

MATERIAL SAFETY DATA SHEET #44

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: Thermal Developer

PRODUCT DESCRIPTION: Aqueous Developer Solution for Positive Thermal Plates

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

HAZARDOUS INGREDIENTS	CAS NO.	WT %	ACGIH(TLV)	OSHA(PEL)†
Sodium Metasilicate	6834-92-0	5 - 20	*NE	*NE
Proprietary Surfactants	Confidential	5 - 20	*NE	*NE
OTHER IMPORTANT INGREDIENTS				
Water	7732-18-5	60 - 70	*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

A clear liquid with no odor. During a fire, irritating vapors and mists can be generated by thermal decomposition which can cause severe irritation to eyes, skin, and mucous membranes. Follow Section 5 for fire fighting procedures 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 #60**.

POTENTIAL HEALTH EFFECTS: Routes of EntryEye, Skin, Inhalation, Ingestion

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

Eye Contact: May cause severe irritation and burning.
 Skin Contact: May cause severe irritation and burning
 Inhalation: Normally no problem, but inhalation of mist could cause respiratory irritation.
 Ingestion: May cause severe irritation and burning 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.) However, there is always the possibility of dermatitis and respiratory disease under continuous exposure.

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. Do not induce vomiting.

SECTION 5: FIRE FIGHTING MEASURES

Fire and Explosion Data: Noncombustible
Fire and Explosion Hazards: None
Extinguishing Media: Any applicable to primary cause of fire.
Special Fire Fighting Procedures: Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.
Unusual Fire & Explosion Hazards: None known.

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. Spill may be neutralized with powdered Citric Acid. Store in closed waste disposal-type containers prior to ultimate disposal.

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.

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	> 100°C
MELTING POINT	Not Applicable
VAPOR PRESSURE (mm Hg) at 20°C	Not Estimated
VAPOR DENSITY (AIR=1)	Not Estimated
EVAPORATION RATE: (Butyl acetate = 1)	Not Estimated
VOLATILE FRACTION BY WEIGHT	Not Estimated
SOLUBILITY IN WATER (By Weight %)	Approx. 100%
SPECIFIC GRAVITY (H ₂ O=1)	1.08 – 1.09
pH	13.0 (Basic)
APPEARANCE	Clear Liquid
ODOR	Typical

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable
Incompatibility:	Some Strong Acids
Hazardous Decomposition Products:	Oxides
Hazardous Polymerization:	Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological properties of this substance have not been fully investigated. However, the solution is known to be low in toxicity.

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

Hazard Class:	Corrosive Material, Class 8
Proper Shipping Name: (Sodium Metasilicate)	Corrosive Liquid, basic, inorganic, n.o.s.
UN Number:	UN 3266
Label:	Corrosive
Packing Group:	II
Placard:	Corrosive (over 1,000 [#] aggregate weight)

NFPA Hazard Rating

HEALTH	3
FLAMMABILITY	0
REACTIVITY	0
SPECIAL	None

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATION

OSHA: Hazard Communication Rule, 29 CFR, 1910.1200: Section 2, 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 and Delayed** (see Section 3, Acute Health Effects).
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
Sodium Metasilicate	6834-92-0	5 - 20	-	-	-	-	-	-	-
Proprietary Surfactants	Confidential	5 - 20							
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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For Technical Information Contact: Technical Manager
PROCESS SOLUTIONS, INC.
198-202 Benton Drive
East Longmeadow, Ma 01028

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