



Becton, Dickinson
and Company
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product No.:	Product name:	Common name(s), synonym(s)
364951	TUBE URIN PLC 13X75 4.0 C&S GR	BD Vacutainer® C&S Preservative Urine Tube

Recommended restrictions

Recommended use: Scientific and industrial laboratory use. For In Vitro Diagnostic Use.

Restrictions on use: For External Use Only

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: BD, Integrated Diagnostic Solutions
Address: 1 Becton Drive
Franklin Lakes, NJ 07417
USA

Telephone: 1 800 631 0174
Fax: 1 201 847 4866
Contact Person: Technical Services
E-mail: productcomplaints@bd.com

Emergency telephone number: CHEMTREC 1 800 424 9300

2. Hazard(s) identification

Hazard Classification

Health Hazards

Toxic to reproduction

Category 1B

Label Elements

Hazard Symbol:



Becton, Dickinson
and Company
BD, Franklin Lakes, NJ
07417 USA
www.bd.com



Signal Word: Danger
Hazard Statement: H360FD: May damage fertility. May damage the unborn child.

Precautionary Statements

Prevention: P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: P308+P313: IF exposed or concerned: Get medical advice/attention.

Storage: P405: Store locked up.

Disposal: P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

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 (%)*
Borax (B ₄ Na ₂ O ₇ ·10H ₂ O)	No data available.	1303-96-4	33.89%
Boric acid	No data available.	11113-50-1	22.59%

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



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Version: 1.4
Last revised date: 09/20/2024

4. First-aid measures

Description of first aid measures

General information:	May damage fertility. May damage the unborn child.
Inhalation:	Get medical attention immediately. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin Contact:	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If skin irritation or an allergic skin reaction develops, get medical attention. Due to the small packaging the risk of skin contact is minimal.
Eye contact:	If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor. Due to the small packaging the risk of eye contact is minimal.
Ingestion:	If swallowed, rinse mouth with water (only if the person is conscious). Call a physician or poison control center immediately. Due to the small packaging the risk of ingestion is minimal.
Personal Protection for First-aid Responders:	No data available.
Most important symptoms and effects, both acute and delayed	
Symptoms:	No specific symptoms noted.
Hazards:	Low hazard for recommended handling by trained personnel. Under normal conditions of intended use, this material does not pose a risk to health. Prolonged or repeated exposure may cause: May damage fertility. May damage the unborn child.
Indication of immediate medical attention and special treatment needed	
Treatment:	Get medical advice/attention if you feel unwell.

5. Fire-fighting measures



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

General Fire Hazards:	No unusual fire or explosion hazards noted.
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:	No specific precautions due to the small quantities handled. Use fire-extinguishing media appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid contact with spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Accidental release measures:	No data available.
Methods and material for containment and cleaning up:	Sweep or scoop up and remove. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental Precautions:	Avoid release to the environment.

7. Handling and storage

Handling

Technical measures:	No data available.
Local/Total ventilation:	No data available.



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Version: 1.4
Last revised date: 09/20/2024

Safe handling advice: Low hazard for recommended handling by trained personnel. Observe good laboratory hygiene practices.

Contact avoidance measures: No data available.

Storage

Safe storage conditions: Store in a cool, dry place out of direct sunlight. Store in closed original container at temperatures between 4°C and 25°

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Borax (B ₄ Na ₂ O ₇ ·10H ₂ O)	TWA		10 mg/m ³	OSHA Z1A
	TWA		10 mg/m ³	TN OEL
Borax (B ₄ Na ₂ O ₇ ·10H ₂ O) - Particulate.	ST ESL		50 µg/m ³	TX ESL
	AN ESL		5 µg/m ³	TX ESL
Borax (B ₄ Na ₂ O ₇ ·10H ₂ O)	TWA PEL		5 mg/m ³	US CA OEL
Borax (B ₄ Na ₂ O ₇ ·10H ₂ O) - Inhalable fraction.	TWA		2 mg/m ³	ACGIH
	STEL		6 mg/m ³	ACGIH
Borax (B ₄ Na ₂ O ₇ ·10H ₂ O)	REL		5 mg/m ³	NIOSH
Boric acid - Inhalable fraction.	TWA		2 mg/m ³	ACGIH
	STEL		6 mg/m ³	ACGIH



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

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

Low hazard for recommended handling by trained personnel. Observe good industrial hygiene practices.

Individual protection measures, such as personal protective equipment

Eye/face protection:

It is a good industrial hygiene practice to minimize eye contact. Wear approved chemical safety glasses or goggles where eye exposure is reasonably probable.

Skin Protection

Hand Protection:

Material: Use suitable protective gloves if risk of skin contact.

Skin and Body Protection:

No data available.

Respiratory Protection:

Not relevant, due to the form of the product. None should be needed.



Becton, Dickinson
and Company
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Version: 1.4
Last revised date: 09/20/2024

Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	Solid
Form:	Powder
Color:	White

Odor: Odorless

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: No data available.

