Date: 21.04.2021

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

Kit Components

Kit Product No.	Kit Product Description
212539	KIT GRAM STAIN STABILIZED

Kit Component(s)	Kit Component(s) Description
0332975BJAA	Gram Crystal Violet
0333075BJAA	GRAM DECOLORIZER 250ML
0333275BJAA	Gram Safranin
0334275BJAA	STABILIZED GRAM IODINE 250ML

IMDG

UN Number:	UN 3316
UN Proper Shipping Name:	CHEMICAL KIT
Transport Hazard Class(es)	
Class:	9
Label(s):	9
EmS No.:	F-A, S-P
Packing Group:	II
Environmental Hazards:	Not regulated.
Marine Pollutant:	No
Special precautions for user:	Not regulated.

IATA

UN Number:	UN 3316
Proper Shipping Name:	Chemical kit
Transport Hazard Class(es):	
Class:	9

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

Label(s):	9MI
Packing Group:	II
Environmental Hazards:	Not regulated.
Marine Pollutant:	No
Cargo aircraft only:	Forbidden.
Special precautions for user:	Not regulated.

Please note: If a listed component does not have a corresponding document included, this means that the product is not hazardous and does not require a Safety Data Sheet.

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

SAFETY DATA SHEET

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
0334275BJAA	STABILIZED GRAM IODINE 250ML	No data available

Other means of identification

SDS number: 088100177510

Recommended use and restriction on use

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

Manufacturer/Importer/Supplier/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

Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Respiratory sensitizer	Category 1
Skin sensitizer	Category 1

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

Specific Target Organ Toxicity - Repeated Exposure	Category 1

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:
H315: Causes skin irritation.
H318: Causes serious eye damage.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317: May cause an allergic skin reaction.
H372: Causes damage to organs through prolonged or repeated exposure.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention:
P264: Wash thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P284: [In case of inadequate ventilation] wear respiratory protection.
P272: Contaminated work clothing should not be allowed out of the workplace.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.

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

Response:	P304+P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302+P352: IF ON SKIN: Wash with plenty of water. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P310: Immediately call a POISON CENTER/doctor. P321: Specific treatment (see on this label). P363: Wash contaminated clothing before reuse.
Disposal:	P501: 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

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
2-Pyrrolidinone, 1-ethenyl-, homopolymer, compd. with iodine	No data available.	25655-41-8	10%
Potassium iodide (KI)	No data available.	7681-11-0	1.9%

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

4. First-aid measures

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

General information:	Causes serious eye damage. Causes skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. If medical advice is needed, have product container or label at hand. Get immediate medical advice/attention.
Ingestion:	If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Get medical attention immediately.
Inhalation:	Get medical attention if any discomfort continues. Provide fresh air, warmth and rest, preferably in comfortable upright sitting position.
Skin Contact:	Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.
Eye contact:	Important! Immediately rinse with water for 60 minutes. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

Symptoms:	Symptoms may be delayed.
Hazards:	May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.Causes serious eye damage. Causes skin irritation.

Indication of immediate medical attention and special treatment needed

Treatment:	Get immediate medical advice/attention. Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.

5. Fire-fighting measures

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

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

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media:	Avoid water in straight hose stream; will scatter and spread fire.
Specific hazards arising from the chemical:	Fire or excessive heat may produce hazardous decomposition products.

Special protective equipment and precautions for firefighters

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:	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wash thoroughly after dealing with a spillage. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Contact local authorities in case of spillage to drain/aquatic environment.
Methods and material for containment and cleaning up:	Stop leak if possible without any risk. Absorb spillage with suitable absorbent material. Collect for salvage or disposal. Prevent runoff from entering drains, sewers, or streams. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

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

Environmental Precautions:	Do not release into the environment. Environmental manager must be informed of all major spillages.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	Adequate ventilation should be provided whenever the material is heated or mists are generated.
Safe handling advice:	Wash at the end of each work shift and before eating, smoking and using the toilet.Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes and avoid contact with skin and clothing. Wash promptly with soap and water if skin becomes contaminated. 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.
Hygiene measures:	Do not eat, drink or smoke when using the product. Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Avoid contact with skin. Do not breathe dust/fume/gas/mist/vapors/spray.

Storage

Safe storage conditions:	Store in tightly closed original container in a dry, cool and well-ventilated place.
Safe packaging materials:	No data available.
Storage Temperature:	No data available.

8. Exposure controls/personal protection

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

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Potassium iodide (KI) - Particulate.	AN ESL	5 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	50 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
Potassium iodide (KI) - Inhalable fraction and vapor.	TWA	0.01 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)

Appropriate Engineering Controls Adequate ventilation should be provided whenever the material is heated or mists are generated.

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: Chemical goggles and face shield are recommended.

Skin Protection

Hand Protection: Chemical resistant gloves

Other: Wear a lab coat or similar protective clothing.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hygiene measures: Do not eat, drink or smoke when using the product. Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Avoid contact with skin. Do not breathe dust/fume/gas/mist/vapors/spray.

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

9. Physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	According to product specification.
Odor:	Characteristic
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
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:	No data available.
Vapor density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	Completely Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	Not determined.

