= DESCO INDUSTRIES, INC. TECHNICAL BULLETIN TB-7000 =

Reztore™ Surface & Mat Cleaner **Application Instructions**



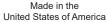




Figure 1. Reztore™ Surface & Mat Cleaner: 16 Ounces (500 ml) Spray Bottle 1 Quart (1 liter) Spray Bottle 2.5 Gallons (10 liters) Bag-in-Box

Description

Reztore™ Surface & Mat Cleaner is a non-toxic liquid cleaner used to remove dust, grease, grime, fingerprints, and solder flux from all surfaces used in a static sensitive area. Reztore™ Surface & Mat Cleaner leaves no insulative residue, contains no alkali or ammonia, and is nonflammable.

General Guidelines

Reztore™ Surface & Mat Cleaner is a liquid cleaner which can be used on a variety of surfaces, especially surfaces used in a static sensitive environment. Surfaces include but are not limited to: rubber, vinyl and polyethylene table and floor mats, field service kits, laminated table tops, tote boxes, epoxy, painted surfaces, plexiglass, glass, metal, 3-ring binders, computer screens, computer keyboards, shelving, push carts, conveyor belts, etc.

NOTE: Cleaners with silicone leave an insulative residue on surfaces and solvents such as 2-Butoxyethanol or Ethanolamine used in cleaners can dry out the material; both can prevent conductive or dissipative mats from functioning properly.

"Periodic cleaning, following the manufacturer's recommendations, is required to maintain proper electrical function on all work surfaces. Ensure that cleaners that are used do not leave an electrically insulative residue common with some household cleaners that contain silicone." (ESD Handbook ESD TR20.20 section 5.3.1.14 Worksurface Maintenance)

"Only cleaning materials or processes which do not degrade the properties of the ESD protective items. shall be used." (EN 61340-5-1 clause 5.5 EPA working practices)

Directions

Smooth Surfaces:

Apply Reztore™ Surface & Mat Cleaner to the entire surface to be treated using either the pump or trigger spray bottle. Use a lint-free cloth to wipe the surface until dry. For set stains, let Reztore™ Surface & Mat Cleaner soak on the surface for 30 seconds before wiping clean.

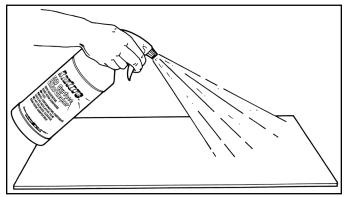


Figure 2. Applying Reztore™ to the mat

Other Surfaces - Keyboards:

Dampen a lint-free cloth or a lint-free swab with Reztore™ Surface & Mat Cleaner. Wipe surface to be cleaned using either the cloth or swab. The swab will work best for tight spots like between keyboard keys. Use the cloth to wipe clean the remaining surfaces of the keyboard.

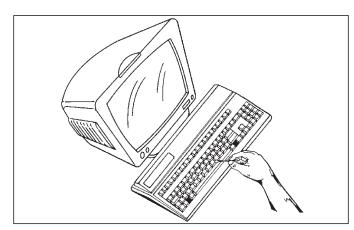


Figure 3. Cleaning a keyboard or computer screen with Reztore™ Surface & Mat Cleaner

On non-ESD surfaces, we recommend using Reztore™ Topical Antistat static dissipative coating. While coating is on the surface it will enhance existing ESD surfaces and will give dissipative electrical properties to insulative surfaces.

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Specifications

Appearance of Solution	Transparent violet	
рН	6.0 - 8.0	
Odor	Slight floral	
Solubility	Water, acetone, alcohols	
Toxicity, Irritation, Sensitivity	Non-toxic by dermal contact, or inhalation	
Flammability	Classification according to NFPA and OSHA as "non-flammable", Flammable Category 3	
Ion Level (mg/l)	Fluoride 0.3 Sulfate <0.5 Nitrate 1.2 Bromide <0.5 Phosphate <0.5	
Electrical Properties (Dry Film)	1 x 10 ⁷ to < 1 x 10 ⁹ ohms (ref. ANSI/ESD S4.1)	
Static Decay Rate	<0.01 seconds (per FTMS 101C Method 4046)	

Testing

It is recommended to test the surface after cleaning to ensure that all insulative contaminants such as dirt and grime have been removed. Reztore™ Surface & Mat Cleaner will only leave behind a coating with a surface resistance of less than 1 x 109 ohms.