Self-ignition: No data available.

Decomposition Temperature: No data available.

pH: No data available.

Viscosity

Dynamic viscosity: Not determined.

Kinematic viscosity: No data available.

Flow Time: No data available.

Solubility(ies)

Solubility in Water: No data available.

Solubility (other): No data available.



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

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
No data available

10. Stability and reactivity

Reactivity:	Material is stable under normal conditions.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	None known. None under normal conditions.
Incompatible Materials:	No common materials and contaminants with which the material may reasonably come into contact.
Hazardous Decomposition Products:	Not likely, due to the form of the product.

11. Toxicological information

General information:	May cause reproductive effects.
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:	Due to the small packaging the risk of skin contact is minimal.
Eye contact:	Due to the small packaging the risk of eye contact is minimal.



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Version: 1.4
Last revised date: 09/20/2024

Ingestion: Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No specific symptoms noted.

Skin Contact: No specific symptoms noted.

Eye contact: No specific symptoms noted.

Ingestion: No specific symptoms noted.

Acute toxicity (list all possible routes of exposure)

Oral

Product: No data available.

Components:

Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.

Boric acid No data available.

Dermal

Product: No data available.

Components:

Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.

Boric acid No data available.

Inhalation

Product: No data available.

Components:

Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.

Boric acid No data available.

Repeated dose toxicity

Product: No data available.

Components:

Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.

Boric acid No data available.

Skin Corrosion/Irritation

Product: No data available.

Components:

Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.

Boric acid No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

Components:



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.
Boric acid No data available.

Respiratory or Skin Sensitization

Product: No data available.
Components:
Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.
Boric acid No data available.

Carcinogenicity

Product: No data available.
Components:
Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.
Boric acid 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:
Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.
Boric acid No data available.

In vivo

Product: No data available.
Components:
Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.
Boric acid No data available.

Reproductive toxicity

Product: Contains a substance/a group of substances with possible risk of harm to the unborn child and with possible risk of impaired fertility.
Components:
Borax ($B_4Na_2O_7 \cdot 10H_2O$) No data available.
Boric acid No data available.

Specific Target Organ Toxicity - Single Exposure



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Version: 1.4
Last revised date: 09/20/2024

Product: No data available.
Components:
Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$) No data available.
Boric acid No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.
Components:
Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$) No data available.
Boric acid No data available.

Aspiration Hazard

Product: No data available.
Components:
Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$) No data available.
Boric acid No data available.

Information on health hazards

Other hazards

Product: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.
Components:
Borax No data available.
($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$)
Boric acid No data available.

Aquatic Invertebrates

Product: No data available.
Components:
Borax No data available.
($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$)
Boric acid No data available.

Toxicity to Aquatic Plants

Product: No data available.



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$)	No data available.
Boric acid	No data available.

Toxicity to microorganisms

Product:	No data available.
-----------------	--------------------

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$)	No data available.
Boric acid	No data available.

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
-----------------	--------------------

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$)	No data available.
Boric acid	No data available.

Aquatic Invertebrates

Product:	No data available.
-----------------	--------------------

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$)	No data available.
Boric acid	No data available.

Toxicity to microorganisms

Product:	No data available.
-----------------	--------------------

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$)	No data available.
Boric acid	No data available.

Persistence and Degradability

Biodegradation

Product:	No data available.
-----------------	--------------------

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$)	No data available.
Boric acid	No data available.

BOD/COD Ratio

Product:	No data available.
-----------------	--------------------

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$)	No data available.
Boric acid	No data available.



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$) No data available.

Boric acid No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$) No data available.

Boric acid No data available.

Mobility in soil:

Product: No data available.

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$) No data available.

Boric acid No data available.

Results of PBT and vPvB assessment:

Product: No data available.

Components:

Borax ($\text{B}_4\text{Na}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$) No data available.

Boric acid No data available.

Other adverse effects:

Other hazards

Product: No data available.

13. Disposal considerations

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.



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

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.

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.



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Version: 1.4
Last revised date: 09/20/2024

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

Reproductive toxicity

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.



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Version: 1.4
Last revised date: 09/20/2024

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

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

Version #: 1.4

Generation date: 09/20/2024

**Date of first report
version:** 09/09/2016

Abbreviations and acronyms:

ACGIH:	US. ACGIH Threshold Limit Values, as amended
NIOSH/GUIDE:	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
TN OEL:	US. Tennessee. OELs. Occupational Exposure Limits, Table



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

Version: 1.4
Last revised date: 09/20/2024

	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
ACGIH / STEL:	Short Term Exposure Limit (STEL):
ACGIH / TWA:	Time Weighted Average (TWA):
NIOSH/GUIDE / REL:	Recommended exposure limit (REL):
TN OEL / TWA:	Time Weighted Average (TWA):
TX ESL / ST ESL:	Short-Term ESL:
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):

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



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

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; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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

Further Information: No data available.



**Becton, Dickinson
and Company**
BD, Franklin Lakes, NJ
07417 USA
www.bd.com

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.