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SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product No.:	Product name:	Common name(s), synonym(s)
210420	BD Difco™ Tetrathionate Broth Base	No data available
210430	Bottle Tetrathionate Broth Base 500G	No data available

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:	Business Unit Product Stewardship Team
E-mail:	IDS_SDS@bd.com

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	

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 (%)*
Carbonic acid calcium salt (1:1)	No data available.	471-34-1	21.3835%
Bile, extract	No data available.	8008-63-7	2.1384%

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

4. First-aid measures

Description of 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.

Eye contact: Flush thoroughly with water. If irritation occurs, get medical assistance.

Ingestion: Get medical attention if symptoms occur.

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Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms:	No specific symptoms noted.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	IF exposed or concerned: Get medical advice/attention.

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, foam, dry powder or carbon dioxide. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Avoid water in straight hose stream; will scatter and spread fire.
Special hazards arising from the substance or mixture:	None known.

Special protective equipment and precautions for fire-fighters

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

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Accidental release measures:	No data available.
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:	No data available.
Local/Total ventilation:	No data available.
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.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Carbonic acid calcium salt (1:1)	AN ESL		5 µg/m3	TX ESL

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	ST ESL		50 µg/m3	TX ESL
Carbonic acid calcium salt (1:1) - Total	REL		10 mg/m3	NIOSH
Carbonic acid calcium salt (1:1) - Respirable.	REL		5 mg/m3	NIOSH
Carbonic acid calcium salt (1:1) - Respirable particles.	TWA		3 mg/m3	ACGIH
Carbonic acid calcium salt (1:1) - Inhalable particles.	TWA		10 mg/m3	ACGIH
Carbonic acid calcium salt (1:1) - Total dust.	PEL		15 mg/m3	OSHA Z1
Carbonic acid calcium salt (1:1) - Respirable fraction.	PEL		5 mg/m3	OSHA Z1
	TWA		5 mg/m3	OSHA Z1A
Carbonic acid calcium salt (1:1) - Total dust.	TWA		15 mg/m3	OSHA Z1A
Carbonic acid calcium salt (1:1) - Respirable fraction.	TWA		5 mg/m3	TN OEL
Carbonic acid calcium salt (1:1) - Total dust.	TWA		15 mg/m3	TN OEL
	TWA PEL		10 mg/m3	US CA OEL
Carbonic acid calcium salt (1:1) - Respirable fraction.	TWA PEL		5 mg/m3	US CA OEL
Carbonic acid calcium salt (1:1) - Total dust.	TWA		50 millions of particles per cubic foot of air	Z3
Carbonic acid calcium salt (1:1) - Respirable fraction.	TWA		15 millions of particles per cubic foot of air	Z3
Carbonic acid calcium salt (1:1) - Total dust.	TWA		15 mg/m3	Z3
Carbonic acid calcium salt (1:1) - Respirable fraction.	TWA		5 mg/m3	Z3
Carbonic acid calcium salt (1:1) - Total dust.	PEL		15 mg/m3	OSHA Z1

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Carbonic acid calcium salt (1:1) - Respirable fraction.	PEL		5 mg/m3	OSHA Z1
Carbonic acid calcium salt (1:1) - Total dust.	TWA		15 mg/m3	OSHA Z1A
Carbonic acid calcium salt (1:1) - Respirable fraction.	TWA		5 mg/m3	OSHA Z1A
	TWA		5 mg/m3	TN OEL
Carbonic acid calcium salt (1:1) - Total dust.	TWA		15 mg/m3	TN OEL

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

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

Individual protection measures, such as personal protective equipment

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

Skin Protection

Hand Protection: Material: Chemical resistant gloves

Skin and Body Protection: 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:	No data available.

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Flash Point:	Not applicable
Self-ignition:	No data available.
Decomposition Temperature:	No data available.
pH:	No data available.

Viscosity

Dynamic viscosity:	Not determined.
Kinematic viscosity:	Not determined.
Flow Time:	No data available.

Solubility(ies)

Solubility in Water:	Completely Soluble
Solubility (other):	No data available.

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Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	No data available.
Relative density:	No data available.
Density:	No data available.
Bulk density:	No data available.
Vapor density (air=1):	No data available.

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

General information: No information about adverse effects due to exposure.

Information on likely routes of exposure

Inhalation:	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin Contact:	Negligible irritation to skin at ambient temperatures.
Eye contact:	Do not get in eyes.

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Ingestion:	In the event of inhalation (ingestion), seek medical attention immediately

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix, 3,839.94 mg/kg
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Dermal

Product:	ATEmix, 9,353.01 mg/kg
Components:	
Carbonic acid calcium salt (1:1)	LD 50, Rat, > 2,000 mg/kg, 1 = reliable without restrictions, Experimental result, Key study
Bile, extract	No data available.

Inhalation

Product:	Not classified for acute toxicity based on available data.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Skin Corrosion/Irritation

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Serious Eye Damage/Eye Irritation

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Respiratory or Skin Sensitization

Product:	No data available.

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Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Carcinogenicity

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	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 1910.1001-1053), as amended:
No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity
In vitro

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

In vivo

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Reproductive toxicity

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	

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Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Aspiration Hazard

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Information on health hazards

Other hazards

Product:	No data available.

12. Ecological information

General information: This material has not been tested for environmental effects.

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	LC 50, Western mosquitofish (Gambusia affinis), 48 h, > 56,000 mg/lStatic, Mortality
Bile, extract	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

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Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

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BOD/COD Ratio

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Mobility in soil:

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Results of PBT and vPvB assessment:

Product:	No data available.
Components:	
Carbonic acid calcium salt (1:1)	No data available.
Bile, extract	No data available.

Other adverse effects:

Other hazards

Product:	The dangerous properties of the product cannot be evaluated from the available data. Avoid release to the environment.

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13. Disposal considerations

General information:	Dispose of waste and residues in accordance with local authority requirements. The solid and liquid waste should be handled according to their nature and degree of hazardousness.
Disposal methods:	Dispose of waste and residues in accordance with local authority requirements.
Contaminated Packaging:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

14. Transport information

Environmental Hazards

Environmentally Hazardous:	No
Marine Pollutant:	No

IATA

Not Regulated.

IMDG

Not Regulated.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

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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) Proposed 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 1910.1001-1053), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Not classified

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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.

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

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)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

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

Version #: 1.3

Generation date: 08/20/2024

Date of first report version: 04/17/2014

Abbreviations and acronyms:

ACGIH:	US. ACGIH Threshold Limit Values, as amended
NIOSH/GUIDE:	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
OSHA_TRANS:	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
TN OEL:	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
TX ESL:	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
US CA OEL:	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Z1A:	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Z3:	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
ACGIH / TWA:	Time Weighted Average (TWA):
NIOSH/GUIDE / REL:	Recommended exposure limit (REL):
OSHA_TRANS / PEL:	Permissible exposure limit:
TN OEL / TWA:	Time Weighted Average (TWA):
TX ESL / ST ESL:	Short-Term ESL:

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TX ESL / AN ESL:	Annual ESL:
US CA OEL / TWA PEL:	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):
Z1A / TWA:	Time Weighted Average (TWA):
Z3 / TWA:	Time Weighted Average (TWA):

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations

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on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Source of information: European Chemicals Agency (ECHA): Information on Chemicals.

European Chemicals Agency (ECHA): Information on Chemicals.

Further Information: No data available.

Disclaimer

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