Storage

Reztore™ Surface & Mat Cleaner product 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 Safety Data Sheet. We also recommend that this product be stored in its original container and be sealed when not in use.

RoHS, REACH, and Conflict Minerals Statement

See the Desco Industries RoHS, REACH, and Conflict Minerals Statement:

http://www.descoindustries.com/ROHS.aspx

Desco Industries Limited Warranty

See the Desco Industries Limited Warranty: http://www.descoindustries.com/Warranty.aspx

Reztore™ Surface and Mat Cleaner is available from these Desco Industries brands:

DESCO

for service and support in North America

16 Oz.	<u>10439</u>
1 Quart	1043
2.5 Gallons	10438

CHASLE2///

for service and support in United Kingdom

1 Litre	<u>71021</u>
1 Litre 12 Packs	71025
10 Litres	71028

Vermason

for service and support in United Kingdom

1 Litre	229021
1 Litre 12 Packs	229022
10 Litres	229023

DESCO ASIA

for service and support in Asia

0.5 Liter	<u>10439</u>
1 Liter	<u>10435</u>
10 Liters	<u>10438</u>

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Safety Data Sheet

May be used to comply with ANSI Z400.1-2004, 29 CFR 1910.1200, Regulation (EC) No 1272/2008 (CLP Regulation) and GHS. Standards must be consulted for specific requirements.

NFPA Designation 704

Degree of Hazard 4 = Extreme

1 = Slight 3 = High0 = Insignificant

2 = Moderate

Flammability (Red) Health (Blue) 0 Instability (Yellow) Special Hazard

Revision Date: 2017-04-11 HMIS RATING: Health 1, Flammability 1, Reactivity 0, Personal Protection B

SECTION 1 — IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product Name: Reztore™ Surface and Mat Cleaner

EC No.: None **REACH Registration No.:** None CAS No.: None

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use: Cleaner, ESD Surface & Mat

1.3 Details of the supplier of the safety data sheet

Manufacturer: Desco Industries, Inc.

> One Colgate Way. Canton, MA 02021 781-821-8370

Email Address: Service@DescoIndustries.com

1.4 Emergency telephone number

Emergency Number: 781-821-8370

SECTION 2 — HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Flammable liquid	Category 2	
Eye irritation	Category 2	
Specific target organ toxicity (Single exposure)	Category 3	

2.2 Label elements

Symbol: Flame, Exclamation mark.

Signal word: Danger.

(H225): Highly flammable liquid and vapour. Hazard statement:

(H319): Causes serious eye irritation.

(H336): May cause drowsiness or dizziness.

Precautionary statements: (P210): Keep away from heat, hot surfaces, sparks, open flames and other

ignition sources. No smoking.

(P240): Ground/bond container and receiving equipment.

(P241): Use explosion-proof electrical/vetilating/lighting equipment.

(P242): Use only non-sparking tools.

(P261): Avoid breathing dust/fume/gas/mist/vapours/spray.

(P264): Wash hands thoroughly after handling.

(P271): Use only outdoors or in a well-ventilated area.

(P280): Wear protective gloves/protective clothing/eye protection/face

protection.

(P303+P361+P353): IF ON SKIN (or hair): Take off immediarely all

contaminated clothing. Rinse skin with water/shower.

(P304+P340+P312): IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel

unwell.

(P305+P351+P338): IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

(P337+P313): If eye irritation persists: Get medical advice/attention.

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(P403+P235): Store in a well-ventilated place. Keep cool.

(P233): Keep container tightly closed.

(P405): Store locked up.

(P501): Dispose of contents/container in compliance with all Federal,

National and Local laws and regulations.

2.3 Other hazards N/A

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Hazardous Ingredients CAS No. Weight % Isopropanol 67-63-0 5 - 25 %

SECTION 4 — FIRST AID MEASURES

4.1 Description of first aid measures

Eye Contact Flush with water for at least 15 minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. If eye irritation persists: Get medical

advice/attention.

Skin Contact Wash with soap and water. If skin irritation occurs: Get medical advice/

attention.

Ingestion Drink several glasses of water. DO NOT induce vomiting. Contact a

physician.

Inhalation Move subject to fresh air.

4.2 Most important symptoms and effects, both acute and delayed

N/A

4.3 Indication of any immediate medical attention and special treatment needed

N/A

SECTION 5 — FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media Water Unsuitable Extinguishing Methods N/A

5.2 Special hazards arising from

the substance or mixture N/A

5.3 Advice for firefighters

In the event of fire wear self-contained breathing apparatus.