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

10. Stability and reactivity

Reactivity:	Product is not reactive under normal conditions and recommended use. Stable
Chemical Stability:	No data available.
Possibility of hazardous reactions:	Stable; however, may decompose if heated. None under normal conditions.
Conditions to avoid:	Avoid exposure to high temperatures or direct sunlight.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	By heating and fire, harmful vapors/gases may be formed.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract.
Inhalation:	No data available.
Skin Contact:	Causes skin irritation. Prolonged or repeated contact may cause skin sensitization in susceptible individuals.
Eye contact:	May cause chemical eye burns.

Symptoms related to the physical, chemical and toxicological characteristics

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

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

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 26,315.79 mg/kg

Dermal
Product: No data available.

Inhalation
Product: No data available.

Repeated dose toxicity
Product: No data available.

Specified substance(s):

Potassium iodide (KI)	LOAEL (Rat(Male), Oral, 19 Weeks): 1,000 ppm(m) Oral Experimental result, Weight of Evidence study LOAEL (Rat(Female, Male), Oral): 100 mg/l Oral Experimental result, Weight of Evidence study NOAEL (Human(Female, Male), Oral): 0.01 mg/kg Oral Experimental result, Key study LOAEL (Rat(Male), Oral, 28 d): 500 mg/kg Oral Experimental result, Weight of Evidence study LOAEL (Rat, Oral, 12 Weeks): 70 mg/kg Oral Experimental result, Supporting study

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):

Potassium iodide (KI)	in vivo (Rabbit): Moderately irritating Experimental result, Key study

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

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

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

Potassium iodide (KI)	Skin sensitization:, in vivo (Human): Non sensitising

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), as amended:

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.

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

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: Harmful to aquatic organisms.

Aquatic Invertebrates
Product: Harmful to aquatic organisms.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
Potassium iodide (KI) LC 100 (Oncorhynchus mykiss, 22 d): 166,002.8 mg/l
Experimental result, Key study

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

Specified substance(s):

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

Potassium iodide (KI)	50 % (3,240 h) Sediment Estimated by calculation, Key study 50 % (360 h) Detected in water. Estimated by calculation, Key study 50 % (360 h) Sediment Estimated by calculation, Key study 50 % (720 h) Soil Estimated by calculation, Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Potassium iodide (KI)	Various, Bioconcentration Factor (BCF): 2.27 Aquatic sediment Estimated by calculation, Key study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

2-Pyrrolidinone, 1-ethenyl-, homopolymer, compd. with iodine	No data available.
Potassium iodide (KI)	No data available.

Other adverse effects: No data available.

13. Disposal considerations

General information: Dispose of waste and residues in accordance with local authority requirements.

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

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

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.

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

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):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Skin Corrosion or Irritation, Serious eye damage or eye irritation, Respiratory or Skin Sensitization, Specific target organ toxicity (single or repeated exposure)

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

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)

None present or none present in regulated quantities.

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

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

US. Massachusetts RTK - Substance List

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

US. Pennsylvania RTK - Hazardous Substances

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

US. Rhode Island RTK

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

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

Issue Date: 03/18/2021

Version #: 2.1

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

Revision Information:

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.

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

SAFETY DATA SHEET

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
0333275BJAA	Gram Safranin	No data available

Other means of identification

SDS number: 088100177508

Recommended use and restriction on use

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

Manufacturer/Importer/Supplier/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

Physical Hazards

Flammable liquids Category 3

Label Elements

Hazard Symbol:

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

Signal Word: Warning

Hazard Statement: H226: Flammable liquid and vapor.

Precautionary Statements

Prevention:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof [electrical/ventilating/lighting/…] equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P370+P378: In case of fire: Use water spray, fog, CO2, dry chemical, or alcohol resistant foam.

Storage:
P403: Store in a well-ventilated place.
P235: Keep cool.

Disposal:
P501: 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

Other hazards which do not result in GHS classification:	FK: Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Spark: Sparks may ignite liquid and vapor. H241: May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Ethanol	No data available.	64-17-5	19%
Methanol	No data available.	67-56-1	1%

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

4. First-aid measures

General information: Get medical attention if symptoms occur.

Ingestion: Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

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: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Indication of immediate medical attention and special treatment needed

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

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:	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Not applicable
Specific hazards arising from the chemical:	Fire or excessive heat may produce hazardous decomposition products.

Special protective equipment and precautions for firefighters

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:	Contact local authorities in case of spillage to drain/aquatic environment. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area.
Methods and material for containment and cleaning up:	Absorb spillage with suitable absorbent material. Prevent runoff from entering drains, sewers, or streams. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

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

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.
Hygiene measures:	Observe good industrial hygiene practices.

