



SAFETY DATA SHEET

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

SECTION 1 IDENTIFICATION

Product Name **MICROCAT® - PH Buffer Blend**

Identified uses Used to buffer acid buildup in soil, sludge, and groundwater bioremediation programs.

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SECTION 2 HAZARD IDENTIFICATION

Classification	Category	H-statement
Eye irritation	2B	H320
Skin irritation	2	H315
Corrosive to metals	1	H290

Hazard pictograms



Signal words

Warning

Hazard statements

Causes skin irritation (H315)

Causes eye irritation (H320)

May be corrosive to metals (H290)

Precautionary statements

P234 – Keep only in original container.

P264 – Wash thoroughly after handling.

P280 – Wear protective gloves.

P302 + P352 – IF ON SKIN: Wash 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 advice/attention.

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

P362 + P364 – Take off contaminated clothing and wash it before reuse.

P390 – Absorb spillage to prevent material damage.

P406 – Store in corrosive resistant container.

Further information

Other hazards

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Identity

Common name

Synonyms

mixture of carbonate and bicarbonate salts

Hazardous Components

Chemical Name (Concentration)

CAS-No

Non-Hazardous Components

Name

CAS-No

Sodium bicarbonate

144-55-8

Sodium carbonate

497-19-8

SECTION 4 FIRST-AID MEASURES

Eye	Mild to severe irritant to the eyes. May cause redness, irritation and/or conjunctivitis. In case of contact with eyes, flush eyes with low pressure water for at least 15 minutes holding eyelids open. If irritation persists, seek medical attention.
Skin	Mild to severe irritant of the skin. May cause intense destruction of abraded skin. It is recommended that prolonged direct contact with skin be avoided. In case of contact with skin, wash skin with water for 15 minutes. Remove contaminated clothing and wash.
Inhalation	May cause irritation, sore throat and coughing if inhaled. Avoid inappropriate handling which may result in dust generation. If inhaled, remove from contaminated area to fresh air. Report situation. Seek medical attention if allergic response exhibited.
Ingestion	Ingestion of material may cause corrosion of gastric mucosa with sore throat and pain. May cause distention of the stomach, possible rupture. Renal injury will occur over 1g/kg. If swallowed, drink 2-4 glasses of water. Induce vomiting or perform gastric lavage if large amounts are ingested. Get medical attention.
Most important symptoms/effects, acute and delayed	
Further information	

SECTION 5 FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, carbon dioxide, chemical foam or water fog
Specific hazards arising from the chemical	Contain water runoff. Negligible hazard when exposed to flame.
Special protective actions for fire-fighters	Self-contained breathing apparatus recommended for fire fighters if large amount is present.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures	Provide sufficient ventilation.
Environmental precautions	None
Methods and materials for containment and cleaning up	Spilled product should be removed immediately to avoid formation of dust. Contain spill, sweep up avoiding airborne dust. Provide sufficient ventilation. Avoid wash down except for small traces.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling	Avoid formation of dust. Provide adequate ventilation of the room when handling this product. Provide eyewash capability.
Conditions for safe storage, including any incompatibilities	None

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Name	CAS-No	TLV (ACGIH)	PEL (OSHA)
Sodium bicarbonate	144-55-8		10 mg/m ³
Sodium carbonate	497-19-8		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 glasses with side shields or face shield, or chemical goggles.
Skin Protection	Wear long-sleeve shirt, trousers, safety shoes, gloves (rubber or vinyl).
Respiratory protection	Dust mask or respirator for particle removal (NIOSH).
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	White crystalline powder
Odour	No odour

Odour threshold	Information not available
pH	Does Not Apply
Melting point /Freezing Point	260°C (500°F)
Initial Boiling point and boiling point range	Does Not Apply
Flash Point	Does Not Apply
Evaporation rate	1 (butylacetate = 1)
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)	7% at 0°C
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	Specific Gravity at 25°C – 2.2 – 2.5 (H ₂ O = 1)

SECTION 10 STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions and use.
Possibility of hazardous reactions	None known
Conditions to avoid	Exposure to strong acid can cause violent reaction with evolution of heat and carbon dioxide. Exposure to hot aluminum can cause explosive reaction with evolution. Exposure to ammonium and silver nitrate can cause explosive reaction upon heating. Exposure to aromatic amine and a chloronitro compound can cause a reaction with evolution of heat. Exposure to 2,4 dinitrotoluene can increase explosiveness. Exposure to flourine can cause violent ignition. Exposure to burning lithium releases radioactive sodium. Exposure to phosphorus pentoxide can cause a highly exothermic reaction. Exposure to hot sodium sulfide can cause an explosive reaction on exposure to water. Exposure to sulfuric acid can cause a violent eruption. Exposure to 2,4,6 trinitrotoluene can reduce explosion temperature. Exposure to zinc can be corrosive.
Incompatible materials	None known
Hazardous decomposition products	None known

SECTION 11 TOXOLOGICAL INFORMATION

Acute toxicity	Information not available
Skin Corrosion/Irritation	Mild
Serious Eye Damage/Irritation	Mild
Respiratory or Skin Sensitization	Large amounts will require medical attention.
Ingestion	Large amounts will require medical attention
Germ Cell Mutagenicity	Information not available
Carcinogenicity	Information not available
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	Information not available

SECTION 12 ECOLOGICAL INFORMATION

Toxicity	Product degrades in time releasing plant nutrients. Increases pH of media.
Persistence and degradability	Readily biodegradable
Bioaccumulative potential	Information not available
Mobility in Soil	Information not available
Other adverse effects	Information not available

SECTION 13 DISPOSAL CONSIDERATIONS

Methods	Dispose of in accordance with current Federal, State, and Local regulations.
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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	n/a
Transport Hazard Class	n/a
Packing Group (if applicable)	n/a
Environmental Hazards	n/a
Special Precautions for User	n/a
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code	n/a
DOT Proper Shipping Name	Chemicals not otherwise indexed (NOI) non-hazardous.

SECTION 15 REGULATORY INFORMATION

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

OSHA: Not hazardous under 29 CFR 1910.1200

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.

Product is not listed with IARC, NTP, ACGIH or OSHA as a carcinogen.

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.