

MATERIAL SAFETY DATA SHEET

PRODUCT *BD E-Z Care™ 70% Ethyl Alcohol*
NAME: *Catalog No. 372403 (Brushless Antiseptic),
372408, and 382409 (Rinseless, Brushless
Antiseptic)*
Date: *03/23/06* **Revision #:** *3*



PRODUCT AND COMPANY INFORMATION – SECTION 1

Manufacturer/Distributor: *Becton Dickinson Medical Systems
9450 South State Street
Sandy, UT 84070
801-565-2300 Toll Free: 800-453-4538*

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT:

*In the continental U.S., call: 888.237.2762 (24 hour)
For additional information, call: 801.565.2300*

Product Name: BD E-Z Care™ 70% Ethyl Alcohol Catalog Numbers 372403 (Brushless Antiseptic), 372408, and 372409 (Rinseless, Brushless Antiseptic)

Synonyms: None

DOT Identification Number: UN 1170

COMPOSITION INFORMATION – SECTION 2

<u>Chemical Name</u>	<u>Percent</u>	<u>CAS Number</u>	<u>Exposure Limits</u>
Ethanol, denatured	70	64-17-5	OSHA PEL: 1000 PPM ACGIH TLV: 1000 PPM
Non-hazardous propriety mixture	30	N/A	N/A

OSHA REGULATORY STATUS

	This material is classified as not hazardous under OSHA regulations.
	While this material is not classified as hazardous under OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.
X	This material is classified as hazardous under OSHA regulations.

HAZARDS IDENTIFICATION – SECTION 3

EMERGENCY OVERVIEW	<ul style="list-style-type: none">▪ Caution! Flammable liquid.▪ Overexposure may cause skin and eye irritation.▪ Keep away from eyes and mouth▪ Avoid breathing vapors▪ Clear gray to milky white liquid.
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HAZARDS IDENTIFICATION – SECTION 3 - Continued

PRIMARY ROUTES OF EXPOSURE:

Inhalation

POTENTIAL HEALTH EFFECTS:

Eyes:

May cause irritation, permanent eye damage, and/or blindness.

Skin:

May cause irritation, dryness, and defatting.

Inhalation:

May cause headache and/or drowsiness, as well as irritation of throat.

May cause nausea, vomiting, and/or CNS depression.

Ingestion:

May cause nausea, vomiting, and/or CNS depression.

CHRONIC HEALTH EFFECTS:

Eyes:

May cause permanent eye damage and/or blindness.

Skin:

May cause irritation, dryness, and defatting.

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion:

Long term repeated oral exposure may result in progressive liver injury with fibrosis.

FIRST AID MEASURES – SECTION 4

SEEK MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE.

FIRST AID MEASURES – SECTION 4 - Continued

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FIRST AID MEASURES:

Eyes:

Hold eyelids open and flush eyes with copious amounts of water for 15 minutes.

Skin:

Wash thoroughly with plenty of soap and water.

Inhalation:

Remove victim to fresh air. Give artificial respiration if needed.

Ingestion:

Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Do not give anything by mouth to an unconscious person. Get medical attention.

FIRE FIGHTING MEASURES – SECTION 5

NFPA Classification			
Health	Fire	Reactivity	Other
1	3	0	N/A

Flammability Properties:

Flash Point: 22°C ± 2°C **Method:** Penske-Martin Closed Cup

Flammability Limits: (in air % by volume) **LEL:** 3.3 (Ethanol) **UEL:** 19.0 (Ethanol)

Autoignition Temperature:

U/K

Hazardous Combustion Products:

Carbon Monoxide and/or Carbon Dioxide may be formed.

Extinguishing Media:

Dry Chemical and carbon dioxide. Cool fire-exposed containers with water spray.

Firefighting Instructions:

As in any fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive-pressure mode.

Unusual Fire and Explosion Hazards:

Ethanol burns with an invisible flame in the daylight. Vapors are heavier than air and can travel a considerable distance to a source of ignition and flash back. Containers may rupture due to vapor pressure buildup.

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ACCIDENTAL RELEASE MEASURES - SECTION 6

Large Spill:

Wear protective equipment. Eliminate all sources of ignition. Ventilate area. Recover material if possible. Absorb spill with non-flammable absorbent, such as sand or vermiculite. Ground all handling equipment and use non-sparking tools for clean up. Prevent liquid from entering sewers or waterways.

HANDLING & STORAGE – SECTION 7

Handling:

Keep away from eyes, skin, and clothing. Wash thoroughly after use. Avoid ingestion. Avoid breathing vapors.