Storage

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

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Ethanol	TWA	1,000 ppm	1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	1,000 ppm	1,900 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	AN ESL		1,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental

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

			Quality), as amended (12 2010)
	ST ESL	10,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL	1,880 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	18,800 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	TWA PEL	1,000 ppm 1,900 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	STEL	1,000 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)
	REL	1,000 ppm 1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	IDLH	3,300 ppm	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
	LEL	3.3 %	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
	PEL	1,000 ppm 1,900 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Methanol	STEL	250 ppm 325 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	200 ppm 260 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	STEL	250 ppm 325 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	TWA	200 ppm 260 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	ST ESL	2,620 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL	200 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL	262 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	2,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	STEL	250 ppm 325 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)

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

	TWA PEL	200 ppm 260 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	Ceiling	1,000 ppm	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	STEL	250 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)
	TWA	200 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)
	REL	200 ppm 260 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	STEL	250 ppm 325 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	200 ppm 260 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	IDLH	6,000 ppm	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Methanol (methanol: Sampling time: End of shift.)	15 mg/l (Urine)	ACGIH BEI (03 2013)

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 Suitable gloves can be recommended by the glove supplier. Wash hands after contact.

Other: Wear a lab coat or similar protective clothing.

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

Respiratory Protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Hygiene measures:	Observe good industrial hygiene practices.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	According to product specification.
Odor:	Characteristic
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	79 °C
Flash Point:	38.9 °C
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:	No data available.
Vapor density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	Completely Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.

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

Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	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:	Not determined.
Conditions to avoid:	Avoid exposure to high temperatures or direct sunlight.
Incompatible Materials:	Metals. Water reactive material.
Hazardous Decomposition Products:	Stable; however, may decompose if heated.

11. Toxicological information

General information: No data on possible toxicity effects have been found.

Information on likely routes of exposure

Ingestion:	No harmful effects expected in amounts likely to be ingested by accident.
Inhalation:	Limited inhalation hazard at normal work temperatures.
Skin Contact:	Negligible irritation to skin at ambient temperatures.
Eye contact:	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No data available.

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

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 10,000 mg/kg

Dermal
Product: ATEmix: 30,000 mg/kg

Inhalation
Product: ATEmix: 300 mg/l

Repeated dose toxicity
Product: No data available.

Specified substance(s):

Ethanol	Based on available data, the classification criteria are not met. NOAEL (Mouse(Female, Male), Inhalation, 7,202 - 7,373 h): 0.13 mg/l Inhalation Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study LOAEL (Rat(Female, Male), Oral, <= 90 d): 3 %(m) Oral Experimental result, Supporting study NOAEL (Monkey(Female, Male), Inhalation): 6.63 mg/l Inhalation Read-across from supporting substance (structural analogue or surrogate), Supporting study LOAEL (Monkey, Inhalation): 4 mg/l Inhalation Read-across from supporting substance (structural analogue or surrogate), Supporting study
Methanol	NOAEL (Rat(Female, Male), Inhalation): 6.66 mg/l Inhalation Experimental result, Weight of Evidence study LOAEL (Rat(Male), Inhalation, 1 - 6 Weeks): 13.3 mg/l Inhalation

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

Experimental result, Supporting study
NOAEL (Rat(Male), Inhalation, 1 - 6 Weeks): 2.65 mg/l Inhalation Experimental result, Supporting study
NOAEL (Rat(Male), Inhalation, 1 - 6 Weeks): 0.26 mg/l Inhalation Experimental result, Supporting study
NOAEL (Rat(Female, Male), Inhalation, 7,318 - 7,496 h): 0.13 mg/l Inhalation Experimental result, Weight of Evidence study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Ethanol: in vivo (Rabbit): Not irritant Experimental result, Key study

Methanol: in vivo (Rabbit): Not irritant Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Ethanol: in vivo (Rabbit, 24 - 72 hrs): Not irritating EU

Methanol: in vivo (Rabbit, 24 - 72 hrs): Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

Ethanol: Based on available data, the classification criteria are not met. Skin sensitization:, in vivo (Guinea pig): Non sensitising

Methanol: Skin sensitization:, in vivo (Guinea Pig): Non sensitising

Carcinogenicity

Product: No data available.

Specified substance(s):

Ethanol: Based on available data, the classification criteria are not met.

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

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), as amended:
No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product:	No data available.
Specified substance(s):	
Ethanol	Based on available data, the classification criteria are not met.

In vivo

Product:	No data available.
Specified substance(s):	
Ethanol	Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:	No data available.
Specified substance(s):	
Ethanol	Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Specified substance(s):	
Ethanol	Based on available data, the classification criteria are not met.
Methanol	Oral: Nervous System - Causes damage to organs.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Specified substance(s):	
Ethanol	Based on available data, the classification criteria are not met.

Aspiration Hazard

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

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No negative effects on the aquatic environment are known.

Aquatic Invertebrates
Product: No negative effects on the aquatic environment are known.

Chronic hazards to the aquatic environment:

Fish
Product: No negative effects on the aquatic environment are known.

Aquatic Invertebrates
Product: No negative effects on the aquatic environment are known.

Toxicity to Aquatic Plants
Product: No negative effects on the aquatic environment are known.

