

### Material Safety Data sheet

#### Section 1: Product and Company Information

<b>Product Name</b>	FRASER Listeria Ammonium iron (III) Supplement		
<b>Catalogue Number</b>	iS47089	<b>Technical Phone</b>	0098 21 66787291
<b>E-mail</b>	ibresco@gmail.com	<b>Fax No</b>	09391003565
<b>Company Address</b>	Zist Kavosh Iranian, No.432, East Kokab Av,45 Metri Golshahr, Karaj, Iran.		

#### Section 2: Hazards Identification

**Classification of the substance or mixture**

Not a hazardous substance or mixture.

**GHS Label elements, including precautionary statements**

Not a hazardous substance or mixture.

**Hazards not otherwise classified (HNOC) or not covered by GHS**

none

#### Section 3: Composition / Information on Ingredients

**Mixture**

Component	Classification	Concentration*
<b>Ammonium iron (III) citrate</b>		
Formula	C6H11FeNO7	<= 100 %
CAS-No.	1185-57-5	
EC-No.	214-686-6	

\* Weight %

#### Section 4: First Aid Measures

**Description of first-aid measures**

<b>If inhaled</b>	After inhalation: fresh air.
<b>In case of skin contact</b>	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
<b>In case of eye contact</b>	After eye contact: rinse out with plenty of water. Remove contact lenses.
<b>If swallowed</b>	After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

**Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

**Indication of any immediate medical attention and special treatment needed**

No data available

## Section 5: Fire Fighting Measures

### Extinguishing media

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NOx)

Iron oxides

Not combustible.

Fire may cause evolution of:

nitrogen oxides

Ambient fire may liberate hazardous vapors.

### Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

### Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### Environmental precautions

Do not let product enter drains.

### Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### Reference to other sections

For disposal see section 13.

## Section 7: Handling and Storage

### Precautions for safe handling

For precautions see section 2.

### Conditions for safe storage, including any incompatibilities

**Storage conditions** Protected from light. Tightly closed. Dry.  
Recommended storage temperature see product label.

**Storage class** Storage class (TRGS 510): 13: Non-Combustible Solids

## Section 8: Exposure Controls / Personal Protection

### Control parameters

#### Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Ammonium Iron (III) citrate	1185-57-5	TWA	1 mg/m <sup>3</sup>	Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)

Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.			
		TWAEV	1 mg/m <sup>3</sup>	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	1 mg/m <sup>3</sup>	Canada. British Columbia OEL
		STEL	2 mg/m <sup>3</sup>	Canada. British Columbia OEL
		TWA	1 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)

### Exposure controls

#### Appropriate engineering controls

Change contaminated clothing. Wash hands after working with substance.

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

##### Skin protection

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

##### Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Control of environmental exposure

Do not let product enter drains.

## Section 9: Physical and Chemical Properties

Physical state	Solid
Color	Dark brown
Odor	No data available
Odor Threshold	No data available
Melting point/freezing point	OECD Test Guideline 102Decomposes before melting.
Initial boiling point and boiling range	No data available
Evaporation rate	No data available
Flammability (solid, gas)	The product is not flammable.
Upper/lower flammability or explosive limits	No data available
Flash point	No data available
Vapor pressure	No data available

Vapor density	No data available
Autoignition temperature	27 °C (81 °F) at 966 hPa does not ignite
Decomposition temperature	No data available
pH	6.9 at 1% at 23.3 °C (73.9 °F) - OECD Test Guideline 122
Viscosity	No data available
Water solubility	580.8 g/l at 25 °C (77 °F) - OECD Test Guideline 105
Partition coefficient: n-octanol/water	log Pow: -0.737 at 25 °C (77 °F) - Bioaccumulation is not expected.
Density	1.064 g/cm <sup>3</sup> at 26 °C (79 °F) at 978 hPa - OECD Test Guideline 109
Relative density	No data available
Explosive properties	No data available
Oxidizing properties	No data available
<b>Other safety information</b>	No data available

### Section 10: Stability and Reactivity

#### Reactivity

No data available

#### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

#### Possibility of hazardous reactions

No data available

#### Conditions to avoid

no information available

#### Incompatible materials

Strong oxidizing agents

#### Hazardous decomposition products

In the event of fire: see section 5

### Section 11: Toxicological Information

#### Information on toxicological effects

##### Mixture

LD50 Oral - Rat - male and female - > 2,000 mg/kg  
(OECD Test Guideline 401)

Remarks: (ECHA)

Inhalation: No data available

##### Acute toxicity

LD50 Dermal - Rabbit - male and female - > 8,000 mg/kg

Remarks: (in analogy to similar products)

(ECHA)

The value is given in analogy to the following substances: 1,2,3,4-butanetetracarboxylic acid

Skin - Rabbit

##### Skin corrosion/irritation

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

Remarks: (ECHA)

##### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

	Remarks: (ECHA)
<b>Respiratory or skin sensitization</b>	No data available Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
<b>Germ cell mutagenicity</b>	Remarks: (ECHA) Test Type: Chromosome aberration test in vitro Test system: Chinese hamster fibroblasts Metabolic activation: without metabolic activation Method: OECD Test Guideline 473 Result: negative
<b>Carcinogenicity</b>	Remarks: (ECHA) No data available
<b>Reproductive toxicity</b>	No data available
<b>Specific target organ toxicity - single exposure</b>	No data available
<b>Specific target organ toxicity - repeated exposure</b>	No data available
<b>Aspiration hazard</b>	No data available

**Additional Information** Overdose of iron compounds may have a corrosive effect on the gastrointestinal mucosa and be followed by necrosis, perforation, and stricture formation. Several hours may elapse before symptoms that can include epigastric pain, diarrhea, vomiting, nausea, and hematemesis occur. After apparent recovery a person may experience metabolic acidosis, convulsions, and coma hours or days later. Further complications may develop leading to acute liver necrosis that can result in death due to hepatic coma., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Section 12: Ecological Information

<b>Toxicity</b>	
Toxicity to fish	static test LC50 - Fish - > 100 mg/l - 96 h (OECD Test Guideline 203) Remarks: The value is given in analogy to the following substances: Diammonium hydrogen citrate
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202) Remarks: The value is given in analogy to the following substances: Diammonium hydrogen citrate
Toxicity to algae	Remarks: The value is given in analogy to the following substances: Diammonium hydrogen citrate Remarks: The value is given in analogy to the following substances: Diammonium hydrogen citrate

<b>Persistence and degradability</b>	
Biodegradability	Biochemical oxygen demand - Exposure time 14 d Result: 77 % - Readily biodegradable. Remarks: (ECHA) The value is given in analogy to the following substances: citric acid
<b>Bio accumulative potential</b>	No data available

<b>Mobility in soil</b>	No data available
<b>Results of PBT and vPvB assessment</b>	PBT/vPvB assessment not available as chemical safety assessment not required/not Conducted.
<b>Other adverse effects</b>	No data available

### Section 13: Disposal Consideration

**Waste treatment methods**

**Product**

Offer surplus and non- recyclable solutions to a licensed company. Contact a licensed professional waste disposal service to dispose of this material

**Contaminated packaging**

Dispose of as unused product.

### Section 14: Transport Information

<b>TDG</b>	Not regulated as a dangerous good
<b>IMDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods
<b>Further information</b>	Not classified as dangerous in the meaning of transport regulations.

### Section 15: Regulatory Information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

### Section 16: Other Information

**DISCLAIMER**

For R&D use only. Not for drug, household or other uses.

**WARRANTY**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. *ibresco* shall not be held liable for any damage resulting from handling or from contact with the above product.

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