



SAFETY DATA SHEET

According to OSHA Hazard Communication Standard 29 CFR 1910.1200; GHS 4th Revision

SECTION 1 IDENTIFICATION

| | |
|-----------------|---|
| Product Name | MICROCAT®-ALN Pond Treatment |
| Identified uses | Maintaining the clarity in water bodies especially ornamental ponds with aeration or waterfalls. It is not recommended for controlling slime buildup on surfaces or for controlling plants and weeds in still or stagnant water bodies. |
| Company | Bioscience, Inc. 2201 Hangar Place, Suite 200 Allentown, PA 18109 Phone: (800) 627-3069 (484) 245-5232 |
| Website | http://www.bioscienceinc.com |

SECTION 2 HAZARD IDENTIFICATION

| | | |
|--------------------------|--|-------------|
| Classification | Category | H-statement |
| Skin Irritant | 2 | H315 |
| Eye irritant | 2A | H319 |
| Hazard pictograms | | |
| Signal words | Warning | |
| Hazard statements | Causes skin irritation (H315) Causes serious eye irritation (H319) | |
| Precautionary statements | P264; Wash thoroughly after handling. P280; Wear protective gloves, clothing, and eye protection. P302 + P352; IF ON SKIN: Gently wash area with soap and plenty of water. P305 + P351 + P338; IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332 + P313; If skin irritation occurs, get medical attention/advice. P337 + P313; If eye irritation persists: Get medical attention/advice. P362 + P364; Take off contaminated clothing and wash it before reuse. | |
| Further information | Crystalline silica is a known cause of silicosis (a non-cancerous lung disease). Prolonged and/or repeated inhalation must be avoided. | |
| Other hazards | | |

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Identity

Common name

Synonyms

Inorganic flocculent aids with non-pathogenic, naturally-occurring microorganisms absorbed on wheat bran and corn gluten

Hazardous Components

Chemical Name (Concentration)

| | |
|-----------------------------|------------|
| Dolomite (<10 %) | 16389-88-1 |
| Aluminum sulfate (< 2%) | 10043-01-3 |
| Protease (<1%) | 9014-01-1 |
| Amylase (<1%) | 9000-90-2 |
| Crystalline silica (< 0.1%) | 14808-60-7 |

Non-Hazardous Components

Name

| | |
|------------------------|-------------|
| Wheat bran | 116469-86-4 |
| Corn gluten | 66071-96-3 |
| Diatomaceous Earth | 91053-39-3 |
| Sodium montmorillonite | 132-78-9 |

SECTION 4 FIRST-AID MEASURES

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| Eye | Flush eyes with water for at least 15 minutes, seek medical attention. |
| Skin | Wash skin with soap and water, remove contaminated clothing. |
| Inhalation | Remove individual to fresh air. If allergic response or difficulty breathing is exhibited, seek medical attention. |
| Ingestion | If swallowed, rinse mouth and throat with tap water, if symptoms persist consult a physician. |
| Most important symptoms/effects, acute and delayed | |
| Further information | |

SECTION 5 FIRE-FIGHTING MEASURES

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| Suitable extinguishing media | Use media appropriate to surrounding materials. This product is not flammable |
| Specific hazards arising from the chemical | Material will become slippery if wet |
| Special protective actions for fire-fighters | |

SECTION 6 ACCIDENTAL RELEASE MEASURES

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| Personal precautions, protective equipment, and emergency procedures | Provide sufficient ventilation, spilled product should be removed immediately to avoid formation of dust |
| Environmental precautions | |
| Methods and materials for containment and cleaning up | Sweep up, dispose to landfill |

SECTION 7 HANDLING AND STORAGE

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|--|--|
| Precautions for safe handling | Provide eye wash capability. Avoid creating dust, adequately ventilate while handling |
| Conditions for safe storage, including any incompatibilities | No special requirements. Contains organic matter which may be explosive as a dust on very high concentrations; generally considered a low explosive hazard |

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

| Name | CAS-No | TLV (ACGIH) | PEL (OSHA) |
|------------------------|-------------|--|-----------------------|
| Dolomite | 16389-88-1 | 10 mg/m ³ | 5 mg/m ³ |
| Crystalline silica | 14808-60-7 | 0.1 mg/m ³ | 0.1 mg/m ³ |
| Aluminum Sulfate | 10043-01-3 | TWA: 2mg/m ³ | |
| Protease | 9014-01-1 | 0.00006 mg/m ³ (as pure protease) | |
| Amylase | 9000-90-2 | None established | |
| Wheat bran | 116469-86-4 | 10 mg/m ³ (nuisance dust) | |
| Corn gluten | 66071-96-3 | 10 mg/m ³ (nuisance dust) | |
| Diatomaceous earth | 91053-39-3 | 10 mg/m ³ (nuisance dust) | |
| Sodium montmorillonite | 1302-78-9 | None established | |

* Specific limits not set for these chemicals. Limits are shown for Particles Not Otherwise Regulated (PNOR) or Particles Not Otherwise Classified (PNOC). First number is for total dust second number { } is for respirable dust

Personal Safety Equipment

| | |
|------------------------|--|
| Eye Protection | Safety goggles |
| Skin Protection | Gloves, long-sleeve shirt, trousers, and/or coveralls |
| Respiratory protection | Dust mask |
| Industrial Hygiene | Maintain good housekeeping. Avoid dusty conditions. Wash hands and exposed skin after contact. Avoid contact with food or food preparation surfaces. If exposure of food surfaces occurs, wash with germicidal detergent or chlorine bleach. Remove and wash contaminated clothing |