Persistence and Degradability

Biodegradation
Product: Expected to be readily biodegradable.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

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

Specified substance(s):

Ethanol	Potential to bioaccumulate is low. Leuciscus idus, Bioconcentration Factor (BCF): < 10 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study Cyprinus carpio, Bioconcentration Factor (BCF): 1 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study Leuciscus idus, Bioconcentration Factor (BCF): 0.2 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Not specified Cyprinus carpio, Bioconcentration Factor (BCF): 3 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study
Methanol	Leuciscus idus, Bioconcentration Factor (BCF): < 10 Aquatic sediment Experimental result, Supporting study Cyprinus carpio, Bioconcentration Factor (BCF): 4.5 Aquatic sediment Experimental result, Supporting study Cyprinus carpio, Bioconcentration Factor (BCF): 1 Aquatic sediment Experimental result, Supporting study Cyprinus carpio, Bioconcentration Factor (BCF): 3 Aquatic sediment Experimental result, Supporting study Green algae (Chlorella fusca vacuolata), Bioconcentration Factor (BCF): 28,400 (Static)

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Methanol	Log Kow: -0.77

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Ethanol	soil - Very mobile liquid
Methanol	No data available.

Other adverse effects: The product is not expected to be hazardous to the environment.

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

13. Disposal considerations

General information: Dispose of waste and residues in accordance with local authority requirements.

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

DOT

UN Number:	UN 3316
UN Proper Shipping Name:	Chemical kits
Transport Hazard Class(es)	
Class:	9
Label(s):	9
Packing Group:	III
Marine Pollutant:	No
Special precautions for user:	Not regulated.

IMDG

UN Number:	UN 3316
UN Proper Shipping Name:	CHEMICAL KIT
Transport Hazard Class(es)	
Class:	9
Subsidiary risk:	9
EmS No.:	F-A, S-P
Packing Group:	III
Environmental Hazards	
Marine Pollutant:	No
Special precautions for user:	Not regulated.

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

IATA

UN Number:	UN 3316
Proper Shipping Name:	Chemical kit
Transport Hazard Class(es):	
Class:	9
Subsidiary risk:	9MI
Packing Group:	III
Environmental Hazards	
Marine pollutant:	No
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
RCRA HAZARDOUS WASTE NO. D001
METHANOL

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), Hazards Not Otherwise Classified (HNOC)

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

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

Chemical Identity	% by weight
Methanol	1.0%

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

WARNING: This product can expose you to chemicals including, Ethanol which is [are] known to the State of California to cause cancer and birth defects or other reproductive harm.

This product can expose you to chemicals including, Methanol which is [are] known to the State of California to cause birth defects or other reproductive harm.

For more information go to www.P65Warnings.ca.gov.

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

Chemical Identity
Ethanol
Methanol

US. Massachusetts RTK - Substance List

Chemical Identity
Ethanol

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Ethanol

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

US. Rhode Island RTK

Chemical Identity
Ethanol

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

Issue Date:	03/18/2021
Version #:	2.2
Revision Information:	
Source of information:	European Chemicals Agency (ECHA): Information on Chemicals.
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.

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

SAFETY DATA SHEET

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
0333075BJAA	GRAM DECOLORIZER 250ML	No data available

Other means of identification

SDS number: 088100177507

Recommended use and restriction on use

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

Manufacturer/Importer/Supplier/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

Physical Hazards

Flammable liquids — Category 2

Health Hazards

Serious Eye Damage/Eye Irritation — Category 2A

Specific Target Organ Toxicity - Single Exposure — Category 3

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

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:
H225: Highly flammable liquid and vapor.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

Precautionary Statements

Prevention:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof [electrical/ventilating/lighting/…] equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P264: Wash thoroughly after handling.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P271: Use only outdoors or in a well-ventilated area.

Response:
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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

P312: Call a POISON CENTER/doctor if you feel unwell.
P370+P378: In case of fire: Use water spray, fog, CO2, dry chemical, or alcohol resistant foam.

Storage:

P403: Store in a well-ventilated place.
P235: Keep cool.
P233: Keep container tightly closed.
P405: Store locked up.

Disposal:

P501: 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:

FK: Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.
Spark: Sparks may ignite liquid and vapor.
H241: May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
2-Propanol	No data available.	67-63-0	75%
2-Propanone	No data available.	67-64-1	25%

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

4. First-aid measures

General information:

Get medical attention if symptoms occur.

Ingestion:

Get medical attention if symptoms occur.

Inhalation:

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

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

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.

Most important symptoms/effects, acute and delayed

Symptoms: 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.

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.

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

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.
Hygiene measures:	Observe good industrial hygiene practices.

Storage

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

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

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
2-Propanol	TWA	400 ppm 980 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	STEL	500 ppm 1,225 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	400 ppm 980 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	500 ppm 1,225 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	AN ESL	200 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	2,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL	492 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	4,920 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	TWA PEL	400 ppm 980 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
	STEL	500 ppm 1,225 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
	TWA	200 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)
	STEL	400 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)
	STEL	500 ppm 1,225 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	REL	400 ppm 980 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	400 ppm 980 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	LEL	2.0 %	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
	IDLH	2,000 ppm	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

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

				(10 2017)
2-Propanone	STEL	500 ppm		US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values, as amended (12 2010)
	TWA	200 ppm		US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values, as amended (12 2010)
	TWA	750 ppm	1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	STEL	1,000 ppm	2,400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	STEL	1,000 ppm	2,400 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	TWA	750 ppm	1,800 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	ST ESL		2,500 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL		250 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL		5,900 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL		590 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	TWA PEL	500 ppm	1,200 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	STEL	750 ppm	1,780 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	Ceiling	3,000 ppm		US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	TWA	250 ppm		US. ACGIH Threshold Limit Values, as amended (03 2015)
	STEL	500 ppm		US. ACGIH Threshold Limit Values, as amended (03 2015)
	REL	250 ppm	590 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	1,000 ppm	2,400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	LEL		2.5 %	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
	IDLH	2,500 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

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

			(10 2017)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
2-Propanol (acetone: Sampling time: End of shift at end of work week.)	40 mg/l (Urine)	ACGIH BEI (03 2013)
2-Propanone (acetone: Sampling time: End of shift.)	25 mg/l (Urine)	ACGIH BEI (03 2015)

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.

