



MATERIAL SAFETY DATA SHEET
MICROPOSIT LOL 2000 PHOTO RESIST LIFTOFF LAYER
30630 2.00 US US 29.03.1999 MSDS_US

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Code	30630
Trade Name	MICROPOSIT LOL 2000 PHOTO RESIST LIFTOFF LAYER
Manufacturer/Supplier	Shipley Company
Address	455 Forest St. Marlborough, Massachusetts 01752
Phone Number	(508) 481-7950
Emergency Phone Number	(508) 481-7950
Chemtec #	(800) 424-9300
MSDS first issued	4 August 1997
MSDS data revised	29 March 1999
Prepared By:	Amy C. Nichols
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
Dye Compound		0.10 - 1.00
cyclopentanone	120-92-3	91.00 - 96.00
Aliphatic imide polymer		3.00 - 8.00

3. HAZARD IDENTIFICATION

Main Hazards	- Irritant - Flammable - Skin - Eye - Nervous System
Routes of Entry	Inhalation, ingestion, eye and skin contact, absorption.
Carcinogenic Status	Not considered carcinogenic by NTP, IARC and OSHA
Target Organs	- Skin - Eye - Nervous System
Health Effects - Eyes	Liquid or vapor may cause slight transient irritation.
Health Effects - Skin	Material may cause slight irritation on prolonged or repeated contact. Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.
Health Effects - Ingestion	Swallowing may have the following effects: - irritation of mouth, throat and digestive tract - dizziness - light



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3. HAZARD IDENTIFICATION

headedness - drowsiness

Health Effects - Inhalation Exposure to vapor at high concentrations may have the following effects:
- drowsiness - irritation of nose, throat and respiratory tract

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 Wash skin with water. 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. Seek medical attention if symptoms persist.

Advice to Physicians Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media Use water spray, foam, dry chemical or carbon dioxide. Keep containers and surroundings cool with water spray.

Special Fire-Fighting Procedures This product may give rise to hazardous vapors in a fire. Vapors can travel a considerable distance to a source of ignition and result in flashback.

Unusual Fire & Explosion Hazards Pressure may build up in closed containers with possible liberation of combustible vapors.

Protective Equipment for Fire-Fighting Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal. Finally



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6. ACCIDENTAL RELEASE MEASURES

	flush area with plenty of water.
Personal Precautions	Wear appropriate protective clothing. Wear respiratory protection. Eliminate all sources of ignition.
Environmental Precautions	Prevent the material from entering drains or water courses.

7. HANDLING AND STORAGE

Handling	Use local exhaust ventilation. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.
Storage	Store in original containers. Store away from sources of heat or ignition. Storage area should be: - cool - dry - well ventilated - out of direct sunlight
Other	None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards	
cyclopentanone	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	Butyl rubber gloves.
Eye Protection	Chemical goggles.
Body Protection	Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Color	Clear - Pale Yellow



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9. PHYSICAL AND CHEMICAL PROPERTIES

Odor	Sweet
VOC (g/l)	892.8
Specific Gravity	0.966
pH	Neutral
Boiling Range/Point (°C/F)	130 / 266
Flash Point (PMCC) (°C/F)	30 / 86
Explosion Limits (%)	Data not available.
Solubility in Water	Insoluble.
Vapor Density (Air = 1)	Heavier than air.
Evaporation Rate	Slower than ether
Vapor Pressure	Cyclopentanone: 10 mmHg at 23 °C.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	- High temperatures - Static discharge
Incompatibilities	- Oxidizing agents - Bases - Acids - Reducing agents - Combustibles
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	- carbon monoxide - Carbon Dioxide

11. TOXICOLOGICAL INFORMATION

Acute Data	Cyclopentanone: Oral LD50 (rat) 1180mg/kg.
Chronic/Subchronic Data	No relevant studies identified.
Genotoxicity	No relevant studies identified.
Reproductive/Developmental Toxicity	No relevant studies identified.
Additional Data	None known.



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12. ECOLOGICAL INFORMATION

Mobility	Cyclopentanone: The product will dissolve slowly in water. The product is poorly absorbed onto soils or sediments. The product will leach into soil.
Persistence/Degradability	Cyclopentanone: The product is readily biodegradable in acclimated treatment systems.
Bio-accumulation	Product is not expected to bioaccumulate.
Ecotoxicity	No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Product Disposal	Incineration is the recommended method of 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:	Cyclopentanone Solution
UN Proper Shipping Name	Cyclopentanone Solution
UN Class	(3) Flammable Liquid
UN Number	UN 2245
UN Packaging Group	III
N.O.S. 1:	Not applicable.
N.O.S. 2:	Not applicable.
Subsidiary Risks	None.
ADR/RID Substance Identification Number	CLASS 3 - 31(c)
CERCLA RQ	None.
Marine Pollutant	No.

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
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15. REGULATORY INFORMATION

TSCA Exemptions	been granted in accordance with 40 CFR 723.50.
TSCA Sec.12(b) Export Notification	This product does not contain any substances subject to Section 12(b) export notification.
WHMIS Classification	D.2.B B.2
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, flammability 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	3
NFPA Rating- HEALTH	2
NFPA Rating- REACTIVITY	0
NFPA Rating- SPECIAL	None.
Revisions Highlighted	Physical and Chemical Properties Toxicological Information Ecological Information
Abbreviations	CAS#: Chemical Abstract Services Number ACGIH: American Conference of Governmental Industrial Hygienists 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%



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16. OTHER INFORMATION

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.
