



FoodChek Systems Inc. **Material Safety Data Sheet**

Section 1- Product and Company Information

| | |
|------------------------|---|
| Product Name | ActeroTM Listeria Enrichment Media |
| Catalog Number | FCM-011 |
| Manufacturer | FoodChek Systems |
| Address | 1414 8th St S.W. Calgary, Alberta |
| Phone | 1 403 298 6357 |
| Emergency Phone | 1-877-298-0208 |

Section 2- Composition/Information on Ingredients

Chemical Characterization

Description: This product contains a mixture of the substances listed below along with nonhazardous additions. Hazardous ingredients within the product that are not listed below are at concentrations lower than the regulatory threshold limits specified by 29 CFR 1910.1200.

| CAS# | Hazardous Ingredients |
|-------------|------------------------------|
| 1132-61-2 | MOPS Free Acid |
| 7647-14-5 | Sodium Chloride (NaCl) |
| | Proprietary Reagent FR-003 |
| | Proprietary Reagent FR-004 |
| | Proprietary Reagent FR-005 |

Section 3- Hazardous Identification

Hazard Overview

| | | |
|-----------------|-----------|----------------|
| Inhalation? Yes | Skin? Yes | Ingestion? Yes |
|-----------------|-----------|----------------|

Health Hazards: IRRITANT. Irritating to eyes, skin, and respiratory system. May be harmful if absorbed through the skin or ingested. **Signs and Symptoms of Exposure:** May cause irritation to the eyes, mucous membranes, and upper respiratory tract. May be harmful if inhaled. Ingestion can cause dehydration and congestion in internal organs.

Medical Conditions Generally Aggravated by Exposure: Ingestion can cause a fall in blood pressure, abdominal pain, nausea, and vomiting. The toxicity of phosphates is their ability to sequester calcium. Chronic exposure of phosphates may sequester calcium and cause calcium

phosphate deposits in the kidneys. Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Section 4- First Aid Measures

- Inhalation** If inhaled, supply fresh air or oxygen. Seek medical attention. If breathing is difficult, give oxygen. In case of unconsciousness, place patient on side position for transportation.
- Ingestion** If swallowed, wash mouth out with water provided person is conscious. Seek medical attention immediately.
- Skin Contact** Remove contaminated clothing immediately. Wash with plenty of soap and water for at least 15 minutes. Seek medical attention. Wash clothing before reuse.
- Eye Contact** Rinse opened eye for at least 15 minutes under running water, lifting lower and upper eyelids occasionally. Seek medical attention.

Section 5- Fire Fighting Measures

- Suitable Extinguishing Media** Water Spray, Carbon Dioxide, dry Chemical Powder, or appropriate foam.
- Protective Equipment** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Emits toxic fumes under fire conditions. Firefighters should wear protective equipment and self-contained breathing apparatus..

Section 6- Accidental Release Measures

- Personal Precautions** Shut off all sources of ignition, ventilate spill area. Consider need for evacuation. Wear suitable protective clothing, gloves, and eye protection. Avoid inhalation and contact with skin and eyes. Wear self-containing breathing apparatus, rubber boots, and heavy rubber gloves. Place contaminated material in a chemical waste container.
- Methods for Clean Up** Contact safety officer and ventilate area. Absorb spill with inert material, including dry-lime, sand, or soda ash, then place into a chemical waste container using non-sparking tools. Wash spill site after material pickup is Complete.



Section 7- Handling and Storage

- Safe Handling** Ensure good ventilation / exhaustion and do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not use if skin is cut or scratched.
- Storage** Keep container tightly closed, protect from light, moist air, and steam. Store away from oxidizing agents. Keep away from heat, sparks, and open flame. Storage area should be cool, dry, and away from incompatible materials. Containers of this material may be hazardous when empty since they retain product residues.

Section 8- Exposure Controls and Personal Protective Equipment

- Engineering Controls** Do not use compressed air by filling, discharging or handling the product. Proper ventilation, safety shower, and eye bath required. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
- Personal Protective Equipment** Uniform, lab coat, or disposable lab wear.

