

MATERIAL SAFETY DATA SHEET #6

Medical Emergency Telephone (Poison Center): (303) 623-5716
 Chemtrec Emergency Telephone: 1-800-424-9300
 Non-Emergency Telephone: 1-413-525-5870

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

PRODUCT NAME: SUBTRACTIVE DEVELOPER

PRODUCT DESCRIPTION: Developer for Subtractive single and 2-sided plates.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS (Typical Values)

HAZARDOUS INGREDIENTS	CAS NO.	WT %	ACGIH(TLV)	OSHA(PEL)†
Glycerin	56-81-5	1-5	*NE	*NE
Benzylalcohol	100-51-6	3-9	*NE	*NE
OTHER IMPORTANT INGREDIENTS				
Water	7732-18-5	70-80	*NE	*NE
Mixture of Surfactants	-	5-10	*NE	*NE
Ammonium Sulfite	10196-04-0	1-5	*NE	*NE
Mix/Starch Derivatives & Gums	68131-37-3	5-10	*NE	*NE

†The PEL limit values listed above are published figures from the 1989 Title 29, CFR 1910.1000, Z list using transitional limits.

*None Established

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Keep unnecessary people away and upwind of fire. Toxic gases may be emitted when heated to decomposition. Some of these materials may burn but none of them ignites readily. Follow Section 5 for fire fighting measures and Section 6 for accidental release measures. In case of contact with material, immediately flush eyes with running water for at least 15 minutes. See **Emergency Response Guide (DOT) #31**.

POTENTIAL HEALTH EFFECTS: Routes of Entry.....Eye, Skin, Inhalation, Ingestion

A. ACUTE EXPOSURE EFFECTS (NOTE: Pertains to Finished Product)

Eye Contact: May cause irritation.
 Skin Contact: May cause irritation.
 Inhalation: Normally no problem, but inhalation of mist could cause respiratory irritation.
 Ingestion: May cause irritation of the mucous membranes or digestive tract..

B. CHRONIC HEALTH EFFECTS (NOTE: Pertains to each ingredient listed in Section 2 per 29 CFR Sect. 1910.1200)

A computerized literature search of national databases did not yield any chronic effects associated with these materials. (These databases are researched every six months for any new toxic information.)

Carcinogenicity Listing NTP No IARC No OSHA No

SECTION 4: FIRST AID MEASURES

Eyes: Immediately flush with plenty of running water for at least 15 minutes. Obtain medical attention.
Skin: Flush affected areas promptly with water for 15 minutes. Remove contaminated clothing. In case of continued irritation consult physician.
Inhalation: For over-exposure, remove to fresh air.
Ingestion: Obtain immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: 200° F TCC
Extinguishing Media: Foam, Dry Chemical, CO₂. Water may be ineffective but should be used to keep fire-exposed containers cool.
Special Fire Fighting Procedures: Containers should be kept cool with water spray. To avoid inhalation of toxic fumes, wear MSHA/NIOSH-approved self-contained breathing apparatus.
Unusual Fire & Explosion Hazards: When heated to decomposition, emission of toxic fumes is possible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures NOTE: Review Sections 5 and 8 before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Dike spill. Prevent liquid from entering sewers, waterways, or low areas. Soak up with sawdust, sand, oil dry, or other absorbent material and place in tight, closed, metal containers.

SECTION 7: HANDLING AND STORAGE

Avoid eye and skin contact, and store in well-ventilated area. Keep container tightly closed. Do not store with incompatible materials (see Section 10). Do not store or consume food, drink or tobacco in area where they may become contaminated with this material. Avoid ignition sources and ground product transfer system to prevent fire or explosion risk from static accumulation and discharge.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: None needed with working mixtures and normal room ventilation (10 changes of air per hour).
Ventilation: Room ventilation is sufficient. Avoid use of product in unventilated areas. Always control airborne levels below the exposure guidelines when reported in Section 2 (use 50% of the TLV).
Skin and Eye Protection: Splash protection required for eyes, e.g., eye glasses with side shields or goggles. For skin protection use chemical resistant gloves and aprons. Disposable coveralls are optional, and discard after use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT	214° F
MELTING POINT	Not Applicable
VAPOR PRESSURE (mm Hg) at 20°C	Not Determined
VAPOR DENSITY (AIR=1)	Not Determined
EVAPORATION RATE: (Butyl acetate = 1)	Not Established
VOLATILE FRACTION BY WEIGHT	Not Established
SOLUBILITY IN WATER (By Weight %)	Soluble
SPECIFIC GRAVITY (H ₂ O=1)	1.065
pH	7.0 - 7.5
APPEARANCE	Clear Amber
ODOR	Mud Soap

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable.
Incompatibility:	Avoid strong oxidizers such as Hydrogen Peroxide, Bromine, and Chromic Acid.
Hazardous Decomposition Products:	CO ₂ , CO, Oxides of Sulfur
Hazardous Polymerization:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological properties of this substance have not been fully investigated.

SECTION 12: ECOLOGICAL INFORMATION

General: Not expected to present any significant ecological problems.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Recover nonusable free liquid and/or contaminated water, and dispose of in an approved and permitted treatment system; incineration is recommended. Remove nonusable solid material and/or contaminated soil, for disposal in an approved and permitted landfill. Discharge to sewer requires approval of permitting authority and may require pretreatment.

SECTION 14: TRANSPORTATION INFORMATION

DOT, IMO, IATA/ICAO, Transport Canada

Freight Classification - Photographic Developer

NFPA Hazard Rating

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
SPECIAL	None
4 = Extreme	1 = Slight
3 = High	0 = Insignificant
2 = Moderate	

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATION

OSHA: Hazard Communication Rule, 29 CFR, 1910.1200 - Not listed.

TSCA: All ingredients in this finished product are listed on the EPA TSCA Inventory (see Section 2).

CERCLA HAZARDOUS SUBSTANCE (40 CFR 302): Not listed RQ = None.

SARA Title III: Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313).

SARA Hazard Categories: **Immediate** (see Section 3, Acute Health Effects) **Fire** (see Section 5).
Components present in this product at a level which could require reporting under the statute are: None.

CHEMICAL SUBSTANCE	CAS NO.	CONCENTRATION	A	B	C	D	E	F	G
FEDERAL REGULATIONS A = SARA	STATE REGULATIONS B = California Proposition 65 C = Florida D = Rhode Island	INTERNATIONAL REGULATIONS *E = EINECS F = WHMIS (Canada) G = Canadian Domestic Substance List							

*EINECS Number:

SECTION 16: OTHER INFORMATION

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