

MICRO • CHEM

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MATERIAL SAFETY DATA SHEET

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SECTION 1. CHEMICAL IDENTIFICATION

CHEMICAL NAME: Organic Solvent Mixture
TRADE NAME: ~~NANO™ EBR PG~~
PRODUCT #: Positive Radiation Resist Edge Bead Remover
G042075

SECTION 2. COMPOSITION

HAZARDOUS
INGREDIENTS: 1,3-Dioxolane (CAS: 646-06-0); 70-80%
Propylene Glycol Methyl Ether (CAS: 107-98-2); 20-30%
OTHER
INGREDIENTS: None

SECTION 3. HAZARD DATA

INFLAMMABILITY: Flammable liquid.
SKIN CONTACT: May cause skin irritation.
EYE CONTACT: May cause serious damage to the eyes.
INGESTION: May be harmful if swallowed.
INHALATION: Irritating to mucous membranes and upper respiratory tract.
MUTAGENICITY: Not known to be mutagenic.
CARCINOGENICITY: Not considered carcinogenic by NTP, IARC and OSHA
TARGET ORGANS: Eyes, Respiratory Tract

SECTION 4. FIRST AID MEASURES

INHALATION: If inhaled, remove to fresh air. If patient has stopped breathing, give artificial respiration. If breathing is difficult give oxygen. Contact physician immediately.
INGESTION: Wash out mouth with water if conscious. Get medical attention immediately.
SKIN CONTACT: Rinse with water for 15 minutes while removing contaminated clothing and shoes. Wash affected area with soap and water. Wash contaminated clothing.
EYE CONTACT: Rinse immediately with water, flush for 15 min. lifting eyelids frequently. Get emergency medical assistance.

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SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, and foam.
SPECIAL FIRE FIGHTING PRECAUTIONS: Wear self-contained breathing apparatus (SCBA) and personal protective equipment to prevent contact with skin and eyes.
UNUSUAL FIRE OR EXPLOSION HAZARDS: Vapor may travel considerable distance to source of ignition and flash back. Heat will build pressure and may rupture closed containers. Forms explosive mixtures in air. Keep containers cool with water spray.

SECTION 6. ACCIDENTAL RELEASE PROCEDURES

Evacuate Area.
Eliminate all ignition sources.
Wear self-contained breathing apparatus (SCBA), rubber boots, and heavy rubber gloves. Avoid eye or skin contact. Cover with dry absorbent material and collect in closed container for disposal using non-sparking tools. Ventilate area and wash spill sites after material pickup is complete, rinse with water. All clean up should be carried out in accordance with federal, state, and local regulations. If required proper authorities should be notified.

SECTION 7. STORAGE AND HANDLING PRECAUTIONS

STORAGE: Store in tightly closed container in a cool environment away from direct sunlight.
HANDLING: Highly flammable. Keep away from heat, sparks, and flames.
Take precautions against static discharge.
Do not breathe vapors.
Use only with mechanical exhaust.
Do not contact with skin, eyes, and clothing.
Severe eye irritant.
Avoid prolonged or repeated exposure.
Wear heavy rubber gloves.
Wash with soap and water after handling.
Have safety shower and eye wash available.

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SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY PROTECTION: In case of spills, use of self-contained breathing apparatus (SCBA) is recommended.
VENTILATION: Local or general mechanical ventilation is required.
SKIN PROTECTION: Heavy rubber gloves are highly recommended.
EYE PROTECTION: Safety goggles are highly recommended.

SECTION 9. PHYSICAL AND CHEMICAL DATA

APPEARANCE: Colorless to pale yellow liquid
ODOR: Ethereal
BOILING POINT: 74-117 °C (168-243 °F)
SPECIFIC GRAVITY: 1.030
VAPOR PRESSURE: 70 mm @ 20 °C (68 °F)
VAPOR DENSITY: 2.6 (air=1)
H₂O SOLUBILITY: 100% @ 20 °C, by wt.
% VOLATILES: 100% by wt
EVAPORATION RATE: 6 (BuAc=1)
FLASH POINT: -2 °C (27 °F) TCC
AUTOIGNITION TEMP: 274 °C (525 °F)
EXPLOSION LIMITS: 2.1 lower
20.5 upper

SECTION 10. REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY: Strong Oxidizing Agents, Strong Acids
HAZARDOUS POLYMERIZATION: Will not occur
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Carbon Monoxide, Carbon Dioxide

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SECTION 11. TOXICITY HAZARDS

ACUTE EFFECTS:

May be harmful if swallowed, inhaled, or absorbed through the skin.
Irritating to eyes and respiratory tract. May cause serious damage to the eyes.
Vapor or mist is irritating to the eyes, mucous membranes and upper respiratory tract.
Eye and skin contact can cause headache, nausea, vomiting, dizziness, weakness, drowsiness, narcosis, and loss of coordination in humans.
Causes moderate skin irritation in rabbits.

Prolonged and/or repeated exposure can cause absorption of harmful amounts of material.

ORAL: LD50 (rat): 3000 mg/Kg as 1,3-Dioxolane
LD50 (rat) 5660 mg/Kg as Propylene glycol methyl ether

INHALATION: LC50 (rat) 20,650 mg/M3/4hr as 1,3-Dioxolane

IRRITATION: skin: 530 mg mild as 1,3-Dioxolane
eyes: 750 µg severe as 1,3-Dioxolane

TLV: ACGIH (TWA) 100 ppm as Propylene glycol methyl ether
(STEL) 150 ppm as Propylene glycol methyl ether

PEL: OSHA (8hr TWA) 100 ppm as Propylene glycol methyl ether
(STEL) 150 ppm as Propylene glycol methyl ether

SECTION 12. ECOLOGICAL DATA

No data available at this time

SECTION 13. DISPOSAL CONSIDERATIONS

Burn in an EPA-licensed chemical incinerator equipped with an afterburner and scrubber at an approved waste disposal facility. Observe all federal, state, and local environmental regulations.

SECTION 14. TRANSPORTATION INFORMATION

HAZARD CLASSIFICATION: Flammable Liquid
SHIPPING NAME: Dioxolane Solution
UN NUMBER: UN 1166
PACKING GROUP II

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SECTION 15. REGULATORY INFORMATION

HAZARDOUS LISTINGS: All ingredients appear on the TSCA Inventory of Chemical Substances, EINECS, and the Japan Hazardous Chemical Listing.
SARA Title III: This product IS NOT subject to SARA Title III, Section 313 Reporting Requirements.

Calif. SCAQMD Rule 443.1 VOC's: 1030 g/l; vapor pressure 70 mm Hg @ 20 °C

SECTION 16. ADDITIONAL PRECAUTIONS AND COMMENTS

To the best of our knowledge, the above information is believed to be accurate but does not claim to be all-inclusive and is intended to be used only as a guide. The supplier makes no warranty of any kind, expressed or implied, concerning the use of this product and shall not be held liable for any damage resulting from handling or from contact with the above product. User assumes all risks incident to its use.