Storage:

Keep away from heat, sparks, and flames. Store in a cool, dry, well-ventilated area away from incompatible materials. Temperature not to exceed 104 °F.

EXPOSURE CONTROLS / PERSONAL PROTECTION – SECTION 8

ENGINEERING CONTROLS:

General and/or local exhaust to maintain exposure below TLV.

PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face Protection:

Chemical goggles or full-face shield when splashing is possible.

Skin Protection:

Chemical-resistant gloves and clothing are recommended for spill cleanup.

Respiratory Protection:

Not required for normal use. Wear NIOSH approved respirator with organic filter if TLV is exceeded.

General Hygiene Considerations:

Wash thoroughly after handling.

Other Protective Equipment:

Eye Wash, Safety Shower, and Washing Facilities.

EXPOSURE CONTROLS / PERSONAL PROTECTION – SECTION 8 – Cont.

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EXPOSURE GUIDELINES:

Ethanol: **OSHA PEL:** 1000 ppm **ACGIH TLV:** 1000 ppm

PHYSICAL & CHEMICAL PROPERTIES – SECTION 9

CONSTITUENT: Ethanol

Appearance Clear liquid
Odor Alcohol odor
Boiling Point 175° F (79° C)
Flash Point 22 °C ± 2°C
Melting Point N/A
Water Solubility Soluble
Evaporation Rate 3.3 (BUTYL ACETATE=1)
Vapor Pressure (mm Hg) 40
Vapor Density (Air=1) 1.59
Specific Gravity (H₂O = 1) 0.79
% Volatile (By Volume @ 68° F) 100

STABILITY & REACTIVITY – SECTION 10

Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

High temperatures, sparks, and open flames.

Materials to Avoid:

Strong oxidizers, strong acids.

Hazardous Decomposition Products:

Carbon monoxide and/or carbon dioxide may be formed.

Hazardous Polymerization:

Will not occur.

TOXICOLOGICAL INFORMATION – SECTION 11

Type of Test	Route of Exposure	Species Observed	Dose Data
LC50 (Ethanol)	Inhalation	Rat	20000 ppm/10H
LD50 (Ethanol)	Oral	Rat	7060 mg/kg

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ECOLOGICAL INFORMATION – SECTION 12

No significant data is available for this material.

DISPOSAL CONSIDERATION – SECTION 13

Dispose of liquid or contaminated absorbent in DOT – approved waste containers, and in accordance with all Federal, state and local regulations.

TRANSPORT INFORMATION - SECTION 14

Catalog numbers 372403 and 372408

DOT Shipping Information according to 49 CFR for domestic ground and domestic air shipments

Basic Description	<i>Domestic Ground and Domestic Air:</i> Ethyl alcohol solution, 3, UN1170, II, Ltd. Qty.
Labeling Requirements	<i>Domestic Ground:</i> Labels are not required for ground shipments. <i>Domestic Air:</i> Flammable Liquid, Class 3 label.
Marking Requirements	<i>Domestic Ground:</i> <ul style="list-style-type: none">– Ethyl alcohol solution, Ltd. Qty.– Orientation arrows and ID numbers are not required. <i>Domestic Air:</i> <ul style="list-style-type: none">– Ethyl alcohol solution, Ltd. Qty.– ID numbers are not required.– Orientation arrows are required to be marked on two opposite vertical sides of the package with the arrows pointing in the correct upright direction.
Placarding Requirements	<i>Domestic Ground and Domestic Air:</i> These products are not subject to placarding requirements.
Packaging Requirements	<i>Domestic Ground and Domestic Air:</i> These products are not subject to specification packaging requirements. The gross weight of each package may not exceed 30 kg (66 pounds).
Additional Requirements	<i>Domestic Ground and Domestic Air:</i> Emergency response information such as an emergency response guide or MSDS must be included.

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TRANSPORT INFORMATION – SECTION 14 - Continued

Refer to 49 CFR for complete marking, labeling, and packaging information.

IATA Shipping Information according to Dangerous Goods Regulations for air shipments

Basic Description	Ethyl alcohol solution, 3, UN1170, II
Labeling Requirements	<ul style="list-style-type: none"> – Class 3, Flammable Liquid label – Cargo Aircraft Only label
Marking Requirements	<ul style="list-style-type: none"> – Ethyl alcohol solution, UN1170 – Orientation arrows are required on two opposite sides.
Packaging Requirements	Specification packaging is required (Packing Instruction 307).

Refer to the IATA Dangerous Goods Code for complete marking, labeling, and packaging information.

