

M A T E R I A L S A F E T Y D A T A S H E E T



Shipley Company, Inc.
 455 Forest Street
 Marlboro, Massachusetts 01752

Emergency Phone: (508) 481-7950

Chemtrec Phone: (800) 424-9300

Section I - PRODUCT INFORMATION

PRODUCT NAME: MICROPOSIT(R) 351 DEVELOPER

PRODUCT CLASS: Developer

EFFECTIVE DATE: 15 March 1990

MSDS # MC-00016 SUPERSEDES: 03-03-89 PREPARED BY: T. Blakeslee

Section II - HAZARDOUS COMPONENTS

COMPONENT	CAS #	WEIGHT%	ACGIH TLV ppm(mg/m3)	OSHA PEL ppm(mg/m3)
Sodium Hydroxide	1310-73-2	5	(2)	(2)
Non-Hazardous				
Ingredients	N.A.	9	N.A.	N.A.
Water	N.A.	86	N.A.	N.A.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Shibley Company, Inc., Marlboro, Massachusetts, 01752

Product Name: MICROPOSIT(R) 351 DEVELOPER

Section III - HEALTH HAZARDS

CARCINOGENIC STATUS: Not considered carcinogenic by NTP, IARC and OSHA.

EXPOSURE LIMITS: Not established. Keep vapor concentrations below component TLV's.

ROUTES OF ENTRY: Inhalation of mists or vapors, eye and skin contact, ingestion, skin absorption.

ACUTE EFFECTS: Corrosive to all body tissues. Eye and skin contact, inhalation and ingestion can cause severe irritation and burns. Onset of symptoms may be delayed.

CHRONIC EFFECTS: Prolonged, repeated contact with skin can cause drying, cracking, defatting, dermatitis.

EMERGENCY FIRST AID PROCEDURES:

INGESTION: Do not induce vomiting. Give large amounts of water. Never give anything by mouth to an unconscious person. Contact physician at once.

EYE CONTACT: Flush immediately with plenty of water for at least 15 minutes. Contact physician.

SKIN CONTACT: Flush immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. Contact physician. Wash clothing before reuse.

INHALATION: Move into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Contact physician at once.

NOTE TO PHYSICIAN: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

Shibley Company, Inc., Marlboro, Massachusetts, 01752

Product Name: MICROPOSIT(R) 351 DEVELOPER

Section IV - PHYSICAL DATA

APPEARANCE AND ODOR: White water liquid with no noticeable odor.
% VOLATILE BY WEIGHT: N.A.
EVAPORATION RATE: N.A.
SPECIFIC GRAVITY: Approx. 1.0-1.1
VAPOR DENSITY(AIR=1): N.A.
SOLUBILITY IN WATER: Complete
BOILING POINT: > 212 oF
pH: > 12
VAPOR PRESSURE(MMHg): N.A.

Section V - PHYSICAL HAZARDS

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Non-flammable
METHOD USED: N.A.
FLAMMABLE LIMITS(% IN AIR): N.A.
EXTINGUISHING MEDIA: Water, carbon dioxide, dry chemicals
SPECIAL FIRE FIGHTING PROCEDURES: None
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

REACTIVITY DATA

STABILITY: Stable
CONDITIONS TO AVOID: None known
INCOMPATIBILITY: Acids
DECOMPOSITION PRODUCTS: Neutralization produces heat.
HAZARDOUS POLYMERIZATION: Will not occur.

Shibley Company, Inc., Marlboro, Massachusetts, 01752

Product Name: MICROPOSIT(R) 351 DEVELOPER

Section VI - SPILL, LEAK AND DISPOSAL PROCEDURES

ACTION TO TAKE FOR SPILL:

Spills may be absorbed with appropriate absorbent material for alkaline solutions and placed in a suitable container for disposal. To clean contaminated floors, flush with abundant quantities of water into sewer or waste treatment system if permitted by federal, state and local regulations. If not, collect water and treat.

Dispose of contaminated product and materials used in cleaning up spills and leaks in a manner approved for this material.

DISPOSAL:

Due to the nature of this product, disposal of it, or residues therefrom should be made in compliance with federal, state and local environmental laws.

Contact your Shibley Technical Representative for more information. It is your responsibility to verify that any recommended procedures comply with federal, state and local regulations for wastewater discharge.

Section VII - PRECAUTIONS FOR SAFE USE AND HANDLING

RESPIRATORY PROTECTION: The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator. The respirator must be approved by the National Institute for Occupational Safety and Health for the substance of concern.

EYE PROTECTION: Chemical goggles.

PROTECTIVE CLOTHING: Chemical resistant gloves and suitable protective clothing to prevent skin contact.

WORK PRACTICES: Avoid skin contact. Practice good personal hygiene to prevent accidental exposure.

VENTILATION: Provide good general (mechanical) room ventilation. Special local exhaust ventilation is recommended at points where vapors can be released into the workplace air.

Shibley Company, Inc., Marlboro, Massachusetts, 01752

Product Name: MICROPOSIT(R) 351 DEVELOPER

Section VIII - SPECIAL PRECAUTIONS / ADDITIONAL INFORMATION

PRECAUTIONS TO TAKE IN HANDLING AND STORAGE:

CAUTION! Treat as a dilute alkaline solution. Store in closed original container in a cool, dry area at 50-90 oF. Keep away from acids. Do not store in direct sunlight.

Section IX - TRANSPORTATION

DOT PROPER SHIPPING NAME: Sodium Hydroxide Solution
DOT HAZARD CLASSIFICATION: Corrosive Material
DOT HAZARD IDENTIFICATION NUMBER: UN1824

Shipley Company, Inc., Marlboro, Massachusetts, 01752

Product Name: MICROPOSIT(R) 351 DEVELOPER

Section X - REGULATORY INFORMATION

TSCA STATUS:

The products listed and their components have been manufactured in accordance with the inventory listing and premanufacture notice requirements of the Toxic Substance Control Act.

MA RIGHT TO KNOW LAW:

All components have been checked for inclusion on the Massachusetts Substance List.

CALIFORNIA Proposition 65:

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

HAZARD CATEGORIES UNDER CRITERIA OF
OF SARA TITLE III RULES (40 CFR 370): Immediate

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372:

CAS #	Chemical Name	Percent by Weight
N/A	N/A	N/A

Section XI - NOTICE

N.A. denotes no applicable information was found

THE DATA CONTAINED HEREIN IS BASED ON INFORMATION THAT SHIPLEY COMPANY BELIEVES TO BE RELIABLE, BUT NO EXPRESSED OR IMPLIED WARRANTY IS MADE WITH REGARD TO THE ACCURACY OF SUCH DATA OR ITS SUITABILITY FOR A GIVEN SITUATION. SUCH DATA RELATES ONLY TO THE SPECIFIC PRODUCT DESCRIBED AND NOT TO SUCH PRODUCTS IN COMBINATION WITH ANY OTHER PRODUCT AND NO AGENT OF SHIPLEY COMPANY IS AUTHORIZED TO VARY ANY OF SUCH DATA. SHIPLEY COMPANY AND ITS AGENTS DISCLAIM ALL LIABILITY FOR ANY ACTION TAKEN OR FOREGONE ON RELIANCE UPON SUCH DATA.