Respiratory Protection: Respiratory protection not required.

Hygiene measures: Observe good industrial hygiene practices.

9. Physical and chemical properties

Appearance

Physical state: liquid
Form: liquid
Color: According to product specification.

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

Odor:	Characteristic
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	56.1 - 82 °C
Flash Point:	-6.7 °C
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:	No data available.
Vapor density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	Completely Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	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:	Not known.

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

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 data on possible toxicity effects have been found.

Information on likely routes of exposure

Ingestion: No harmful effects expected in amounts likely to be ingested by accident.

Inhalation: Limited inhalation hazard at normal work temperatures.

Skin Contact: Negligible irritation to skin at ambient temperatures.

Eye contact: Do not get in eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No specific symptoms noted.

Inhalation: No specific symptoms noted.

Skin Contact: No specific symptoms noted.

Eye contact: No specific symptoms noted.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 12,000 mg/kg

Dermal
Product: No data available.

Inhalation

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

Product: No data available.

Repeated dose toxicity

Product: No data available.

Specified substance(s):

2-Propanol	NOAEL (Rat, Inhalation, >= 104 Weeks): 5,000 ppm(m) Inhalation Experimental result, Key study
2-Propanone	NOAEL (Mouse(Male), Oral, 13 Weeks): 20,000 ppm(m) Oral Experimental result, Key study NOAEL (Mouse(female), Oral, 13 Weeks): 20,000 ppm(m) Oral Experimental result, Key study LOAEL (Rat(Female, Male), Oral, 30 - 90 d): 500 mg/kg Oral Not specified, Not specified LOAEL (Rat(Male), Oral, 13 Weeks): 20,000 ppm(m) Oral Experimental result, Key study LOAEL (Mouse(Male), Oral, 14 d): 20,000 ppm(m) Oral Experimental result, Supporting study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

2-Propanol	in vivo (Rabbit): Not Classified Experimental result, Key study
2-Propanone	in vivo (Guinea pig): Not irritant Experimental result, Weight of Evidence study in vivo (Guinea pig): Not irritant Experimental result, Weight of Evidence study in vivo (Rabbit): Not irritant Experimental result, Supporting study

Serious Eye Damage/Eye Irritation

Product: No data available.

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

Specified substance(s):

2-Propanol	in vivo (Rabbit, 1 d): Category 2: Causes serious eye irritation CLP (1272/2008)
2-Propanone	Irritating Exposure for 15 minutes to 1660 ppm causes irritation of eyes

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

2-Propanol	Skin sensitization:, in vivo (Guinea Pig): Non sensitising
2-Propanone	Skin sensitization:, in vivo (Guinea pig): Non sensitising Skin sensitization:, in vivo (Mouse): Non sensitising

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), as amended:

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.

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

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: None known.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No negative effects on the aquatic environment are known.

Aquatic Invertebrates
Product: No negative effects on the aquatic environment are known.

Chronic hazards to the aquatic environment:

Fish
Product: No negative effects on the aquatic environment are known.

Aquatic Invertebrates
Product: No negative effects on the aquatic environment are known.

Toxicity to Aquatic Plants
Product: No negative effects on the aquatic environment are known.

Persistence and Degradability

Biodegradation
Product: Expected to be readily biodegradable.

BOD/COD Ratio

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

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

2-Propanone	Bioconcentration Factor (BCF): 3 Aquatic sediment Estimated by calculation, Supporting study Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment Experimental result, Not specified

Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

2-Propanol	No data available.
2-Propanone	No data available.

Other adverse effects: The product is not expected to be hazardous to the environment.

13. Disposal considerations

General information: Dispose of waste and residues in accordance with local authority requirements.

Disposal instructions: No specific disposal method required.

Contaminated Packaging: No data available.

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

14. Transport information

DOT

UN Number:	UN 3316
UN Proper Shipping Name:	Chemical kits
Transport Hazard Class(es)	
Class:	9
Label(s):	9
Packing Group:	II
Marine Pollutant:	No
Special precautions for user:	Not regulated.

IMDG

UN Number:	UN 3316
UN Proper Shipping Name:	CHEMICAL KIT
Transport Hazard Class(es)	
Class:	9
Subsidiary risk:	9
EmS No.:	F-A, S-P
Packing Group:	II
Environmental Hazards	
Marine Pollutant:	No
Special precautions for user:	Not regulated.

IATA

UN Number:	UN 3316
Proper Shipping Name:	Chemical kit
Transport Hazard Class(es):	
Class:	9
Subsidiary risk:	9MI
Packing Group:	II
Environmental Hazards	
Marine pollutant:	No
Special precautions for user:	Not regulated.

