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SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
223510	BD Difco™ Universal Preenrichment Broth	No data available

Other means of identification

SDS number: 088100175863

Recommended restrictions

Recommended use: Laboratory Chemicals
Restrictions on use: None known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: BD, Integrated Diagnostic Solutions
Address: 7 Loveton Circle
Sparks, MD 21152
USA

Telephone: 1 844 823 5433
Fax: not available
Contact Person: Tech Services

Emergency telephone number: CHEMTREC 1 800 424 9300

2. Hazard(s) identification

Hazard Classification

Not classified

Label Elements

Hazard Symbol: No symbol

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Signal Word: No signal word.

Hazard Statement: Not applicable
Precautionary Statements Not applicable

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.	113-24-6	0.5269%
Ammonium iron(III) citrate	No data available.	1185-57-5	0.0263%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

General information: Get medical attention if symptoms occur.

Inhalation: Provide fresh air, warmth and rest, preferably in comfortable upright sitting position.

Skin Contact: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

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Eye contact:	Flush thoroughly with water. If irritation occurs, get medical assistance.
Ingestion:	Get medical attention if symptoms occur.
Personal Protection for First-aid Responders:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Most important symptoms/effects, acute and delayed

Symptoms:	No data available.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	No data available.

5. Fire-fighting measures

General Fire Hazards:	Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Use water spray to keep fire-exposed containers cool.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media:	None known.
Specific hazards arising from the chemical:	None known.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No unusual fire or explosion hazards noted.

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Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	No special precautionary health measures should be needed under anticipated conditions of use.
Methods and material for containment and cleaning up:	No specific clean-up procedure noted.
Environmental Precautions:	Avoid release to the environment.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	No special requirements under ordinary conditions of use and with adequate ventilation.
Safe handling advice:	When using do not eat, drink or smoke. Read and follow manufacturer's recommendations. Use personal protective equipment as required.
Contact avoidance measures:	No data available.

Storage

Safe storage conditions:	Store in a cool, dry place. Keep container tightly closed.
Safe packaging materials:	No data available.

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8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Ammonium iron(III) citrate - as Fe	TWA	1 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	1 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
Ammonium iron(III) citrate	ST ESL	10 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL	1 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
Ammonium iron(III) citrate - as Fe	TWA PEL	1 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	TWA	1 mg/m3	US. ACGIH Threshold Limit Values, as amended (12 2010)
	REL	1 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)

Appropriate Engineering Controls No special requirements under ordinary conditions of use and with adequate ventilation.

Individual protection measures, such as personal protective equipment

General information: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Chemical resistant gloves

Other: Wear a lab coat or similar protective clothing.

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Respiratory Protection:	Respiratory protection not required.
Hygiene measures:	Observe good industrial hygiene practices.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	
Physical state:	solid
Form:	solid
Color:	According to product specification.
Odor:	Characteristic
Odor Threshold:	No data available.
Melting Point:	No data available.
Boiling Point:	No data available.
Flammability:	Not applicable
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	Not applicable
Explosive limit - lower:	Not applicable
Flash Point:	Not applicable
Self Ignition Temperature:	Not determined.
Decomposition Temperature:	Not applicable
pH:	No data available.
Viscosity	
Dynamic viscosity:	Not determined.
Kinematic viscosity:	Not determined.
Flow Time:	Not applicable
Solubility(ies)	
Solubility in Water:	Completely Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	No data available.
Relative density:	No data available.

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Density:	No data available.
Bulk density:	Not applicable
Vapor density (air=1):	Not applicable
Particle characteristics	
Particle Size:	Not applicable
Particle Size Distribution:	Not applicable
Specific surface area:	Not applicable
Surface charge/Zeta potential:	Not applicable
Assessment:	Not applicable
Shape:	Not applicable
Crystallinity:	Not applicable
Surface treatment:	Not applicable

Other information

Metal Corrosion:	Non-corrosive per US Department of Transportation testing protocol.

10. Stability and reactivity

Reactivity:	Material is stable under normal conditions.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Not known.
Conditions to avoid:	Avoid exposure to high temperatures or direct sunlight.
Incompatible Materials:	Strong oxidizers.
Hazardous Decomposition Products:	Not known.

11. Toxicological information

Information on likely routes of exposure

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Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix: 10,845.69 mg/kg
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Dermal

Product:	Not classified for acute toxicity based on available data.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Inhalation

Product:	Not classified for acute toxicity based on available data.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Skin Corrosion/Irritation

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Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Serious Eye Damage/Eye Irritation

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Carcinogenicity

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogens present or none present in regulated quantities

ACGIH: US.ACGIH Threshold Limit Values:
No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:
No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

In vitro

Product:	No data available.
Components:	

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Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

In vivo

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Reproductive toxicity

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Aspiration Hazard

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Information on health hazards

Other hazards

Product:	No data available.

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12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.

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Ammonium iron(III) citrate	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

BOD/COD Ratio

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Bioaccumulative potential

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Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	Log Kow: No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Mobility in soil:

Product	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Results of PBT and vPvB assessment:

Product	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

Other adverse effects:

Other hazards

Product:	No data available.
Components:	
Propanoic acid, 2-oxo-, sodium salt (1:1)	No data available.
Ammonium iron(III) citrate	No data available.

13. Disposal considerations

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General information:	Dispose of waste and residues in accordance with local authority requirements.
Disposal methods:	No specific disposal method required.
Contaminated Packaging:	No data available.

14. Transport information

DOTUN Number:	Not regulated.
UN Proper Shipping Name:	Not regulated.
Transport Hazard Class(es)	
Class:	Not regulated.
Label(s):	Not regulated.
Packing Group:	Not regulated.
Marine Pollutant:	Not regulated.
Limited quantity	Not regulated.
Excepted quantity	Not regulated.
Special precautions for user:	Not regulated.

IMDG

UN Number:	Not regulated.
UN Proper Shipping Name:	Not regulated.
Transport Hazard Class(es)	
Class:	Not regulated.
Subsidiary risk:	Not regulated.
EmS No.:	Not regulated.
Packing Group:	Not regulated.
Environmental Hazards	
Marine Pollutant:	Not regulated.
Special precautions for user:	Not regulated.

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IATA

UN Number:	Not regulated.
Proper Shipping Name:	Not regulated.
Transport Hazard Class(es):	
Class:	Not regulated.
Subsidiary risk:	Not regulated.
Packing Group:	Not regulated.
Environmental Hazards	
Marine pollutant:	Not regulated.
Special precautions for user:	Not regulated.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity
Phosphoric acid, sodium salt (1:2)
Ammonium iron(III) citrate

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Not classified

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances
None present or none present in regulated quantities.

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US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

Chemical Identity
Phosphoric acid, sodium salt (1:2)
Ammonium iron(III) citrate

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity
Phosphoric acid, sodium salt (1:2)

US. Massachusetts RTK - Substance List

Chemical Identity
Phosphoric acid, sodium salt (1:2)

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Phosphoric acid, sodium salt (1:2)

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

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Kyoto protocol
Not applicable

16.Other information, including date of preparation or last revision

Issue Date:	09/01/2021
Version #:	1.1
Further Information:	No data available.
Disclaimer:	Disclaimer: The information contained herein has been obtained from various sources and is believed to be correct as of the date issued. However, neither BD nor any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability for a particular use 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 are described herein, we cannot guarantee that these are the only hazards that exist. BD provides SDS in electronic form so the information may be more easily accessed. Due to the possibility of errors during transmission, BD makes no representations as to the completeness or accuracy of the information.