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SAFETY DATA SHEET

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
212527	BOTTLE GRAM DECOLORIZER 250ML	No data available

Other means of identification

SDS number: 088100175759

Recommended use and restriction on use

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

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer

Company Name: BD Diagnostic Systems
Address: 7 Loveton Circle
21152 Sparks, MD USA
Telephone: 1 410 771 0100 or 1 800 638 8663
Fax:
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

Label Elements

Hazard Symbol:



Signal Word: Danger



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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]. 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



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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 immediate medical advice/attention. Causes serious eye irritation. May cause drowsiness or dizziness.
Ingestion:	If swallowed, rinse mouth with water (only if the person is conscious). Call a physician or poison control center immediately.
Inhalation:	Get medical attention immediately. Provide fresh air, warmth and rest, preferably in comfortable upright sitting position.
Skin Contact:	Flush contaminated area with plenty of water. Get medical attention immediately.
Eye contact:	If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

Most important symptoms/effects, acute and delayed

Symptoms:	Symptoms may be delayed.
Hazards:	Causes serious eye irritation. May cause drowsiness or dizziness.

Indication of immediate medical attention and special treatment needed

Treatment:	Get immediate medical advice/attention.
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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.
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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO ₂ , dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media:	Avoid water in straight hose stream; will scatter and spread fire.



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Specific hazards arising from the chemical: Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Exposure to fire can generate toxic fumes. Fire or excessive heat may produce hazardous decomposition products.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Flammable. May form explosive or toxic mixtures with air.

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: 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. Prevent entry into waterways, sewer, basements or confined areas. Sweep up and place in a clearly labeled container for chemical waste. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

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

7. Handling and storage

Precautions for safe handling: Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, on clothing. Do not eat, drink or smoke when using the product. Read and follow manufacturer's recommendations. Wash promptly with soap and water if skin becomes contaminated. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities: Store in tightly closed original container in a dry, cool and well-ventilated place.

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



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BD, Franklin Lakes, NJ
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			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)
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



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			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 (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

Adequate ventilation should be provided so that exposure limits are not exceeded.

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:** Use suitable protective gloves if risk of skin contact.
 - Other:** Wear appropriate clothing to prevent reasonably probable skin contact.
- 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.



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Hygiene measures: Do not eat, drink or smoke when using the product. Do not get this material in contact with skin. Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray.

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: 56.1 - 82.0 °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 (%): 18.0 %(V)
Flammability limit - lower (%): 3.5 %(V)
Explosive limit - upper: No data available.
Explosive limit - lower: No data available.

Vapor pressure: 186.0 hPa
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.

Other information

Minimum ignition temperature: 425.0 °C

10. Stability and reactivity

Reactivity: Stable under normal temperature conditions and recommended use.



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Chemical Stability:	No data available.
Possibility of hazardous reactions:	Do not subject to grinding/shock/friction/. Contact with acids and metals can lead to violent decomposition.
Conditions to avoid:	Heat, sparks, flames. Shocks and physical damage. Avoid conditions which create dust.
Incompatible Materials:	Strong acids. Strong oxidizing agents. Peroxides. Other metals or alloys.
Hazardous Decomposition Products:	By fire, toxic gases may be formed (COx, NOx).

11. Toxicological information

General information: This material is toxic.

Information on likely routes of exposure

Ingestion: May irritate and cause malaise.

Inhalation: Toxic by inhalation.

Skin Contact: Toxic in contact with skin.

Eye contact: May irritate 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.

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 Product: No data available.



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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.

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.



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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.

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



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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 data available.

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

2-Propanol 53 % (5 d) Detected in water. Experimental result, Key study

2-Propanone 56 % Detected in water. Experimental result, Supporting study
90.9 % (28 d) Detected in water. Experimental result, Key study
76 % Detected in water. Experimental result, Supporting study
38 % Detected in water. Experimental result, Supporting study
74.3 - 95.4 % (26 d) Detected in water. Experimental result, Supporting study

BOD/COD Ratio

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: No data available.



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13. Disposal considerations

General information: This material and its container must be disposed of as hazardous waste.

Disposal instructions: Dispose of waste at a facility with special permission to dispose industrial wastes subject to special control. Waste should be accompanied by a manifest for the industrial wastes.

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: 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.



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15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. 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):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
2-Propanol	100 lbs.
2-Propanone	5000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard
Immediate (Acute) Health Hazards
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)

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
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SARA 313 (TRI Reporting)

<u>Chemical Identity</u>	<u>Reporting threshold for other users</u>	<u>Reporting threshold for manufacturing and processing</u>
2-Propanol	10000 lbs	25000 lbs.

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

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.

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.



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

Chemical Identity

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
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Issue Date: 06/19/2020

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.