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

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
RCRA HAZARDOUS WASTE NO. D001
2-PROPANONE

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure), Hazards Not Otherwise Classified (HNOC)

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

Chemical Identity	% by weight
2-Propanol	1.0%

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)

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

None present or none present in regulated quantities.

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
2-Propanol
2-Propanone

US. Massachusetts RTK - Substance List

Chemical Identity
2-Propanol
2-Propanone

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
2-Propanol
2-Propanone

US. Rhode Island RTK

Chemical Identity
2-Propanol
2-Propanone

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

Issue Date:	09/30/2020
Version #:	2.2
Revision Information:	No data available.
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.

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

SAFETY DATA SHEET

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
0332975BJAA	Gram Crystal Violet	No data available

Other means of identification

SDS number: 088100177506

Recommended use and restriction on use

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

Manufacturer/Importer/Supplier/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

Physical Hazards

Flammable liquids — Category 3

Health Hazards

Serious Eye Damage/Eye Irritation — Category 2A

Carcinogenicity — Category 2

Environmental Hazards

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

Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

Label Elements

Hazard Symbol:

Signal Word: Warning

Hazard Statement:
H226: Flammable liquid and vapor.
H319: Causes serious eye irritation.
H351: Suspected of causing cancer.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof [electrical/ventilating/lighting/…] equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P264: Wash thoroughly after handling.
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P281: Use personal protective equipment as required.
P273: Avoid release to the environment.

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

Response:	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. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P308+P313: IF exposed or concerned: Get medical advice/attention. P370+P378: In case of fire: Use water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Storage:	P403: Store in a well-ventilated place. P235: Keep cool. P405: Store locked up.
Disposal:	P501: 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:	FK: Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Spark: Sparks may ignite liquid and vapor. H241: May cause flash fire or explosion.

3. Composition/information on ingredients

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

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
2-Propanol	No data available.	67-63-0	5%
Methanol	No data available.	67-56-1	2.5%
Ethanol	No data available.	64-17-5	2.5%
Phenol	No data available.	108-95-2	0.4%
Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (1:1)	No data available.	548-62-9	0.3%

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

4. First-aid measures

General information: Causes serious eye irritation. Suspected of causing cancer.

Ingestion: If swallowed, rinse mouth with water (only if the person is conscious). DO NOT induce vomiting. Get medical attention immediately.

Inhalation: Get medical attention if any discomfort continues.

Skin Contact: Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.

Eye contact: Important! Immediately rinse with water for at least 15 minutes. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: Causes serious eye irritation.Suspected of causing cancer.

Indication of immediate medical attention and special treatment needed

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

Treatment:	Get immediate medical advice/attention.

5. Fire-fighting measures

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

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media:	Avoid water in straight hose stream; will scatter and spread fire.
Specific hazards arising from the chemical:	Fire or excessive heat may produce hazardous decomposition products.

Special protective equipment and precautions for firefighters

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:	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wash thoroughly after dealing with a spillage. Contact local authorities in case of spillage to drain/aquatic environment.
Methods and material for containment and cleaning up:	Absorb spillage with suitable absorbent material. Prevent runoff from entering drains, sewers, or streams. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

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

Environmental Precautions:	Avoid release to the environment.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	Adequate ventilation should be provided whenever the material is heated or mists are generated.
Safe handling advice:	Avoid contact with eyes. Eye wash facilities and emergency shower must be available when handling this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Read and follow manufacturer's recommendations. Use personal protective equipment as required.
Contact avoidance measures:	No data available.
Hygiene measures:	Avoid contact with eyes. Wash hands after contact. Observe good industrial hygiene practices.

Storage

Safe storage conditions:	Store in tightly closed original container in a dry, cool and well-ventilated place.
Safe packaging materials:	No data available.
Storage Temperature:	No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
2-Propanol	TWA	400 ppm 980 mg/m3	US. OSHA Table Z-1-A (29 CFR

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

			1910.1000), as amended (1989)
	STEL	500 ppm 1,225 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	400 ppm 980 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	500 ppm 1,225 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	AN ESL	200 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	2,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL	492 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	4,920 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	TWA PEL	400 ppm 980 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
	STEL	500 ppm 1,225 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
	TWA	200 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)
	STEL	400 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)
	STEL	500 ppm 1,225 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	REL	400 ppm 980 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	400 ppm 980 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	LEL	2.0 %	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
	IDLH	2,000 ppm	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
Methanol	STEL	250 ppm 325 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	200 ppm 260 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	STEL	250 ppm 325 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	TWA	200 ppm 260 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)

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

	ST ESL	2,620 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL	200 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL	262 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	2,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	STEL	250 ppm 325 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	TWA PEL	200 ppm 260 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	Ceiling	1,000 ppm	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	STEL	250 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)
	TWA	200 ppm	US. ACGIH Threshold Limit Values, as amended (12 2010)
	REL	200 ppm 260 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	STEL	250 ppm 325 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	200 ppm 260 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	IDLH	6,000 ppm	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
Ethanol	TWA	1,000 ppm 1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	1,000 ppm 1,900 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	AN ESL	1,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	10,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	AN ESL	1,880 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	ST ESL	18,800 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)

