DESCO INDUSTRIES INC. Technical Bulletin TB-7046

Application Instructions Reztore™ ESD Hand Lotion and Reztore™ Clean Hand Lotion







Figure 1. Reztore™ ESD Hand Lotion.

Description

Desco Industries, Inc. Reztore™ ESD Hand Lotion and Reztore™ Clean Hand Lotion are specially formulated for use in the electronic manufacturing environment. Per ESD Handbook TR20.20 paragraph 5.3.2.4.3 Test Procedure, "If the [wrist strap test] resistance is still too high, dry skin might be the problem. Dry skin conditions can be resolved by applying moisturizing lotion on the wrist and repeating the resistance test again. The moisturizing lotion should be one that is compatible with process requirements." The moisturizing hand lotion can be used to enhance the effectiveness of ESD control wrist straps, particularly for individuals with dry skin. It will absorb immediately into the skin without interfering with grip or dexterity. The lotion is free of chemicals that may adversely affect solderability or cause corrosion of electronic components. Reztore™ Hand Lotion is available in 8 oz. (235 ml) plastic bottles (sold in cartons of twelve bottles), 32 oz. (1 litre) bottles with pumps, or in one 1 gallon (3.8 litre) bottles with pumps.

Reztore™ Hand Lotion can also be used with ESD footwear. Per ESD Handbook TR20.20 section 5.3.3.5 Common Testing Problems "Occasionally, footwear may indicate a high resistance. Outside of the shoe material itself being a contributor to high resistance, the wearer's skin (if dry), heavy or insulative socks, or the absence of a sweat layer due to differences in temperature between the inner surfaces of the shoes and the wearer's feet."

General Guidelines

Reztore[™] Hand Lotion can be applied to hands and wrists to increase the conductivity of the skin and reduce skin dryness. It is not recommended for application to the face. The lotion is chemically and biologically stable and is free of soaps, glycerin, lanolin, free-salts, silicone and mineral oil. Avoid contact with eyes. If eye contact occurs wash with water.

Directions

Apply a small amount of Reztore™ Hand Lotion onto the palm of the hand. Using your hands, rub the lotion into skin areas which are either dry or where increased conductivity is desired, especially on the wrists where the wrist strap will be in direct contact. Gently rub the lotion into the skin until it is absorbed. Remove the excess lotion with a towel.

Specifications

Viscosity: 6000 Brookfield 20 Speed Spindle #4

Color: White Odor: Pleasant :Ha $7.5 \pm .5$

Contaminants: No soap, lanolin, free-salts, silicones,

or mineral oil

% Solids: $7.5 \pm 2\%$

Package: 8 oz. (235 ml) plastic squeeze bottles, 32

oz. (1 litre) bottles with pumps, or 1 gallon

(3.8 litre) bottles with pumps

Freeze: Passes three freeze-thaw cycles

Features - Benefits

- · Moisturizing formula improves wrist strap contact with skin and relieves chapping and insulating dry skin
- · Free of contaminants so that nothing is transferred to the work
- Non-acidic to prevent corrosion of electronic components
- Contains aloe vera, moisturizers, and vitamins to promote healing and help achieve healthier hands and mails
- · No lanolin, silicone, mineral oil, or insulators that will contaminate electronic components

NOTE: Reztore[™] Hand Lotion does not have a set life span. The chemicals are not known to degrade over time when stored at the proper temperature conditions as stated in the Material Safety Data Sheet. We also recommend that this product be stored in its original container and be sealed when not in use.

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Limited Warranty

Desco Industries, Inc. expressly warrants that for a period of one (1) year from the date of purchase, our Reztore™ ESD Hand Lotion and Reztore™ Clean Hand Lotion will be free of defects in material. Within the warranty period, the material will be replaced at our option, free of charge. Call our Customer Service Department at 781-821-8370 or 00 44 (0) 1892-665313 in Europe for a Return Material Authorization (RMA) and proper shipping instructions and address. You should include a copy of your original packing slip, invoice, or other proof of purchase date. Any material under warranty should be shipped prepaid to the Desco Industries, Inc. factory. Warranty replacements will take approximately two weeks.

Warranty Exclusions

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESSED AND IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH ARE SPECIFICALLY DISCLAIMED. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean, or repair products.

Limit of Liability

In no event will Desco Industries, Inc. or any seller be responsible or liable for any injury, loss, or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.

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Material Safety Data Sheet

May be used to comply with ANSI Z400.1-2004, 29 CFR 1910.1200, European 2001/58/EC, REACH 1907/2006/EC, and GHS. Standard must be consulted for specific requirements.

Degree of Hazard

4 = Extreme 1 = Slight 3 = High 0 = Insignificant

NFPA Designation 704

2 = Moderate Special Hazard

HMIS RATING: Health 1, Flammability 0, Physical Hazard 0, Personal Protection B

0

0

0

0

Health

(Blue)

Flammability

(Red)

Reactivity

(Yellow)

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name/Identity: Reztore™ ESD Hand Lotion and Reztore™ Clean Hand Lotion

Chemical Name: Reztore™ ESD Hand Lotion

Manufacturer: Desco Industries, Inc Address: One Colgate Way Canton, MA 02021

 Telephone:
 781-821-8370

 Emergency Number:
 781-821-8370

 Date Prepared:
 2010-02-08

SECTION 2 — HAZARDS IDENTIFICATION

Routes of Entry

Eyes: May cause irritation, tearing, or blurred vision.

