



MATERIAL SAFETY DATA SHEET
MICROPOSIT DEVELOPER CONCENTRATE
30100 3.00 US US MSDS_US

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Code 30100
Trade Name MICROPOSIT DEVELOPER CONCENTRATE
Manufacturer/Supplier Shipley Company
Address 455 Forest St.
Marlborough, Massachusetts 01752

Phone Number (508) 481-7950
Emergency Phone Number (508) 481-7950
Chemtrec # (800) 424-9300
MSDS first issued 26 September 1996
MSDS data revised 8 June 1999
Prepared By: Environmental, Health & Safety Department
Local Sales Company Shipley Company, 455 Forest Street, Marlboro, MA 01752
(508-481-7950)

2. COMPOSITION/INFORMATION ON THE INGREDIENTS

Components without CAS numbers are Trade Secret

Component Name	CAS# / Codes	Concentration
water	7732-18-5	90.00 - 95.00
Alkaline-phosphate salt		1.00 - 5.00
Silicate compound		1.00 - 5.00

3. HAZARD IDENTIFICATION

Main Hazards - Irritant - Skin - Eye - Respiratory System - Kidney

Routes of Entry Inhalation, ingestion, eye and skin contact.

Carcinogenic Status Not considered carcinogenic by NTP, IARC and OSHA

Target Organs - Skin - Eye - Respiratory System - Kidney

Health Effects - Eyes Liquid, mist or vapor will cause conjunctival irritation and possibly corneal damage.

Health Effects - Skin Material will cause severe irritation and may cause chemical burns. Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.

Health Effects - Ingestion Swallowing may have the following effects:

3. HAZARD IDENTIFICATION

	- severe irritation of mouth, throat and digestive tract - kidney damage
Health Effects - Inhalation	Exposure to vapor or mist may have the following effects: - severe irritation of nose, throat and respiratory tract Exposure to vapor at high concentrations may have the following effects: - lung damage - kidney damage

4. FIRST AID MEASURES

First Aid - Eyes	Immediately flush the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.
First Aid - Skin	Immediately flush the skin with large quantities of water, preferably under a shower. Remove contaminated clothing while flushing skin. Continue washing for at least 15 minutes. Contaminated clothing should be washed or dry-cleaned before re-use. Obtain medical attention if blistering occurs or redness persists.
First Aid - Ingestion	Wash out mouth with water. Obtain medical attention.
First Aid - Inhalation	Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately
Advice to Physicians	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Not readily combustible. Select extinguishing agent appropriate to other materials involved.
Special Fire-Fighting Procedures	None.
Unusual Fire & Explosion Hazards	None.
Protective Equipment for Fire-Fighting	No special fire-fighting clothing required.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures	Contain and absorb using earth, sand or other inert material.
Personal Precautions	Wear appropriate protective clothing.
Environmental Precautions	None known.

7. HANDLING AND STORAGE

Handling	Use in well ventilated area.
Storage	Store in original containers. Storage area should be: - cool - dry - well ventilated - out of direct sunlight
Other	None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Alkaline-phosphate salt None assigned.

Silicate compound None assigned.

Engineering Control Measures Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

Respiratory Protection Respiratory protection if there is a risk of exposure to high vapor concentrations. 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.

Hand Protection Neoprene or nitrile gloves. Other chemical resistant gloves may be recommended by your safety professional.

Eye Protection Chemical goggles.

Body Protection Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Color	Almost colorless
Odor	Odorless
VOC (g/l)	None.
Specific Gravity	1.0-1.1
pH	>12
Boiling Range/Point (°C/F)	begins at 120 °C.
Flash Point (PMCC) (°C/F)	Not Flammable
Explosion Limits (%)	Not applicable.
Solubility in Water	Completely soluble.
Vapor Density (Air = 1)	Heavier than air.
Evaporation Rate	Slower than ether
Vapor Pressure	Not applicable.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	- contact with incompatible materials - Exposure to direct sunlight
Incompatibilities	- Acids
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	- oxides of phosphorus

11. TOXICOLOGICAL INFORMATION

Acute Data	Silicate compound: Oral LD50 (rat) 1280mg/kg. A single 4h semi-occlusive application to intact rabbit skin produced severe irritation (mean scores for erythema or edema much greater than 2).
Chronic/Subchronic Data	No relevant studies identified.
Genotoxicity	No adverse effects are expected.
Reproductive/Developmental Toxicity	No adverse reproductive or fetal developmental effects are expected.

11. TOXICOLOGICAL INFORMATION

Additional Data No relevant information known.

12. ECOLOGICAL INFORMATION

Mobility The product is involatile and water soluble and will partition to the aqueous phase. The product is poorly absorbed onto soils or sediments.

Persistence/Degradability The product is expected to be readily biodegradable.

Bio-accumulation Product is not expected to bioaccumulate.

Ecotoxicity Silicate compound: Tests on the following species gave a 96h LC50 of 530mg/litre:
- mosquito fish
Tests on the following species gave a 48h LC50 of 113mg/litre:
- ceriodaphnia dubia (water flea)

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with all applicable local and national regulations.

Container Disposal Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues. Dispose of containers with care.

14. TRANSPORT INFORMATION

DOT Ground: Not Regulated
UN Proper Shipping Name Not Regulated
UN Class None.
UN Number None
UN Packaging Group None.
N.O.S. 1: Not applicable.
N.O.S. 2: Not applicable.
Subsidiary Risks None.
ADR/RID Substance Identification Number None assigned.

14. TRANSPORT INFORMATION

CERCLA RQ	None.
Marine Pollutant	None.

15. REGULATORY INFORMATION

TSCA Listed	All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.
TSCA Exemptions	
TSCA Sec.12(b) Export Notification	This product does not contain any substances subject to Section 12(b) export notification.
WHMIS Classification	None.
MA Right To Know Law	All components have been checked for inclusion on the Massachusetts Substance List (MSL). Those components present at the de minimus concentration have been identified in the hazardous ingredients section of the MSDS.
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.
SARA TITLE III-Section 311/312 Categorization (40 CFR 370)	Immediate, delayed health hazard
SARA TITLE III-Section 313 (40 CFR 372)	This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

16. OTHER INFORMATION

NFPA Rating- FIRE	0
NFPA Rating- HEALTH	1
NFPA Rating- REACTIVITY	0
NFPA Rating- SPECIAL	None.
Revisions Highlighted	Hazard Identification First Aid Measures Toxicological Information Ecological Information
Abbreviations	N/A: Denotes no applicable information was found. CAS#: Chemical Abstract Services Number ACGIH: American Conference of Governmental Industrial Hygienists



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16. OTHER INFORMATION

OSHA: Occupational Safety and Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
NTP: National Toxicology Program
IARC: International Agency for Research on Cancer
R: Risk
S: Safety
LD50: Lethal Dose 50%
LC50: Lethal Concentration 50%
BOD: Biological Oxygen Demand
Koc: Soil Organic Carbon Partition Coefficient.
TLm: Median Tolerance Limit

Disclaimer

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.
