING MEDIA:** FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG

**SPECIAL FIREFIGHTING PROCEDURES:**

Wear self-contained breathing apparatus and protective clothing to protect against hazardous effects of normal combustion or oxygen deficiency.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

None known.

=====SECTION V - REACTIVITY DATA

**STABILITY: STABLE**  
**CONDITIONS TO AVOID**  
None.

**INCOMPATIBILITY (MATERIALS TO AVOID)**  
Avoid strong acids and strong oxidizing agents.

**HAZARDOUS DECOMPOSITION OR BYPRODUCTS**  
Normal combustion products as carbon monoxide, carbon dioxide, or oxides of nitrogen.

**HAZARDOUS POLYMERIZATION:** *WILL NOT OCCUR*

=====SECTION VI - HEALTH HAZARD DATA

**INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**  
Vapors (100 ppm) may cause nasal and respiratory irritations.

**SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**  
Liquid may cause slight to moderate skin irritation.

**SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**  
May cause moderate skin irritation.

**INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**  
May cause central nervous system depression.

**HEALTH HAZARDS (ACUTE AND CHRONIC):**  
May cause eye, skin, and respiratory irritations.

**CARCINOGENICITY:** *NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED? NO*

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:**  
May cause dizziness, headache, nausea.

**EMERGENCY AND FIRST AID PROCEDURES:**

***EYE CONTACT:*** Flush eyes with plenty of water for at least 15 minutes while holding the eyelids open. If irritation persists, see a physician.

***SKIN CONTACT:*** Wash skin thoroughly with soap and water. If irritation persists, see a physician.

***INHALATION:*** If there are acute or chronic symptoms, move person to fresh air, give artificial respiration and call a physician.

## ===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

Eliminate open flames or ignition in the vicinity of spill or released vapor. Stop source of leak. Absorb large spills with absorbent clay or other suitable materials.

**WASTE DISPOSAL METHOD:**

Place contaminated material in disposable containers. Incinerate observing local, state, and federal health, safety and pollution laws.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:**

Store and use in a well-ventilated area.

*DO NOT USE OR STORE NEAR OPEN FLAME, SPARKS, OR HOT SURFACES.*

*KEEP CONTAINERS TIGHTLY CLOSED.*

**OTHER PRECAUTIONS**

HMIS Ratings: H/1, R/0, F/1, P/E.

## ===== SECTION VIII - CONTROL MEASURES =====

**RESPIRATORY PROTECTION**

Wear approved NIOSH respiratory protective equipment.

**VENTILATION**

Use adequate ventilation to keep airborne concentration below exposure standards.

**PROTECTIVE GLOVES**

Use waterproof gloves for direct contact.

**EYE PROTECTION**

Use safety goggles for prolonged exposure.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT**

Eye wash fountain, safety showers. Wash contaminated clothing before use.

**WORK/HYGIENIC PRACTICES**

Recommends safety showers and eyewash fountains.

## ===== SECTION IX - DISCLAIMER =====

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