SAFETY DATA SHEET



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

SECTION 1 IDENTIFICATION

Product Name MICROCAT®-XNL / XNC Ammonia Oxidizing Bioformula

Identified uses Company Used in biological wastewater treatment plants receiving wastes containing ammonia. Monera Technologies Corporation 2201 Hangar Place, Suite 200 Allentown, PA 18109 Phone: (800) 627-3069 (484) 245-5232 www.moneratec.com

H-statement

H333

SECTION 2 HAZARD IDENTIFICATION

Hazard Classification Acute Toxicity – Inhalation Category 5

Hazard pictograms

Hazard statements

Further information Other hazards

Precautionary statements

Signal words



Warning May be harmful if inhaled (H333) P304 + P312 – IF INHALED: Call a POISON CENTER or doctor if feeling unwell. May aggravate asthmatic, bronchial systems

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Identity | |
|---|--|
| Common name | |
| Synonyms | Naturally occurring microbial suspension in water. |
| Hazardous Components | |
| Chemical Name (Concentration) | CAS-No |
| None | |
| Non-Hazardous Components | |
| Name | CAS-No |
| Viable bacterial cultures (nitrifying) in water (> 95%) | 7732-18-5 |
| Ammonia salts (Trace) | |
| Nitrate salts (Trace) | |

SECTION 4 FIRST-AID MEASURES

EyeProduct is not known to cause eye irritation. However, it is recommended that direct contact with eyes be avoided. In case of
contact with eyes, flush eyes with low pressure water for at least 15 minutes. If irritation persists, seek medical attention.SkinMay lead to opportunistic infection of broken skin. In case of contact with skin, wash skin with soap and water. Remove
contaminated clothing and wash. If irritation persists seek medical attention.InhalationMay aggravate asthmatic, bronchial systems. If inhaled, remove from contaminated area to fresh air. Report situation. Seek
medical attention if allergic response exhibited.IngestionIngestion of material may cause gastric disturbance. If swallowed, rinse mouth and throat with tap water. Seek medical attention.

Most important symptoms/effects, acute and delayed Further information

MSDS Created: 03/99

SECTION 5 FIRE-FIGHTING MEASURES

| Suitable extinguishing media Specific hazards arising from the chemical | Dry chemical, CO_2 , chemical foam or water fog |
|--|---|
| Special protective actions for fire-fighters | |

SECTION 6 ACCIDENTAL RELEASE MEASURES

| Personal precautions, protective equipment, and emergency | Advice for emergency responders: protective equipment see section 8. |
|---|---|
| procedures Environmental precautions | |
| Methods and materials for containment and cleaning up | Wash down area with detergent and thoroughly rinse. Dispose to treatment plant or soil. |

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling Conditions for safe storage, including any incompatibilities Safety glasses or eye shield recommended. No special requirements.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

| Name | CAS-No | TLV (ACGIH) | PEL (OSHA) |
|---|-----------|-----------------------------------|------------------|
| Viable bacterial cultures (nitrifying) in water | 7732-18-5 | None established | None Established |
| Ammonia salts | | 35 mg/m ³ (ammonia) | Ammonia salts |
| Nitrate salts | | 5 mg/m ³ (nitric acid) | Nitrate salts |

* 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 |
|-----------------|-----------|
|-----------------|-----------|

| reisonal salety Equipment | |
|---------------------------|--|
| Eye Protection | Safety glasses |
| Skin Protection | Not required |
| Respiratory protection | None required provide adequate ventilation. |
| Industrial Hygiene | Maintain good housekeeping. Wash hands and exposed skin after contact. Avoid contact with food or food |
| | preparation surfaces. Remove and wash contaminated clothing. |

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

| BASIC PHYSICAL AND CHEMICAL PROPERTIES | | |
|---|---------------------------|--|
| Appearance | Light pink to red liquid | |
| Odour | mild odor | |
| Odour threshold | Information not available | |
| рН | 6 - 8 | |
| Melting point /Freezing Point | Information not available | |
| Initial Boiling point and boiling point range | Information not available | |
| Flash Point | Information not available | |
| Evaporation rate | Information not available | |
| Flammability (solid; gas) | Information not available | |
| Upper/lower flammability or explosive limits | Information not available | |
| Vapour pressure | Information not available | |
| Vapour density | Information not available | |
| Relative density | Information not available | |
| Solubility (ies) | 99% | |
| Partition coefficient: n-octanol/water | Information not available | |
| Auto-ignition temperature | Information not available | |
| Decomposition temperature | Information not available | |

SECTION 10 STABILITY AND REACTIVITY

| Reactivity | Stable under normal use and 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 | Information not available |
|--|--|
| Skin Corrosion/Irritation | May exhibit dermal sensitivity. |
| Serious Eye Damage/Irritation | May be infected by viable organisms. |
| Respiratory or Skin Sensitization | Coughing, shortness of breath may occur. |
| Ingestion | Gastric disturbance on massive ingestion. |
| Germ Cell Mutagenicity | Information not available |
| Carcinogenicity | NTP: no |
| | IARC Monographs: No |
| | OSHA Regulated: No |
| 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 | May experience allergic reaction on contact. |
| | |

SECTION 12 ECOLOGICAL INFORMATION

| Information not available | |
|---------------------------|---|
| Readily biodegradable | |
| Information not available | |
| Information not available | |
| Information not available | |
| | Readily biodegradable Information not available Information not available |

SECTION 13 DISPOSAL CONSIDERATIONS

MethodsDispose of all wastes in accordance with all Federal, state and local agencies.Containersn/a

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

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

SECTION 16 OTHER INFORMATION

Key: N/A, n/a – Not available

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 Monera Technologies Corporation, Technical Department.