

Safety Data Sheet

Section 1: Product and Company Identification

1.1 Product Identifiers:

Product Name: Microcystin LR Standard

Product Code: 300630

1.2 Identified Use: Positive control for determination of Microcystin LR in samples. **Restrictions on Use:** For research use only.

1.3 Company: Abraxis, Inc., 124 Railroad Drive, Warminster, PA 18974 USA, info@abraxiskits.com +1(215) 357-3911, FAX +1(215) 357-5232

1.4 Emergency Telephone Number: +1(215) 357-3911

Section 2: Hazard(s) Identification

2.1 Classification of the substance:

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 2), H300 Fatal if swallowed

Acute toxicity, Dermal (Category 2), H310 Fatal in contact with skin

Skin irritation (Category 2), H315 Causes skin irritation

Eye irritation (Category 2A), H319 Causes serious eye irritation

Skin sensitization (Category 1), H317 May cause an allergic skin reaction

Specific target organ toxicity - single exposure (Category 3), H335 Respiratory system

HMIS Rating: Health hazard: 3, Chronic Health Hazard: *, Flammability: 0, Physical Hazard 0

NFPA Rating: Health hazard: 2, Fire Hazard: 0, Reactivity Hazard: 0

2.2 GHS Label elements, including precautionary statements:

Pictogram(s)



Signal word: Danger

Hazard statement(s):

H300 + H310 Fatal if swallowed or in contact with skin

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statement(s):

P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/eye protection/face protection.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302 + P350 IF ON SKIN: Gently wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P330 Rinse mouth.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P361 Remove/Take off immediately all contaminated clothing.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: None known.

2.4 Unknown acute toxicity: None known.

Section 3: Composition / Information on Ingredients

3.1 Substances:

Name and Synonym(s): Microcystin LR, MCY LR, Cyanoginosin-LR, 5-L-Arginine-microcystin LA Formula: C₄₉H₇₄N₁₀O₁₂
Molecular weight: 995 g/mol CAS No.: 101043-37-2
Classification: Acute Toxicity 2; Skin Irritation 2; Eye Irritation 2A; Skin Sensitization 1; STOT SE 3; H300 + H310, H315, H317, H319, H335
Percentage: less than or equal to 100 %
For full text of H-Statements mentioned in this Section, see Section 2.

Section 4: First Aid Measures

4.1 Description of first aid measures: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed: No data available. Treat symptomatically.

Section 5: Fire-fighting Measures

5.1 Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide

5.2 Special hazards arising from the substance or mixture: Carbon oxides, nitrogen oxides

5.3 Advice for firefighters: Wear self-contained breathing apparatus for fire-fighting if necessary, and full protective gear to prevent contact with skin and eyes.

5.4 Further information: No data available

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment (see section 8). Avoid dust formation. Avoid breathing vapors, mist, dust, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up: Contain spillage. Solids (if applicable): Pick up and arrange disposal without creating dust. Sweep up and shovel. Liquids (if applicable): Absorb with non-combustible liquid-binding material (sand, earth, diatomite, vermiculite). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections: For information on safe handling see section 7.

For information on personal protection see section 8.

For information on disposal see section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling: See section 2. Avoid inhalation of dust, vapors, or mist, and avoid contact with skin and eyes. Wear appropriate personal protective equipment. Do not eat, drink, or smoke in work area.

7.2 Precautions for safe storage: Keep container(s) tightly closed in a dry, well-ventilated place. Protect from physical damage. Opened containers must be carefully resealed and kept upright to prevent leakage. See label or product insert for appropriate storage temperature and additional specific information.

7.3 Specific end use(s): Other than use(s) specified in section 1, no other uses are stipulated.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters:

Component(s) with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls:

Appropriate engineering controls: Provide adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Keep away from food and beverages.

