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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)
367921	TUBE GLU PLH 13X75 2.0 PLBL GR	BD Vacutainer® Sodium Fluoride 5 mg Potassium Oxalate 4 mg (FX) Blood Collection Tubes
367922	TUBE GLU PLH 13X75 4.0 PLBL GR	BD Vacutainer® Sodium Fluoride 10 mg Potassium Oxalate 8 mg (FX) Blood Collection Tubes
368033	TUBE GLU PLH 13X75 4.0 PLBL GR BC	BD Vacutainer® Sodium Fluoride: 10 mg Potassium Oxalate: 8 mg Blood Collection Tubes
368587	TUBE GLU PLC 13X75 4.0 PLBL GR	BD Vacutainer® Sodium Fluoride 10 mg Potassium Oxalate 8 mg (FX) Blood Collection Tubes
367925	TUBE GLU PLH 13X100 6.0 PLBL GR	BD Vacutainer® Sodium Fluoride 15 mg Potassium Oxalate 12 mg (FX) Blood Collection Tubes

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



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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

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: H301: Toxic if swallowed.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H319: Causes serious eye irritation.

Precautionary Statements

Prevention: P264: Wash face, hands and any exposed skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P330: Rinse mouth.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P363: Wash contaminated clothing before reuse.



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P332+P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing.
P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
P321: Specific treatment (see supplemental first aid instructions on this label).
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: 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 (%) [*]
Sodium fluoride (NaF)	No data available.	7681-49-4	55.6%
Potassium oxalate monohydrate	No data available.	6487-48-5	44.4%

^{*} 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: 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!



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Inhalation:	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin Contact:	Flush skin thoroughly with water. If skin irritation occurs: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. Due to the small packaging the risk of skin contact is minimal.
Eye contact:	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. Due to the small packaging the risk of eye contact is minimal.
Ingestion:	Not likely, due to the form of the product. If swallowed, rinse mouth with water (only if the person is conscious). Get medical attention immediately.
Personal Protection for First-aid Responders:	No specific precautions due to the small quantities handled., Use fire-extinguishing media appropriate for surrounding materials.
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.



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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

Handling

Technical measures (e.g. Local and general ventilation):	Low hazard for recommended handling by trained personnel. Observe good industrial hygiene practices.
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 at specified temperature.
Safe packaging materials:	No data available.

8. Exposure controls/personal protection



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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), as amended
	TWA	2.5 mg/m ³	US. ACGIH Threshold Limit Values, as amended
	REL	2.5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	2.5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Sodium fluoride (NaF) - Dust.	TWA	2.5 mg/m ³	US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
Sodium fluoride (NaF)	IDLH	250 mg/m ³	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
	IDLH	250 mg/m ³	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

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.

Skin Protection

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

Skin and Body Protection: 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.



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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:	Not applicable
Boiling Point:	No data available.

Flammability: 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
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pH:	Not applicable
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Viscosity

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

Solubility(ies)

Solubility in Water:	Not applicable
Solubility (other):	No data available.

Partition coefficient (n-octanol/water):	Not applicable
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Vapor pressure:	Not applicable
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Relative density:	Not applicable
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Density:	Not applicable
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Bulk density:	Not applicable
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Vapor density (air=1):	Not applicable
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Particle characteristics

Particle Size:	Not applicable
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Particle Size Distribution:	Not applicable
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Specific surface area:	Not applicable
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Surface charge/Zeta potential:	Not applicable
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Assessment:	Not applicable
Shape:	Not applicable
Crystallinity:	Not applicable
Surface treatment:	Not applicable

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:	Under normal conditions of intended use, this material does not pose a risk to health.
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.
Ingestion:	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No specific symptoms noted.
Skin Contact:	Causes skin irritation.
Eye contact:	Causes serious eye irritation.



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

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix: 173.45 mg/kg
Components:	
Sodium fluoride	LD 50 (Rat): 223 mg/kg Experimental result, Key study LD 50 (Rat): 114 mg/kg Experimental result, Supporting study LD 50 (Rat): 148.5 mg/kg Experimental result, Key study
Dipotassium oxalate	No data available.

Dermal

Product:	ATEmix: 1,100 mg/kg
Components:	
Sodium fluoride	No data available.
Dipotassium oxalate	No data available.

Inhalation

Product:	No data available.
Components:	
Sodium fluoride	No data available.
Dipotassium oxalate	No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
Sodium fluoride	No data available.
Dipotassium oxalate	No data available.