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

BASIC PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------------|---------------------------|
| Appearance | Tan granular powder |
| Odour | Mild |
| Odour threshold | Information not available |
| pH | Does Not Apply |
| Melting point /Freezing Point | Information not available |

| | |
|---|-----------------------------------|
| Initial Boiling point and boiling point range | Does Not Apply |
| Flash Point | Does Not Apply |
| Evaporation rate | Does Not Apply |
| Flammability (solid; gas) | Information not available |
| Upper/lower flammability or explosive limits | Does Not Apply |
| Vapour pressure | Does Not Apply |
| Vapour density | Does Not Apply |
| Relative density | Information not available |
| Solubility (ies) | ~ 10% of product is water soluble |
| Partition coefficient: n-octanol/water | Does Not Apply |
| Auto-ignition temperature | Information not available |
| Decomposition temperature | Information not available |
| Viscosity | Does Not Apply |
| Other Physical/Chemical Properties | Information not available |

SECTION 10 STABILITY AND REACTIVITY

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|------------------------------------|---|
| Reactivity | Stable under normal storage and usage conditions |
| Possibility of hazardous reactions | Information not available |
| Conditions to avoid | Freezing or temperature greater than 100°F (40°C) |
| Incompatible materials | Strong acids, bases or oxidizers |
| Hazardous decomposition products | Information not available |

SECTION 11 TOXOLOGICAL INFORMATION

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| Acute toxicity | Eye - Redness, soreness Skin - Redness, rash, burning, dry, itching skin Inhalation - Nasal irritation, headache, cough, shortness of breath Ingestion - Malaise, dizziness, and nausea, gastrointestinal burns |
| Skin Corrosion/Irritation | Mild |
| Serious Eye Damage/Irritation | Mild |
| Respiratory or Skin Sensitization | Mild |
| Ingestion | Mild |
| Germ Cell Mutagenicity | Information not available |
| Carcinogenicity | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP, or OSHA. NTP: x IARC Monographs: x OSHA Regulated: x |
| Reproductive Toxicity | Information not available |
| Specific Target Organ Toxicity – Single Exposure | Information not available |
| Specific Organ Toxicity – Repeated Exposure | Information not available |
| Aspiration Hazard | Information not available |
| General Remarks | Inhalation of dust resulting from inappropriate handling may cause respiratory allergy in susceptible individuals. Product may contain <0.1% crystalline silica (CS). IARC has classified CS as probably carcinogenic for humans (2A). NTP lists CS as a substance which may reasonably be anticipated to be a carcinogen. CS is a known cause of silicosis (a non-cancerous lung disease). This product contains crystalline silica which is considered a health hazard by inhalation. IARC reviewed the literature (Oct., 1996) for polymorphs of crystalline silica and determined that: 1) There is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the forms of quartz and cristobalite from occupational sources. 2) There is inadequate evidence in humans for the carcinogenicity of amorphous silica. 3) There is sufficient evidence in experimental animals for the carcinogenicity of quartz and cristobalite. 4) There is limited evidence in experimental animals for the carcinogenicity of tridymite. 5) There is inadequate evidence in experimental animals for the carcinogenicity of diatomaceous earth. 6) There is inadequate evidence in experimental animals for the carcinogenicity of synthetic amorphous silica. Overall evaluation: Inhaled crystalline silica in the form of quartz and cristobalite from occupational sources is carcinogenic to humans (Group 1). |

SECTION 12 ECOLOGICAL INFORMATION

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| Toxicity | Application of product to potential drinking water sources shall not exceed residual aluminum concentrating of 2mg/m ³ |
| Persistence and degradability | Information not available |

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|---------------------------|---------------------------|
| Bioaccumulative potential | Information not available |
| Mobility in Soil | Information not available |
| Other adverse effects | Information not available |

SECTION 13 DISPOSAL CONSIDERATIONS

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| Methods | Dispose of all wastes in accordance with all Federal, state and local agencies. |
| Containers | n/a |

SECTION 14 TRANSPORTATION INFORMATION

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| UN Number | Mixture not classified as Hazardous according to Regulation (EC) 1272/2008. |
| UN Proper Shipping Name | |
| Transport Hazard Class | |
| Packing Group (if applicable) | |
| Environmental Hazards | |
| Special Precautions for User | |
| Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code | |
| DOT Proper Shipping Name | Chemicals not otherwise indexed (NOI) non-hazardous. |

SECTION 15 REGULATORY INFORMATION

None of the components present in this product are at a level that requires identification under: 1) CERCLA, 2) SARA Title III, 3) 40 CFR 372 (for SARA), or 4) TSCA.

Canada WHIMS: controlled product is hazard class D2A (respiratory sensitizer), toxic class D2B (eye irritant)

All ingredients used are listed on the USEPA TSCA Inventory list.

EU directive 2000_54 regarding risks from biological agents: micro-organisms in Class 1 may be used without restriction.

WGK (Water Hazards Class): 0 non-hazardous to water.

SECTION 16 OTHER INFORMATION

Key: N/A, n/a – Not available

Mixture classified as not dangerous according to Regulation (EC) 1272/2008.

Observe employment restrictions for people.

Components not precisely identified are proprietary or non-hazardous. All chemical ingredients appear on the EPA TSCA inventory

The microbes in this product are Class 1 microbes, defined by the US Centers for Disease Control as not likely to cause disease in healthy humans and animals. However, contact with open wounds should be avoided; persons who have a compromised immune system or a history of severe allergic response should avoid contact and/or breathing dust or mist from product handling or manufacturing processes.

The information contained in this Safety Data Sheet, as of the issue date, is believed to be true and correct. However, the accuracy or completeness of this information and any recommendations or suggestions are made without warranty or guarantee. Since the conditions of use are beyond the control of our company, it is the responsibility of the user to determine the conditions of safe use of this product. The information in this sheet does not represent analytical specifications; for this information contact Bioscience, Inc. Technical Department