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SAFETY DATA SHEET

1. Identification

Product identifier

Product name: TUBE GLU PLH 13X100 6.0 PLBL GR **Product No.:** 367925

Synonyms, Trade Names: BD Vacutainer® Fluoride
Blood Collection Tube for Glucose Determination

Other means of identification

Synonyms: BD Vacutainer® Fluoride Blood Collection Tube for Glucose Determination
SDS number: 088100181050

Recommended use and restriction on use

Recommended use: Scientific and industrial laboratory use. For In Vitro Diagnostic Use.
Restrictions on use: For External Use Only

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer

Company Name: BD Diagnostics, Preanalytical Systems
Address: 1 Becton Drive
07417 Franklin Lakes, NJUSA
Telephone: 1 800 631 0174
Fax: 1 201 847 4866
Contact Person: Technical Services
E-mail: pas_tech_services@bd.com

Emergency telephone number: ChemTrec 1 800 424 9300

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Oral)	Category 3
Acute toxicity (Dermal)	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A

Unknown toxicity - Health

Acute toxicity, oral	0 %
Acute toxicity, dermal	0 %
Acute toxicity, inhalation, vapor	44.5 %
Acute toxicity, inhalation, dust or mist	44.5 %

Unknown toxicity - Environment

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Acute hazards to the aquatic environment	44.5 %
Chronic hazards to the aquatic environment	44.5 %

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Toxic if swallowed.
Harmful in contact with skin.
Causes skin irritation.
Causes serious eye irritation.

Precautionary Statements

Prevention: Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see this label). Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: 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.

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

3. Composition/information on ingredients



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Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Sodium fluoride (NaF)		7681-49-4	>=54 - <=56%
Ethanedioic acid, potassium salt (1:2)		583-52-8	>=44 - <=46%

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

4. First-aid measures

- General information:** No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!
- Ingestion:** Not likely, due to the form of the product. However: If swallowed, rinse mouth with water (only if the person is conscious). Get medical attention immediately.
- 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. However: Flush skin thoroughly with water. If skin irritation occurs: Get medical advice/attention. Call a POISON CENTER/doctor/.../if you feel unwell.
- Eye contact:** Due to the small packaging the risk of eye contact is minimal. However: In the event of contact with the eyes, rinse thoroughly with clean water. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

- Symptoms:** May cause skin and eye irritation. May cause abdominal pain with vomiting, nausea, diarrhea, or dizziness.
- Hazards:** Low hazard for recommended handling by trained personnel.

Indication of immediate medical attention and special treatment needed

- Treatment:** Get medical advice/attention if you feel unwell.

5. Fire-fighting measures

- General Fire Hazards:** No unusual fire or explosion hazards noted.



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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.

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.

Methods and material for containment and cleaning up: Sweep or scoop up and remove.

Environmental Precautions: Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Low hazard for recommended handling by trained personnel. Observe good laboratory hygiene practices.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry place out of direct sunlight. Store at specified temperature.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Sodium fluoride (NaF) - as F	TWA	2.5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)



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	TWA	2.5 mg/m ³	US. ACGIH Threshold Limit Values (12 2010)
	REL	2.5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	2.5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Sodium fluoride (NaF) - Dust.	TWA	2.5 mg/m ³	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Sodium fluoride (NaF) (Fluoride: Sampling time: Prior to shift.)	2 mg/l (Urine)	ACGIH BEI (03 2013)
Sodium fluoride (NaF) (Fluoride: Sampling time: End of shift.)	3 mg/l (Urine)	ACGIH BEI (03 2013)

Appropriate Engineering Controls

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

Individual protection measures, such as personal protective equipment

- General information:** No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.
- Eye/face protection:** It is a good industrial hygiene practice to minimize eye contact.
- Skin Protection**
 - Hand Protection:** Use suitable protective gloves if risk of skin contact.
 - Other:** It is a good industrial hygiene practice to minimize skin contact. Wear suitable protective clothing as protection against splashing or contamination.
- Respiratory Protection:** Not relevant, due to the form of the product. None should be needed.
- 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

Appearance

- Physical state:** solid
- Form:** Powder
- Color:** White
- Odor:** Odorless
- Odor threshold:** No data available.
- pH:** No data available.
- Melting point/freezing point:** The physical-chemical properties of this material have not



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Initial boiling point and boiling range:	been fully investigated. The physical-chemical properties of this material have not been fully investigated.
Flash Point:	not applicable
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	The physical-chemical properties of this material have not been fully investigated.
Vapor density:	No data available.
Relative density:	The physical-chemical properties of this material have not been fully investigated.
Solubility(ies)	
Solubility in water:	The physical-chemical properties of this material have not been fully investigated.
Solubility (other):	not applicable
Partition coefficient (n-octanol/water):	The physical-chemical properties of this material have not been fully investigated.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	Not determined. Not determined.

10. Stability and reactivity

Reactivity:	Stable under normal temperature conditions and recommended use.
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



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General information: Under normal conditions of intended use, this material does not pose a risk to health.

Information on likely routes of exposure

Ingestion: Expected to be a low ingestion hazard.

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.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No specific symptoms noted. However, ingestion may cause nausea, headache, dizziness and intoxication.

Inhalation: No specific symptoms noted.

Skin Contact: Causes skin irritation.

Eye contact: Causes serious eye irritation.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 173.66 mg/kg

Dermal
Product: ATEmix: 1,466.18 mg/kg

Inhalation
Product: No data available.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Serious Eye Damage/Eye Irritation
Product: No data available.

Specified substance(s):
Sodium fluoride (NaF) Possibly Irritating



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Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

Sodium fluoride (NaF) Skin sensitization, in vivo (Guinea pig): Not a skin sensitizer.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:



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Fish

Product: No data available.

Specified substance(s):

Sodium fluoride (NaF) LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 124 - 194 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Sodium fluoride (NaF) LC 50 (Water flea (*Daphnia magna*), 48 h): 335 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log K_{ow})

Product: Log K_{ow}: The physical-chemical properties of this material have not been fully investigated.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments



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Sodium fluoride (NaF) No data available.
Ethanedioic acid,
potassium salt (1:2) No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions: Dispose of waste and residues in accordance with local authority requirements.

Contaminated Packaging: No data available.

14. Transport information

DOT

Special precautions for user: Not regulated.

IMDG

Special precautions for user: Not regulated.

IATA

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. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Sodium fluoride (NaF)	1000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.



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SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Sodium fluoride (NaF)	1000 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Sodium fluoride (NaF)	10000 lbs
Ethanedioic acid, potassium salt (1:2)	10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

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

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Sodium fluoride (NaF)	Reportable quantity: 1000 lbs.

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

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

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

<u>Chemical Identity</u>
Sodium fluoride (NaF)

US. Massachusetts RTK - Substance List

<u>Chemical Identity</u>
Sodium fluoride (NaF)

US. Pennsylvania RTK - Hazardous Substances

<u>Chemical Identity</u>
Sodium fluoride (NaF)

US. Rhode Island RTK

<u>Chemical Identity</u>
Sodium fluoride (NaF)

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

Issue Date: 03/15/2017

Version #: 1.0



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Revision Information:

Further Information: No data available.

Disclaimer:

Disclaimer:

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