Skin: May cause slight irritation of the skin. Ingestion: May cause nausea and vomiting.

Inhalation: None known.

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

 Hazardous Ingredients:
 CAS No.
 Weight (%)

 Water
 7732-18-5
 60-100%

 Propylene Glycol
 57-55-6
 1-5%

 Stearic Acid
 57-11-4
 1-5%

 Cetyl Alcohol
 36653-82-4
 1-5%

*These items are listed and subjected to the reporting requirements of the SARA Title III Section 313 Inventory of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR372.

SECTION 4 — FIRST AID MEASURES

Emergency and First Aid Procedures:

Eye Contact: Flush with water for at least 15 minutes. Contact a physician if irritation persists. Skin Contact: Wash with soap and water. Wash clothing before reuse. Contact a physician if

irritation persists.

Ingestion: Drink several glasses of water. Induce vomiting. Contact a physician. Inhalation: Move subject to fresh air. Contact a physician if irritation persists.

SECTION 5 — FIREFIGHTING MEASURES

Proper Extinguishing Media: N/A
Unsuitable Extinguishing Methods: N/A

Protective Equipment & Precautions: Wearing of appropriate protective equipment and clothing

Flash Point (Method Used): N/A Flammable Limits: N/A

Special Fire Fighting Procedures: None required. Unusual Fire and Explosion Hazards: None known.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal Precautions: None needed. Environmental Precautions: None known.

Waste Disposal Method: Mop with soap and water. Flush with copious amounts of water.

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SECTION 7 — HANDLING AND STORAGE

No special precautions need be taken. Handling:

Storage: Store above 40°F to prevent freezing. Warm to melt. The maximum recommended

storage temperature is 120°F. Keep container tightly closed.

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Control Parameters: None Measures for Technical Control: None Respiratory Protection (Specify Type): None Hand Protection: None Eve Protection: None Chemical splash goggles (ANSI Z-87.1) None

Other Protective Clothing or Equipment: Eyewash station

Work/Hygienic Practices: Wash hands before eating, smoking or using washroom facilities

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Viscous liquid Form: White lotion Colour: Odor: Peach or none **Boiling Point:** >200°F (94°C) Melting Point: >150°F Specific Gravity (H2O = 1): 1.01 Solubility in Water: Complete pH: 7-8

Flash Point: Noncombustible

Flammability Limits: N/A Vapor Pressure (mm Hg): N/A Vapor Density (air=1): N/A Density at 20°C: N/A

Flammability: Classification according to EC-regulations "non-flammable"

Ignition Temperature: N/A **Evaporation Rate:** N/A

SECTION 10 — STABILITY AND REACTIVITY

Hazardous Decomposition/Byproducts: None Incompatibility (Materials to Avoid): None

Stability/Reactivity: Stable product at normal conditions.

Conditions to Avoid: Temperatures above 49°C/120°F Below: 1°C/34°F

SECTION 11 — TOXICOLOGICAL INFORMATION

Propylene Glycol (57-55-6)

Acute Toxicity Lethal Doses LD50 Oral Rat 02020KMGG BWT LD50 Skin Rabbit 82000KMGGBWT

Stearic Acid (57-11-4)

Acute toxicity

LD50 Oral - rat - > 2,000 mg/kg LD50 Oral - rat - > 2,000 mg/kg LD50 Dermal - rabbit - > 5,000 mg/kg LD50 Dermal - rabbit - > 5,000 mg/kg

Cetyl Alcohol (36653-82-4)

Acute toxicity

LD50 Oral - rat - 5,000 mg/kg

Remarks: Cardiac:Other changes. Lungs, Thorax, or Respiration:Other changes.

LD50 Dermal - rabbit - > 2,600 mg/kg

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SECTION 12 — ECOLOGICAL INFORMATION

No environmental hazards have been reported or known.

Mobility: The product is aqueous and will be separated in aqueous conditions

Degradability: Bioaccumulation: Not likely None known Ecotoxicity:

Reference to BimSchV: N/A

Hazard Classification: None hazardous

SECTION 13 — DISPOSAL CONSIDERATIONS

Product: Ensure the disposal is in accordance with local authorities.

Hazardous Waste Number: Nonregulated

SECTION 14 — TRANSPORT INFORMATION

This product is not classified for transport under ADR/IMDG regulations

SECTION 15 — REGULATORY

INFORMATION

Physical/Chemical Indication: Non-flammable

Risk-Phrase: (R22): Harmful if swallowed,

(R36): Irritating to the eyes.

Safety-Phrase: (S2): Keep away from children, (S7): Keep containers well closed.

(S25): Avoid contact with eves.

(S42): If swallowed, do not induce vomiting; seek medical advice immediately and

show this container or label.

This product does not have to be classified according to the EU Regulations. EU Classification:

(67/548/EEC-88/379/EEC)

TSCA: All ingredients of this product are listed or are excluded from the listing on the U.S.

Toxic Substance Control Act (TSCA) Chemical Substance inventory.

REACH: This product does not require REACH registration.

SECTION 16 — OTHER INFORMATION

HMIS RATING: Health 1, Flammability 0, Physical Hazard 0, Personal Protection B

NFPA RATING: Special Hazard 0, Health 0, Flammability 0, Reactivity 0

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N/A = Not Applicable; NE = None Established

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