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

	TWA PEL	1,000 ppm	1,900 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	STEL	1,000 ppm		US. ACGIH Threshold Limit Values, as amended (12 2010)
	REL	1,000 ppm	1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	IDLH	3,300 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
	LEL		3.3 %	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
	PEL	1,000 ppm	1,900 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Phenol	TWA	5 ppm	19 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	5 ppm	19 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	ST ESL		150 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
	AN ESL		19 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
	ST ESL		40 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
	AN ESL		5 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (12 2010)
	TWA PEL	5 ppm	19 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	TWA	5 ppm		US. ACGIH Threshold Limit Values, as amended (12 2010)
	REL	5 ppm	19 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	Ceil_Time	15.6 ppm	60 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	IDLH	250 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
	PEL	5 ppm	19 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)

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

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
2-Propanol (acetone: Sampling time: End of shift at end of work week.)	40 mg/l (Urine)	ACGIH BEI (03 2013)
Methanol (methanol: Sampling time: End of shift.)	15 mg/l (Urine)	ACGIH BEI (03 2013)
Phenol (Phenol with hydrolysis: Sampling time: End of shift.)	250 mg/g (Creatinine in urine)	ACGIH BEI (03 2013)

Appropriate Engineering Controls Adequate ventilation should be provided whenever the material is heated or mists are generated.

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 and protective equipment to remove contaminants.

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.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hygiene measures: Avoid contact with eyes. Wash hands after contact. Observe good industrial hygiene practices.

9. Physical and chemical properties

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

Appearance

Physical state:	liquid
Form:	liquid
Color:	According to product specification.
Odor:	Characteristic
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	43.3 °C
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:	No data available.
Vapor density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	Completely Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	Not determined.

10. Stability and reactivity

Reactivity: Product is not reactive under normal conditions and recommended use.

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

Chemical Stability:	No data available.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	Avoid exposure to high temperatures or direct sunlight.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	By heating and fire, harmful vapors/gases may be formed.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract.
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:	Irritating to eyes.

Symptoms related to the physical, chemical and toxicological characteristics

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

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

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 3,377.64 mg/kg

Dermal
Product: ATEmix: 10,344.83 mg/kg

Inhalation
Product: ATEmix: 120 mg/l

Repeated dose toxicity
Product: No data available.

Specified substance(s):

2-Propanol	NOAEL (Rat, Inhalation, >= 104 Weeks): 5,000 ppm(m) Inhalation Experimental result, Key study
Methanol	NOAEL (Rat(Female, Male), Inhalation): 6.66 mg/l Inhalation Experimental result, Weight of Evidence study LOAEL (Rat(Male), Inhalation, 1 - 6 Weeks): 13.3 mg/l Inhalation Experimental result, Supporting study NOAEL (Rat(Male), Inhalation, 1 - 6 Weeks): 2.65 mg/l Inhalation Experimental result, Supporting study NOAEL (Rat(Male), Inhalation, 1 - 6 Weeks): 0.26 mg/l Inhalation Experimental result, Supporting study NOAEL (Rat(Female, Male), Inhalation, 7,318 - 7,496 h): 0.13 mg/l Inhalation Experimental result, Weight of Evidence study
Ethanol	Based on available data, the classification criteria are not met. NOAEL (Mouse(Female, Male), Inhalation, 7,202 - 7,373 h): 0.13 mg/l Inhalation Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study LOAEL (Rat(Female, Male), Oral, <= 90 d): 3 %(m) Oral Experimental result, Supporting study NOAEL (Monkey(Female, Male), Inhalation): 6.63 mg/l Inhalation Read-across from supporting substance (structural analogue or surrogate), Supporting study

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

	LOAEL (Monkey, Inhalation): 4 mg/l Inhalation Read-across from supporting substance (structural analogue or surrogate), Supporting study
Phenol	LOAEL (Rabbit, Dermal, 18 d): 260 mg/kg Dermal Experimental result, Key study NOAEL (Rabbit, Dermal, 18 d): 130 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female, Male), Oral, 103 Weeks): 5,000 ppm(m) Oral Experimental result, Weight of Evidence study NOAEL (Rat(Female, Male), Oral, 13 Weeks): 5,000 ppm(m) Oral Experimental result, Weight of Evidence study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

2-Propanol	in vivo (Rabbit): Not Classified Experimental result, Key study
Methanol	in vivo (Rabbit): Not irritant Experimental result, Key study
Ethanol	in vivo (Rabbit): Not irritant Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

2-Propanol	in vivo (Rabbit, 1 d): Category 2: Causes serious eye irritation CLP (1272/2008)
Methanol	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Ethanol	in vivo (Rabbit, 24 - 72 hrs): Not irritating EU

Respiratory or Skin Sensitization

Product: No data available.

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

Specified substance(s):

2-Propanol	Skin sensitization:, in vivo (Guinea Pig): Non sensitising
Methanol	Skin sensitization:, in vivo (Guinea Pig): Non sensitising
Ethanol	Based on available data, the classification criteria are not met. Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

Product: No data available.

Specified substance(s):

Ethanol	Based on available data, the classification criteria are not met.