- Respiratory** Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Proper ventilation, safety shower, and eye bath required.
- Hand** Compatible chemical-resistant gloves.
- Eye** Safety glasses or chemical goggles to EN 166, 167, and 168.

Section 9- Physical and Chemical Properties

- Physical State** Solid white, granules
- Color** Colorless crystals or white powder,
- Odor** Characteristic odor (NaCl)
- Boiling Point** 1413°C (NaCl) ,
- Melting Point** > 465°C (Potassium Phosphate), 804°C (NaCl)
- Flash Point** N/A
- Autoigniting Point** N/A
- Explosion Limit** N/A
- Vapor Pressure** 1.0 @ 865°C (NaCl)
- Density** (AIR = 1): N/A
- Solubility** Soluble 100 g at 0°C (NaCl)



Section 10- Stability and Reactivity

Stability

Stable. Conditions to Avoid: Moisture, stable under normal storage conditions.

Materials to be Avoided Decomposition Products

Strong oxidizing agents, and strong bases.

Potassium oxides, Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sodium oxides, Sulfur oxides, and Hydrogen chloride gas. Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine.

Section 11- Toxicological Information

Additional Toxicological Information

LD₅₀: ORL-RAT, 3000 mg/kg (Sodium Chloride),

LD₅₀: ORL-RAT, 2 mg/kg, Proprietary Reagent FR-005

Carcinogenicity Classification: IARC (International Agency for Research on Cancer): NTP (National Toxicology Program):

Proprietary Reagent FR-005, 2A

Proprietary Reagent FR-005, R

Section 12- Ecological Information

Ecotoxicity

Slightly hazardous for water.

Toxicity to fish: LC₅₀: *Lepomis macrochirus* (Bluegill) – 1,294.6 mg/L – 96 hours (Sodium Chloride)

Section 13- Disposal Considerations

Waste Disposal

Dispose in accordance with all applicable federal, state, and local environmental regulations. If any questions arise, contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.



Section 14- Transportation Information

| | |
|------------------------------|--|
| DOT Hazard Class | *These chemicals are not regulated for transportation. |
| Shipping Name | N/A |
| Identification Number | N/A |
| Packing Group | N/A |

Section 15- Regulations

EU Regulations

Hazard Symbol(s):

MOPS Free Acid: Xi (Irritant)

Sodium Chloride: Xi (Irritant)

Proprietary Reagent FR-003: Xi (Irritant)

Proprietary Reagent FR-004: Xi (Irritant)

Proprietary Reagent FR-005: T (Toxic)

Risk Phrases:

MOPS Free Acid: R 36 / 37 / 38, Irritating to eyes, respiratory system, and skin.

Sodium Chloride: R 36 / 38, Irritating to eyes and skin.

Proprietary Reagent FR-003: R 36 / 37 / 38, Irritating to eyes, respiratory system, and skin.

Proprietary Reagent FR-004: R 36 / 37 / 38, Irritating to eyes, respiratory system, and skin.

Proprietary Reagent FR-005: R 25, Toxic if swallowed

Safety Phrases:

MOPS Free Acid: S 22 / 24 / 25, Do not breathe dust. Avoid contact with skin and eyes.

Sodium Chloride: S 24 / 25 / 26, Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Proprietary Reagent FR-003: S 26 / 36, In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

Proprietary Reagent FR-004: S 22 / 24 / 25, Do not breathe dust. Avoid contact with skin and eyes.

Proprietary Reagent FR-005: S 7 / 45 / 60, Keep container tightly closed. In case of accident or if you feel unwell, seek medical advice immediately. This material and its container must be disposed of as hazardous waste.



Section 16- Other Information

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. These suggestions should not be confused with state, municipal or insurance requirements, and constitute No Warranty. Alpha Biosciences or FoodChek Systems shall not be held liable for any damage resulting from handling or from contact with the above product.

