

**Safety Data Sheet**  
acc. to OSHA HCS

Date Prepared: 03/22/2017

Reviewed On: 03/22/2017

**1 Identification**

- **Product Identifier:**
- **Product Name:** E-Z Scrub 4% CHG
- **Catalog Number:** 371073
- **Application of the substance / the mixture** Skin Antiseptic.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Becton Dickinson (BD)  
9450 South State Street  
Sandy, UT 84070  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663  
Email Address: Technical\_Services@bd.com
- **Information Department:** Technical Service
- **Emergency telephone number:**  
1-801-565-2300 (US 24 hour) +001 801-565-2300 (International 24 hour)  
In case of a chemical emergency, spill, fire, exposure, or accident contact Chemtrec: 800-424-9300 or +001 703-527-3887 (International).  
In case of a chemical emergency, spill, fire, exposure, or accident, contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



Skull and crossbones

Acute Tox. 3     H301 Toxic if swallowed.

Acute Tox. 3     H311 Toxic in contact with skin.



Health hazard

Carc. 2             H351 Suspected of causing cancer.



Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).

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**· Hazard pictograms**

GHS06 GHS08 GHS09

**· Signal word** *Danger***· Hazard-determining components of labeling:***chlorhexidine gluconate*  
*2,2'-iminodiethanol***· Hazard statements***H301+H311 Toxic if swallowed or in contact with skin.**H351 Suspected of causing cancer.**H400 Very toxic to aquatic life.***· Precautionary statements***P280 Wear protective gloves/protective clothing/eye protection/face protection.**P273 Avoid release to the environment.**P264 Wash thoroughly after handling.**P270 Do not eat, drink or smoke when using this product.**P201 Obtain special instructions before use.**P202 Do not handle until all safety precautions have been read and understood.**P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**P321 Specific treatment (see on this label).**P312 Call a POISON CENTER/doctor if you feel unwell.**P308+P313 IF exposed or concerned: Get medical advice/attention.**P330 Rinse mouth.**P302+P352 IF ON SKIN: Wash with plenty of water.**P391 Collect spillage.**P361+P364 Take off immediately all contaminated clothing and wash it before reuse.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***· Information pertaining to particular dangers for man and environment***CHG may cause permanent damage / deafness when instilled in the middle ear May cause permanent damage if permitted to enter and remain in the ears or eyes for a long period of time***· NFPA ratings (scale 0-4)***Health = 1**Flammability = 0**Reactivity = 0*

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· **HMIS ratings (scale 0-4)**

HEALTH	1	Health = 1
FIRE	0	Flammability = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixture**
- **Description:** Mixture consisting of the following components.

· **Dangerous Components:**

CAS: 18472-51-0 EINECS: 242-354-0	chlorhexidine gluconate Acute Tox. 2, H300; Acute Tox. 1, H310; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	4.34%
CAS: 111-42-2 EINECS: 203-868-0	2,2'-iminodiethanol Carc. 2, H351; STOT RE 2, H373; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315	3.28%

- **Additional information Risk phrases refer to section 15.**

### 4 First-aid measures

- **Description of first aid measures**
- **General information** No special measures required.
- **After inhalation**  
Seek medical treatment in case of complaints.  
Overexposure may cause headache, fatigue, dizziness, loss of coordination, and unconsciousness. Vapor has anesthetic properties.
- **After skin contact**  
Immediately rinse with water.  
Seek medical treatment.
- **After eye contact**  
Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing**  
Harmful if swallowed  
Wash out mouth with water. Treat with gastric lavage using milk, egg white, or mild soap.  
Seek medical attention.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents**  
Water  
Foam  
Fire-extinguishing powder  
Carbon dioxide
- **Special hazards arising from the substance or mixture**  
Carbon dioxide, carbon monoxide, hydrogen chloride gas, nitrogen oxides, ammonia.
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Wipe up with damp sponge or mop.
- **Methods and material for containment and cleaning up:** No special measures required.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7 Handling and storage**

- **Handling**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:**  
No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Store at room temperature (20 - 25 °C) or (68 - 77 °F)  
Avoid excessive heat (above 40 °C or 104 °F)
- **Information about storage in one common storage facility:**  
Store away from oxidizing agents.

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- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed containers.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical systems:**  
No further data; see Section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal Protective Equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
Gloves are not required for normal conditions of use,  
Use gloves for spill cleanup.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing (lab coat).

