

MATERIAL SAFETY DATASHEET (MSDS)

"MICROCYSTIN-LR"

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SECTION I - Product Identification

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PRODUCT NAME: MICROCYSTIN-LR
DATE: 04/27/06
CAS #: 101043-37-2
SYNONYMS: MLR , MYC-LR, MICRO-LR

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SECTION II - Hazardous Components

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NDA

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SECTION III - Physical Data

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MP: NDA BP: NDA APPEARANCE & ODOR: SOLID. SOLUBILITY: METHANOL-SOLUBLE,
ETHANOL-SOLUBLE.

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SECTION IV - Fire and Explosion Hazard Data

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FLASHPOINT: NDA LEL: NDA UEL: NDA EXTINGUISHING MEDIA: WATER SPRAY CARBON
DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM. SPECIAL FIREFIGHTING
PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES. UNUSUAL FIRE AND EXPLOSION HAZARDS: NDA

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SECTION V - Health Hazard Data

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ACUTE EFFECTS: MAY BE FATAL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.
CAUSES EYE AND SKIN IRRITATION. MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND
UPPER RESPIRATORY TRACT. MAY CAUSE ALLERGIC SKIN REACTION. TARGET ORGANS: LIVER
THE TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED. FIRST AID
PROCEDURES: IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT
LEAST 15 MINUTES. REMOVE CONTAMITED CLOTHING AND SHOES. CALL A PHYSICIAN. IF
INHALED, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, CALL A PHYSICIAN.
IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST
15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. IF
SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. WASH
CONTAMINATED COTHING BEFORE REUSE. CALL A PHYSICIAN.

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SECTION VI - Reactivity Data

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STABILITY: STABLE. HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: NATURE OF
DECOMPOSITION PRODUCTS NOT KNOWN. HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.
INCOMPATIBILITIES: NDA

SECTION VII - Spill and Disposal Procedures

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SPILLED MATERIAL: WEAR PROTECTIVE EQUIPMENT. AVOID RAISING DUST. VENTILATE AREA & WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE. SWEEP UP OR PICK UP & PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL. DISPOSAL: DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTER BURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE AND LOCAL LAWS.

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SECTION VIII - Protective Equipment

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STORAGE PRECAUTIONS: CHEMICAL SAFETY GOGGLES. COMPATIBLE CHEMICAL-RESISTANT GLOVES. NIOSH/MSHA-APPROVED RESPIRATOR. SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUSE REQUIRED. USE ONLY IN CHEMICAL FUME HOOD.

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SECTION IX - Storage and Handling Precautions

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STORAGE PRECAUTIONS: VERY TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. MAY CAUSE SENSITIZATION BY SKIN CONTACT. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE.(SHOW THE LABEL WHERE POSSIBLE) IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION. KEEP CONTAINER TIGHTLY CLOSED IN A COOL WELL VENTILATED PLACE.

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SECTION X - Transportation Data and Additional Information

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SHIPPING: TREAT AS A HAZARDOUS MATERIAL.

TOXICITY DATA: POSSIBLE TUMOR PROMOTOR (Ito et al, 1997)
 INTRAPERITONEAL LD₅₀ in MICE: 25-150 UG KG⁻¹ BW
 ORAL GAVAGE LD₅₀ in MICE: 5,000-10,800 UG KG⁻¹ BW (Fawell et al, 1994,
 Yoshida et al, 1997)

References available upon request.

Material Safety Data Sheets are periodically reviewed and modified as new information becomes available.