




SAFETY DATA SHEET

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

SECTION 1 IDENTIFICATION

Product Name	MICROCAT®-ALF3 Fish Farming Formula
Identified uses	Maintaining the clarity in water bodies including lakes, fish farms, facultative lagoons, polishing ponds, etc. and in other slow-moving water channels. 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 (20 – 45 %)	CAS-No 16389-88-1
Aluminum sulfate (< 10%)	10043-01-3
Protease (1%)	9014-01-1
Amylase (1%)	9000-90-2
Crystalline silica (< 0.2%)	14808-60-7

Non-Hazardous Components

Name

Wheat bran	CAS-No 116469-86-4
Corn gluten	66071-96-3
Diatomaceous Earth	91053-39-3
Sodium montmorillonite	132-78-9

SECTION 4 FIRST-AID MEASURES

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

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

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

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

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

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	Crystalline silica probably carcinogenic 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 <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

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
Bioaccumulative potential	Information not available

Mobility in Soil	Information not available
Other adverse effects	Information not available

SECTION 13 DISPOSAL CONSIDERATIONS

Methods Containers	Dispose of all wastes in accordance with all Federal, state and local agencies. n/a
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SECTION 14 TRANSPORTATION INFORMATION

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