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), as amended:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

Specified substance(s):

Ethanol	Based on available data, the classification criteria are not met.

In vivo

Product: No data available.

Specified substance(s):

Ethanol	Based on available data, the classification criteria are not met.

Reproductive toxicity

Product: No data available.

Specified substance(s):

Ethanol	Based on available data, the classification criteria are not met.

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

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s):

Methanol — Oral: Nervous System - Causes damage to organs.

Ethanol — Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s):

Ethanol — Based on available data, the classification criteria are not met.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No negative effects on the aquatic environment are known.

Aquatic Invertebrates

Product: No negative effects on the aquatic environment are known.

Chronic hazards to the aquatic environment:

Fish

Product: No negative effects on the aquatic environment are known.

Aquatic Invertebrates

Product: No negative effects on the aquatic environment are known.

Toxicity to Aquatic Plants

Product: No negative effects on the aquatic environment are known.

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

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

2-Propanol	53 % (5 d) Detected in water. Experimental result, Key study
Methanol	83 - 91 % (3 d) Sediment Experimental result, Supporting study 97 % Detected in water. Experimental result, Key study 71.5 % (5 d) Detected in water. Experimental result, Key study 82.7 % (5 d) Detected in water. Experimental result, Key study 69 % Detected in water. Experimental result, Key study
Ethanol	Readily biodegradable 12.9 % Detected in water. Experimental result, Supporting study 89 % (14 d) Detected in water. Experimental result, Supporting study 69 % Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study 45 % Detected in water. Experimental result, Supporting study
Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (1:1)	3.6 % (28 d) Detected in water. Experimental result, Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

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

Methanol	Leuciscus idus, Bioconcentration Factor (BCF): < 10 Aquatic sediment Experimental result, Supporting study Cyprinus carpio, Bioconcentration Factor (BCF): 4.5 Aquatic sediment Experimental result, Supporting study Cyprinus carpio, Bioconcentration Factor (BCF): 1 Aquatic sediment Experimental result, Supporting study Cyprinus carpio, Bioconcentration Factor (BCF): 3 Aquatic sediment Experimental result, Supporting study Green algae (Chlorella fusca vacuolata), Bioconcentration Factor (BCF): 28,400 (Static)
Ethanol	Potential to bioaccumulate is low. Leuciscus idus, Bioconcentration Factor (BCF): < 10 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study Cyprinus carpio, Bioconcentration Factor (BCF): 1 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study Leuciscus idus, Bioconcentration Factor (BCF): 0.2 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Not specified Cyprinus carpio, Bioconcentration Factor (BCF): 3 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study
Phenol	Pimephales promelas, Bioconcentration Factor (BCF): 4,300 Aquatic sediment Experimental result, Not specified

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

2-Propanol	Log Kow: 0.05
Methanol	Log Kow: -0.77

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

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

2-Propanol	No data available.
Methanol	No data available.
Ethanol	soil - Very mobile liquid
Phenol	No data available.
Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl] methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (1:1)	No data available.

Other adverse effects: No data available.

13. Disposal considerations

General information: Dispose of waste and residues in accordance with local authority requirements.

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

DOT

UN Number:	UN 3316
UN Proper Shipping Name:	Chemical kits
Transport Hazard Class(es)	
Class:	9
Label(s):	9
Packing Group:	III
Marine Pollutant:	No
Special precautions for user:	Not regulated.

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

IMDG

UN Number:	UN 3316
UN Proper Shipping Name:	CHEMICAL KIT
Transport Hazard Class(es)	
Class:	9
Subsidiary risk:	9
EmS No.:	F-A, S-P
Packing Group:	III
Environmental Hazards	
Marine Pollutant:	No
Special precautions for user:	Not regulated.

IATA

UN Number:	UN 3316
Proper Shipping Name:	Chemical kit
Transport Hazard Class(es):	
Class:	9
Subsidiary risk:	9MI
Packing Group:	III
Environmental Hazards	
Marine pollutant:	No
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.

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

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity
RCRA HAZARDOUS WASTE NO. D001
METHANOL
RCRA HAZARDOUS WASTE NO. D001
PHENOL

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), Serious eye damage or eye irritation, Carcinogenicity, Hazards Not Otherwise Classified (HNOC)

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

Chemical Identity	% by weight
2-Propanol	1.0%
Methanol	1.0%

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
Phenol

US State Regulations

US. California Proposition 65

WARNING: This product can expose you to chemicals including, Ethanol which is [are] known to the State of California to cause cancer and birth defects or other reproductive harm.

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

This product can expose you to chemicals including, Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (1:1) which is [are] known to the State of California to cause cancer.
This product can expose you to chemicals including, Methanol which is [are] known to the State of California to cause birth defects or other reproductive harm.
For more information go to www.P65Warnings.ca.gov.

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

Chemical Identity
2-Propanol
Methanol
Ethanol
Phenol

US. Massachusetts RTK - Substance List

Chemical Identity
2-Propanol
Methanol
Ethanol
Phenol

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
2-Propanol
Methanol
Ethanol

US. Rhode Island RTK

Chemical Identity
2-Propanol
Methanol
Ethanol

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

Issue Date: 03/18/2021

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

Version #:	2.1
Revision Information:	
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.