DESCO INDUSTRIES INC. Technical Bulletin TB-7046

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



Made in the United States of America

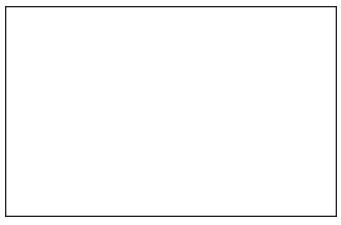


Figure 1. Reztore™ ESD Hand Lotion.

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, 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

Color:WhiteOdor:PleasantpH: $7.5 \pm .5$

Contaminants: No soap, lanolin, 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.

NFPA Designation 704

Degree of Hazard 4 = Extreme 1 = Slight

3 = High 0 = Insignificant

2 = Moderate

Special Hazard

Health 0 (Blue) 0 0 Reactivity (Yellow)

Flammability

(Red)

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

SECTION 1 — IDENTIFICATION

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

Recommended Use: **ESD Hand Lotion** Manufacturer: Desco Industries, Inc Address: One Colgate Way Canton, MA 02021

781-821-8370 Telephone: **Emergency Number:** 781-821-8370 Date Prepared: 2013-01-01

SECTION 2 — HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION. MAY BE MILDLY IRRITATING TO EYES

Routes of Entry

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

Skin: None

Ingestion: May cause nausea and vomiting.

Inhalation: N/A

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

CAS No. Weight (%) Ingredients: Water 7732-18-5 60-100% Propylene Glycol 57-55-6 1-5% Stearic Acid 57-11-4 1-5% Cetyl Alcohol 1-5% 36653-82-4 Glycerides, tallow mono-, di- and tri, hydrogenated 68308-54-3 1-5%

SECTION 4 — FIRST AID MEASURES

Flush with water for at least 15 minutes. **Eye Contact**

Skin Contact

Ingestion DO NOT induce vomiting, may cause damage to mouth, throat, or

esophagus. Contact a physician.

N/A Inhalation

SECTION 5 — FIREFIGHTING MEASURES

Proper Extinguishing Media The product is not flammable. Extinguish fire using media suitable

for surround fire.

Protective Clothing Wear appropriate protective clothing

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal Precautions Wearing protective clothing. Wear proper eye protection.

Keep spills and cleaning runoffs out of municipal sewers and open bodies **Environmental Precautions**

of water.

Soak up with sawdust, sand or other absorbent material. Shovel or Steps to be taken in case

of spill sweep up. Flush spill area with water.

Waste Disposal Method Discard material according to local, state, and federal regulations. Other Precautions Mop up spills immediately. Wet floor may present slip hazard.

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SECTION 7 — HANDLING AND STORAGE

Avoid contact with eyes. Do not swallow. Wear gloves and safety glasses or Handling

goggles if handling large quantities For external use only.

Storage Storage Temperature: Max. 49°C/120°F-1°C/34°F. Keep from freezing. Keep

out of reach of children.

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Avoid contact with eyes. Use safety eyewear with splash guards or side shields. Eye protection

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

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical State Viscous Liquid

Color White

Odor Peach or none

рΗ 7-8

212°F (100°C) Boiling Point at °C

Melting Point at °C 45°C

Flash Point at °C Noncombustible

Inflammability Limits N/A

(vol.% in air)

Solubility in water Soluble Vapor Pressure (mmHg) N/A Vapor Density (air=1) N/A Density at 20°C N/A Specific Gravity (H20=1) 1.0 - 1.1

Inflammability Classification according to EC-regulations "non-flammable"

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

SECTION 10 — STABILITY AND REACTIVITY

Stability/Reactivity Stable product at normal conditions

Conditions to avoid Temperatures above 49°C/120°F and below 1°C/34°F Materials to avoid Avoid contamination with strong acids and oxidizing agents Hazardous Decomposition Thermal decomposition may yield carbon monoxide.

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

No special precautions. Dispose of according to all federal, Product

state and local regulations.

Hazardous Waste Number Non regulated

SECTION 14 — TRANSPORT INFORMATION

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

SECTION 15 — REGULATORY

INFORMATION

Safety-Phrase:

Physical/Chemical Indication: Non-flammable

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

(R36): Irritating to the eyes. (S2): Keep away from children, (S7): Keep containers well closed.

(S25): Avoid contact with eyes, (S42): If swallowed, do not induce vomiting; seek medical

advice immediately and show this container or label. **EU Classification:** This product does not have to be classified according to the EU Regulations.

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

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

U.S. Toxic Substance Control Act (TSCA) Chemical Substance inventory.

REACH: This product does not require REACH registration.

WHIMIS: This product has been classified according to the hazard criteria of the CPR and

the MSDS contains all the information required by the CPR.

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

Disclaimer

The information given in this publication has been worked up to the best of the knowledge of Desco Industries Inc, as well as taking into consideration the applicable laws and regulations. We cannot anticipate all conditions under which this information and our products or the products of the manufac-turers in combination with our products may be used. We accept no responsibility for the results obtained by the application information or the safety and suitability of our product or product combination with other products. Users are advised to make their own tests to determine the safety and suitabil-ity of each such product or product combination for their own purposes. Unless otherwise agreed in writing, we sell the products without warranty, and buyers end users assume responsibility and liability for loss or damage arising from the handling and use of our products, whether used alone or in combination with other products.

N/A = Not Applicable; NE = None Established

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