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Color:	Clear
	Pink
	Red
- **Odor:** Characteristic
- **Odor threshold:** Not determined.
- **pH-value:** 6.0 - 7.5
- **Change in condition** Undetermined
- **Melting point/Melting range:** Similiar to water.
- **Boiling point/Boiling range:** Similiar to water.
- **Flash point:** Not applicable

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· <b>Flammability (solid, gaseous)</b>	Not applicable.
· <b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not self igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density:</b>	
<b>Relative density</b>	1.06 g/cm <sup>3</sup> (8.846 lbs/gal)
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Soluble
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>dynamic:</b>	50-500 CPS
<b>kinematic:</b>	Not determined.
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**  
Incompatible material: strong oxidizers.  
Anionic Compounds.
- **Hazardous decomposition products:**  
Carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>)  
Nitrogen oxides (NO<sub>x</sub>)  
Ammonia (NH<sub>4</sub>)

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Hydrogen chloride (HCl) gas

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### 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **Primary irritant effect:**

- **on the skin:** May cause irritation to skin and mucous membranes.

- **on the eye:** Strong irritant with the danger of severe eye injury.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

The product is not subject to OSHA classification according to internally approved calculation methods for preparations.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

111-42-2	2,2'-iminodiethanol	2B
7647-01-0	hydrochloric acid	3
123-91-1	1,4-dioxane	2B
75-21-8	ethylene oxide	1

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

75-21-8	ethylene oxide
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### 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

Harmful to aquatic organisms; may cause long-term adverse effects in the aquatic environment. Low toxicity to sewage microorganisms.

LC-50: Zebra danio (*Danio rerio*) 2.08 mg/L (96 hour)

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

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- **Ecotoxicological effects:**
- **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

#### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Smaller quantities can be disposed of with solid waste.  
This product is not considered a RCRA hazardous waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

#### 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, ADN, IMDG, IATA</b>	Void
· <b>UN proper shipping name</b>	
· <b>DOT, ADN, IMDG, IATA</b>	Void
· <b>Transport hazard class(es)</b>	
· <b>DOT, ADN, IMDG, IATA</b>	
· <b>Class</b>	Void
· <b>Packing group</b>	
· <b>DOT, IMDG, IATA</b>	Void
· <b>Environmental hazards:</b>	Product contains environmentally hazardous substances: chlorhexidine gluconate
· <b>Marine pollutant:</b>	Yes
· <b>Special precautions for user</b>	Not applicable.

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- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:** Not dangerous according to the above specifications.
- **UN "Model Regulation":** Void

#### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

111-42-2 | 2,2'-iminodiethanol

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **California Proposition 65 - Chemicals known to cause cancer**

111-42-2 | 2,2'-iminodiethanol

123-91-1 | 1,4-dioxane

75-21-8 | ethylene oxide

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

75-21-8 | ethylene oxide

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

75-21-8 | ethylene oxide

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

75-21-8 | ethylene oxide

· **Carcinogenic categories**

· **TLV (Threshold Limit Value established by ACGIH)**

111-42-2	2,2'-iminodiethanol	A3
7647-01-0	hydrochloric acid	A4
123-91-1	1,4-dioxane	A3
75-21-8	ethylene oxide	A2

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

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**Hazard pictograms**

GHS06 GHS08 GHS09

**Signal word Danger****Hazard-determining components of labeling:**chlorhexidine gluconate  
2,2'-iminodiethanol**Hazard statements**

H301+H311 Toxic if swallowed or in contact with skin.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P312 Call a POISON CENTER/doctor if you feel unwell.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water.

P391 Collect spillage.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/  
international regulations.**Chemical safety assessment: A Chemical Safety Assessment has not been carried out.****16 Other information**

To the best of our knowledge, the information contained herein is accurate. However, neither Becton, Dickinson and Company or any of its subsidiaries assumes any liabilities 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 can not guarantee that these are the only hazards that exist.

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- **Department issuing SDS:**  
*Environmental, Health & Safety*  
*Created by Michael J. Spinazzola*
- **Contact:** *Technical Service Representative*
- **Abbreviations and acronyms:**  
*IMDG: International Maritime Code for Dangerous Goods*  
*DOT: US Department of Transportation*  
*IATA: International Air Transport Association*  
*ACGIH: American Conference of Governmental Industrial Hygienists*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*HMS: Hazardous Materials Identification System (USA)*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*OSHA: Occupational Safety & Health*  
*TLV: Threshold Limit Value*  
*PEL: Permissible Exposure Limit*  
*REL: Recommended Exposure Limit*  
*Acute Tox. 2: Acute toxicity – Category 2*  
*Acute Tox. 3: Acute toxicity – Category 3*  
*Acute Tox. 4: Acute toxicity – Category 4*  
*Acute Tox. 1: Acute toxicity – Category 1*  
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*  
*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*  
*Carc. 2: Carcinogenicity – Category 2*  
*Carc. 2: Carcinogenicity – Category 2*  
*STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2*  
*Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*  
*Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*

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