Personal protective equipment

Eye protection: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Handle with chemical resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Body protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties of substance

Appearance: Solid	Odor: No data available	Odor Threshold: No data available
pH: No data available	Melting point/freezing point: No data available	
Initial boiling point and boiling range: No data available		Flash point: No data available
Evaporation rate: No data available	Flammability (solid, gas): No data available	
Upper/lower flammability or explosive limits: No data available		Vapor pressure: No data available
Vapor density: No data available	Relative density: No data available	
Water solubility: No data available	Partition coefficient: n-octanol/water: No data available	
Auto-ignition temperature: Not applicable		Decomposition temperature: No data available
Viscosity: No data available	Explosive properties: No data available	Oxidizing properties: No data available

9.2 Other information: No data available

Section 10: Stability and Reactivity

10.1 Reactivity: No data available

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: No data available

10.4 Conditions to avoid: No data available

10.5 Incompatible materials: Strong oxidizing agents

10.6 Hazardous decomposition products: No data available. In the event of fire: see section 5.

Section 11: Toxicological Information

11.1 Information on toxicological effects

To the best of our knowledge, the chemical, physical, and toxicological properties of this product have not been thoroughly investigated.

Acute toxicity:

Inhalation LC50 Inhalation - mouse - 10 h - 18 mg/l	Ingestion LD50 Oral - mouse - 5 mg/kg	Skin contact No data available
Eye contact No data available	Respiratory or skin sensitization No data available	Aspiration hazard No data available
LD50 Intraperitoneal - Rat - 0.05 mg/kg; Mouse - 0.0325 mg/kg	LD50 Intravenous - mouse - 0.06 mg/kg	

Mutagenicity No data available

Carcinogenicity: No data available

Teratogenicity: No data available

Reproductive/fertility toxicity: No data available

Specific target organ toxicity, single exposure: Inhalation—may cause respiratory irritation

Specific target organ toxicity, repeated exposure: No data available

Additional information: RTECS: GT2810000. Stomach - Irregularities - Based on Human Evidence

Section 12: Ecological Information

12.1 Toxicity: No data available

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB assessment: No data available

12.6 Other adverse effects: Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Product: Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. All waste must be handled and disposed according to local, state, and federal regulations.
Contaminated packaging: All waste must be handled and disposed according to local, state, and federal regulations. Refer to sections 7 and 8 for safe handling guidance.

Section 14: Transport Information

DOT, Land Transport ADR/RID (cross-border), Maritime Transport IMDG, Air Transport ICAO-TI and IATA-DGR
UN Number: 2811 **UN Proper shipping name:** Toxic solids, organic, n.o.s. (Microcystin LR)
Transport hazard class(es): 6.1—POISON **Packing group:** I **IMDG EMS No:** F-A, S-A; Marine pollutant: No
IATA Passenger: Not permitted for transport.
Special considerations: Transport in accordance with local, state, and federal regulations. See section 7 for handling

Section 15: Regulatory Information

SARA Title III, Section 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA Title III, Section 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard
State Right-to-Know
Massachusetts: Not applicable
Pennsylvania: Microcystin LR, CAS No. 101043-37-2
New Jersey: Microcystin LR, CAS No. 101043-37-2
California: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16: Other information

This information is based on our present knowledge. While Abraxis, Inc. believes that the data contained herein are factual and the opinions expressed represent a best effort to present accurate information, the data are not to be taken as a warranty or representation for which Abraxis, Inc. assumes legal responsibility. The information shall not be taken as being all-inclusive and is to be used only as a guide. The data are offered solely for the user's consideration, investigation, and verification. These suggestions should not be confused with either state, municipal, or insurance requirements, or with national safety codes and constitute no warranty. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state, and local regulations.

All materials and mixtures may present unknown hazards and should be used with caution. Since Abraxis, Inc. cannot control the methods, volumes, or conditions of use of this product, Abraxis, Inc. shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material. This product is sold for research use only. It is not for any human or animal therapeutic or clinical diagnostic use.

Date this SDS was prepared: 9/19/2018

Version: 4

Changes from previous version: Section 11 clarified.