Skin Corrosion/Irritation

Product:	No data available.
Components:	



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Sodium fluoride	Irritating
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Dipotassium oxalate	No data available.
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Serious Eye Damage/Eye Irritation

Product: No data available.

Components:

Sodium fluoride	Possibly Irritating
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Dipotassium oxalate	No data available.
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Respiratory or Skin Sensitization

Product: No data available.

Components:

Sodium fluoride	Skin sensitization:, in vivo (Guinea pig): Non sensitising
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Dipotassium oxalate	No data available.
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Carcinogenicity

Product: No data available.

Components:

Sodium fluoride	No data available.
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Dipotassium oxalate	No data available.
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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:

Sodium fluoride	No data available.
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Dipotassium oxalate	No data available.
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In vivo

Product:	No data available.
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Components:	
Sodium fluoride	No data available.

Dipotassium oxalate	No data available.
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Reproductive toxicity

Product:	No data available.
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Components:	
Sodium fluoride	No data available.

Dipotassium oxalate	No data available.
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Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
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Components:	
Sodium fluoride	No data available.

Dipotassium oxalate	No data available.
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Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
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Components:	
Sodium fluoride	No data available.

Dipotassium oxalate	No data available.
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Aspiration Hazard

Product:	No data available.
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Components:	
Sodium fluoride	No data available.

Dipotassium oxalate	No data available.
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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:

Sodium fluoride (NaF)	LC 50 (Fathead minnow (<i>Pimephales promelas</i>), 96 h): 124 - 194 mg/l Mortality LC 50 (Various, 48 h): 299 mg/l Other, Weight of Evidence study LC 50 (Various, 96 h): 340 mg/l Other, Weight of Evidence study LC 50 (Various, 96 h): 108 mg/l Other, Weight of Evidence study
Potassium oxalate monohydrate	No data available.

Aquatic Invertebrates

Product: No data available.

Components:

Sodium fluoride (NaF)	EC 50 (<i>Daphnia magna</i> ; <i>Daphnia</i> sp., 96 h): 10.5 mg/l Other, Supporting study EC 50 (Trichoptera aquatic larvae, 96 h): 26 - 48 mg/l Experimental result, Key study EC 50 (<i>Daphnia magna</i> ; <i>Daphnia</i> sp., 48 h): 270 mg/l Other, Supporting study LC 50 (Water flea (<i>Daphnia magna</i>), 48 h): 335 mg/l Intoxication
Potassium oxalate monohydrate	No data available.

Toxicity to Aquatic Plants

Product: No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

Toxicity to microorganisms

Product: No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Components:



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Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

Aquatic Invertebrates

Product: No data available.

Components:

Sodium fluoride (NaF)	EC 50 (Various): 10 - 48 mg/l Other, Supporting study NOAEL (Daphnia magna, 21 d): 3.7 mg/l Experimental result, Key study NOAEL (Daphnia magna, 21 d): 14.1 mg/l Experimental result, Key study
Potassium oxalate monohydrate	No data available.

Toxicity to Aquatic Plants

Product: No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

Toxicity to microorganisms

Product: No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

BOD/COD Ratio

Product: No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Components:



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Sodium fluoride (NaF)	Bioconcentration Factor (BCF): 30 Aquatic sediment Other, Key study Bioconcentration Factor (BCF): 7.5 Aquatic sediment Other, Key study Bioconcentration Factor (BCF): 27 - 62 Aquatic sediment Other, Key study Bioconcentration Factor (BCF): 53 - 58 Aquatic sediment Other, Key study Bioconcentration Factor (BCF): < 2 Aquatic sediment Other, Key study
Potassium oxalate monohydrate	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

Mobility in soil:

Product No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

Results of PBT and vPvB assessment:

Product No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

Other adverse effects:

Other hazards

Product: No data available.

Components:

Sodium fluoride (NaF)	No data available.
Potassium oxalate monohydrate	No data available.

13. Disposal considerations

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

Contaminated Packaging: No data available.



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14. Transport information

DOT UN 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.

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.



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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) 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

Sodium fluoride (NaF)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Acute toxicity (any route of exposure), Skin Corrosion or Irritation, Serious eye damage or eye irritation

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. 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

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US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.



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

Chemical Identity

Sodium fluoride (NaF)

US. Massachusetts RTK - Substance List

Chemical Identity

Sodium fluoride (NaF)

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Sodium fluoride (NaF)

US. Rhode Island RTK

Chemical Identity

Sodium fluoride (NaF)

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
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Issue Date:	10/07/2021
Version #:	15.2
Further Information:	No data available.



Version: 15.2
Last revised date:
10/07/2021

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