



Safety Data Sheet – (SDS)

SECTION 1 – Identification

Product Name: ActeroTM Listeria Enrichment Media
Product Number(s): FCM-011, FCM-022, FCM-023, FCM-199, FCM-201, FCM-202, FCM-257, FCM-259

Relevant identified uses of the substance or mixture and restrictions of use
Use of substance: Non-hazardous growth medium

Restrictions of use: All uses not specified in this section or in section 7.3

Details of the supplier of the safety data sheet Manufacturer/supplier

FoodChek Systems Inc.
Suite 450, 1414 – 8 St. S.W.
Calgary, Alberta, Canada
T2R 1J6

Emergency Phone Number: 1-877-298-0208

SECTION 2 – Hazard(s) Identification

Classification of the substance mixture: Hazcom2012:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315

Label elements:

Hazcom 2012: Warning



Hazard statements:

Acute Tox. 4: H302 - Harmful if swallowed
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand
P102: Keep out of reach of children
P264: Wash thoroughly after use
P270: Do not eat, drink or smoke when using this product
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302+P352: IF ON SKIN: Wash with plenty of soap and 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





P330: Rinse mouth
P337+P313: If eye irritation persists: Get medical advice/attention
P501: Dispose of contents and / or their container according to the separated collection system used in your municipality

Substances that contribute to the classification:

4-morpholinopropanesulphonic acid; Lithium Chloride

Other hazards which do not result in classification: Non-applicable



Substances:

Non-applicable

SECTION 3 – Composition / Information on Ingredients

Mixture of substances

In accordance with Appendix D to § 1910.1200, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 1132-61-2	4-morpholinopropanesulphonic acid Eye Irrit. 2: H319 Skin Irrit. 2: H315 STOT SE 3: H335 - Warning	 10 - <25 %
CAS: 7447-41-8	Lithium Chloride Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	 10 - <25 %

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4 – First Aid Measures

Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes.





If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5 – Fire-Fighting Measures

Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, etc...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

Methods and materials for containment and cleaning up:





It is recommended:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

Reference to other sections:

See sections 8 and 13.

SECTION 7 – Handling and Storage

Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.:	2 °C
Maximum Temp.:	25 °C
Maximum time:	48 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.





SECTION 8 – Exposure Controls/Personal Protection


Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment


Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

Appropriate engineering controls:

- A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which should meet the requirement of 29 CFR 1910.132
- B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the professional exposure limits are exceeded. C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using chemical protection gloves

D.- Ocular and facial protection

Pictogram	PPE	Remarks
 Mandatory Face protection	Panoramic glasses against liquid splash	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.



E.- Bodily protection

Pictogram	PP	Remarks
	Work clothing	For professional use only.
	Anti-slip work shoes	None





F.- Additional emergency measures

Emergency measure	Standard	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9 – Physical and Chemical Properties

Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Solid
Appearance:	Characteristic
Color:	Beige
Odor:	Solvent

Volatility:

Boiling point at atmospheric pressure:	Non-applicable*
Vapor pressure at 20 °C:	Non-applicable*
Vapor pressure at 50 °C:	Non-applicable*
Evaporation rate at 20 °C:	Non-applicable*

Product description:

Density at 20 °C:	Non-applicable*
Relative density at 20 °C:	Non-applicable*
Dynamic viscosity at 20 °C:	Non-applicable*
Kinematic viscosity at 20 °C:	Non-applicable*
Kinematic viscosity at 40 °C:	Non-applicable*
Concentration:	Non-applicable*
pH:	Non-applicable*
Vapor density at 20 °C:	Non-applicable*
Partition coefficient n-octanol/water 20 °C:	Non-applicable*
Solubility in water at 20 °C:	Non-applicable*
Solubility properties:	Non-applicable*
Decomposition temperature:	Non-applicable*
Melting point/freezing point:	Non-applicable*

Flammability:

Flash Point:	Non Flammable (>60°C)
Auto ignition temperature:	Non-applicable*
Lower flammability limit:	Non-applicable*
Upper flammability limit:	Non-applicable*





Other information:

Surface tension at 20 °C: Non-applicable*
Refraction index: Non-applicable*

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10 – Stability and Reactivity

Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

Chemical stability:

Chemically stable under the conditions of storage, handling and use.

Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Incompatible materials:

Acids	Water	Combustive materials	Combustible	Other
Not applicable	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong

Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compound

SECTION 11 – Toxicological information

Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion:

Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.





B- Inhalation:

Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.

Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes:

Contact with the skin: Produces skin inflammation.

Contact with the eyes: Produces eye damage after contact.

CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.

Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.

Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT)-time exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute		Genus
	Route	Dose	
4-morpholinopropanesulphonic acid CAS: 1132-61-2	LD50 oral	2000 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Lithium Chloride CAS: 7447-41-8	LD50 oral	526 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	





SECTION 12 – Ecological Information

The experimental information related to the eco-toxicological properties of the product itself is not available

Eco toxicity (aquatic and terrestrial, where available):	Not available
Persistence and degradability:	Not available
Bio accumulative potential:	Not available
Mobility in soil:	Not available
Results of PBT and vPvB assessment:	Non-applicable
Other adverse effects:	Not described

SECTION 13 – Disposal Considerations

Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non- dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14 – Transportation Information

UN Number	Not classified as hazardous for transportation
UN proper shipping name DOT, ADR/RID, ICAO/IATA, IMDG	Not applicable
Transport hazard class(es) DOT, ADR/RID, ICAO/IATA, IMDG	Not applicable
Packing group DOT, ADR/RID, ICAO/IATA, IMDG	Not applicable
Environmental hazards	No
Transport in bulk according to Annex II of Marpol 73/78 & the IBC Code	Not applicable
Special precautions for user	Not applicable





SECTION 15 – Regulatory Information

Safety, health and environmental regulations specific for the product in question: Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The Toxic Substances Control Act (TSCA)
SARA Title III - Community Right-to-Know Reporting Requirements (Sections 311-312)
SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313)
Emergency Planning and Community Right-to-Know Act (EPCRA)

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 – Safety data sheets

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation
H302: Harmful if swallowed
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

SECTION 16 – Other information

Hazcom 2012:

Acute Tox. 4: H302 - Harmful if swallowed
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code





IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organisation
COD:	Chemical Oxygen Demand
BOD5:	5-day biochemical oxygen demand
BCF:	Bioconcentration factor
LD50:	Lethal Dose 50
CL50:	Lethal Concentration 50
EC50:	Effective concentration 50
Log-POW:	Octanol–water partition coefficient
Koc:	Partition coefficient of organic carbon

The above information, to the best of our knowledge, is accurate. FoodChek Systems Inc. and its Partners assumes no liability whatsoever for the accuracy or completeness of the information stated above. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards may be described, we cannot guarantee these are the only hazards that exist

-END OF SAFETY DATA SHEET-