IMDG Shipping Information according to the IMDG Code for water shipments

Basic Description	There are two suitable descriptions: 1. Ethyl alcohol solution, 3, UN1170, II, Ltd. Qty. OR 2. Dangerous Goods in Limited Quantities of Class 3, UN1170, II
Labeling Requirements	Labels are not required.
Marking Requirements	Packages must be marked in either of two ways: 1. Ethyl alcohol solution, UN1170 OR 2. Dangerous Goods in Limited Quantities of Class 3, UN 1170, II Cargo transport units should be marked "LIMITED QUANTITIES"
Packaging Requirements	The gross weight of each package may not exceed 30 kg (66 pounds).

Refer to the IMDG Code for complete marking, labeling, and packaging information.

Catalog Number 372409

DOT Shipping Information according to 49 CFR for domestic ground and domestic air shipments

Basic Description	<i>Domestic Ground and Domestic Air:</i> Ethyl alcohol solution, 3, UN1170, II Ltd. Qty.
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TRANSPORT INFORMATION – SECTION 14 - Continued

Labeling Requirements	<i>Domestic Ground:</i> Labels are not required for ground shipments. <i>Domestic Air:</i> Flammable Liquid, Class 3 label.
Marking Requirements	<i>Domestic Ground:</i> – Ethyl alcohol solution, Ltd. Qty – Orientation arrows and ID numbers are not required <i>Domestic Air:</i> – Ethyl alcohol solution, Ltd. Qty – ID numbers are not required – Orientation arrows are required to be marked on two opposite vertical sides of the package with the arrows pointing in the correct upright direction.
Placarding Requirements	<i>Domestic Ground and Domestic Air:</i> These products are not subject to placarding requirements.
Packaging Requirements	<i>Domestic Ground and Domestic Air:</i> These products are not subject to specification packaging requirements. The gross weight of each package may not exceed 30 kg (66 pounds).
Additional Requirements	<i>Domestic Ground and Domestic Air:</i> Emergency response information such as an emergency response guide or MSDS must be included.
Refer to 49 CFR for complete marking, labeling, and packaging information.	

IATA Shipping Information according to Dangerous Goods Regulations for air shipments

Basic Description	Ethyl alcohol solution, 3, UN1170, II
Labeling Requirements	Class 3, Flammable Liquid label
Marking Requirements	– Ethyl alcohol solution, UN1170 – Orientation arrows are not required.
Packaging Requirements	Specification packaging is required (Packing Instruction 305).
Refer to the IATA Dangerous Goods code for complete marking, labeling, and packaging information.	

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TRANSPORT INFORMATION – SECTION 14 - Continued

IMDG Shipping Information according to the IMDG Code for water shipments

Basic Description	There are two suitable descriptions: 1. Ethyl alcohol solution, 3, UN1170, II, Ltd. Qty. <i>OR</i> 2. Dangerous Goods in Limited Quantities of Class 3, UN1170, II
Labeling Requirements	Labels are not required.
Marking Requirements	– Packages must be marked in either of two ways: 1. Ethyl alcohol solution, UN1170 <i>OR</i> 2. Dangerous Goods in Limited Quantities of Class 3, UN 1170, II – Cargo transport units should be marked "LIMITED QUANTITIES"
Packaging Requirements	The gross weight of each package may not exceed 30 kg (66 pounds).
Refer to the IMDG Code for complete marking, labeling, and packaging information.	

REGULATORY INFORMATION – SECTION 15

US REGULATIONS (Ethanol)

CAA Section 112Not Listed
 CERCLANot Listed
 IARCSubstances Not Assigned an Overall
 Evaluation
 NTPTesting Program Substance
 OSHAAir Contaminants (Table Z-1)
 SARA TITLE IIINot Listed
 TSCAListed

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REGULATORY INFORMATION – SECTION 15 - Continued

STATE REGULATIONS (Ethanol)

MA Substance ListTeratogen with sufficient evidence of
risk in humans
NJ RTK Hazardous Substance ListListed
PA Hazardous Substance ListListed
Canadian WHMISIngredient must be disclosed at
concentration of 0.1%
Minnesota Hazardous Substances List .Listed

OTHER INFORMATION - SECTION 16

Revision Number	Revision Date
3	03/23/06

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability 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. The possibility exists that the EU will not recognize this MSDS due to the fact that several components of the MSDS are reflective of ANSI Z-400.1-1998. Although ILO (International Labor Organization) has adopted ANSI Z-400.1-1998, ultimate disposition lies with the competent authority.