Cool containers with water.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wearing protective clothing. Inhalation protection. Extinguish all ignition sources.

6.2 Environmental precautions

Biodegradable.

6.3 Methods and materials for containment and cleaning up

Contain and collect material into plastic container. Water rinse and drain, flush small amounts. Use sanitary landfill disposal. Follow national and local regulations (RCRA; Subtitle D).

If Material is Released/Spilled: Keep spectators away. Contain spill with inert material (e.g. sand, earth). Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

6.4 Reference to other sections

See SECTION 13, Disposal Considerations, for information regarding the disposal of contained spills.

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SECTION 7 — HANDLING AND STORAGE

7.1 Precautions for safe handling

Use in well-ventilated areas; avoid breathing vapors. Keep containers closed when not in use. Avoid from freezing.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry place with adequate ventilation. Keep from freezing - product may coagulate.

Storage temperature: Max. 49°C/120°F 1°C/34°F

7.3 Specific end uses

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

TLV-value 400 ppm maximum for Isopropanol.

Hazardous Ingredients CAS No. **TLV-value** Isopropanol* 67-63-0 400 ppm

8.2 Exposure controls

Technical Control Measures Preferences of technical measure to prevent or control contact with the

> product. Isolating process and personnel, mechanical ventilation (dilution and local exhaust) and the regulation of process conditions. In case of non-prevention or non-control, a proper protective wearing should be used.

Hygiene Measures Wash hands before eating, smoking, or using washroom facilities

Individual protection measures

Eye/Face Protection Safety glasses or Chemical splash goggles as defined in ANSI Z-87.1 or a

similar standard.

Skin Protection No precautions other than clean body covering clothing should be needed.

Hand Protection Impervious/Neoprene Gloves.

Respiratory Protection Wear MSHA/NIOSH approved respirator where exposure limits are

exceeded.

Ingestion Use good personal hygiene. Do not consume or store food in the work

area. Wash hands before smoking or eating.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Liquid. Appearance: Color: Clear violet. Odor: Floral Alcohol.

Odor Threshold: N/A. pH: 6.0 - 8.0Melting Point: N/A.

Boiling Point: >200°F (93.3°C) Flash Point: 106°F (41°C)

Evaporation rate: 0.28

Flammability: Classification according to NFPA and OSHA as "non-flammable".

Flammable Category 3 according to EU and GHS.

Upper flammability or explosive limits: N/A Lower flammability or explosive limits: N/A Vapor Pressure (mm Hg): 18.0 Vapor Density (air=1): 1.06

Relative Density: 8.17 lbs./gal at 20°C

Specific Gravity $(H_2O = 1)$: 0.98 Solubility: Completely

Partition coefficient: N/A Auto-ignition temperature: N/A Decomposition temperature: N/A Viscosity: N/A

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N/A Explosive properties: Oxidizing properties: N/A

9.2 Other information

VOC per Method 24 of EPA: 1% VOC by wt.

SECTION 10 — STABILITY AND REACTIVITY

10.1 Reactivity N/A

10.2 Chemical stability

Stable product at normal conditions.

10.3 Possibility of hazardous

reactions N/A

10.4 Conditions to avoid

Temperatures above 100°F (38°C) and below 34°F (1°C)

10.5 Incompatible materials

Strong Oxidizers.

10.6 Hazardous decomposition products

Thermal decomposition may yield carbon monoxide.

SECTION 11 — TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

All information refers to the main component Isopropanol

Acute toxicity: None known. Special Effects: None known.

SECTION 12 — ECOLOGICAL INFORMATION

12.1 Toxicity N/A

12.2 Persistence and degradability N/A

12.3 Bioaccumulative potential

Not likely.

12.4 Mobility in soil

The product is aqueous and will be separated in aqueous conditions.

12.5 Results of PBT and

vPvB assessment N/A 12.6 Other adverse effects N/A

12.7 Additional Information

No environmental hazards have been reported or known.

SECTION 13 — DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Contain and collect material into plastic container. Water rinse and drain,

flush small amounts. Use sanitary landfill disposal. Follow state and local

regulations (RCRA; Subtitle D).

13.2 Additional information N/A

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SECTION 14 — TRANSPORT INFORMATION

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

This product is not classified as a flammable liquid according to DOT and IATA transportation standards and is not regulated as such.

14.1 UN Number N/A 14.2 UN proper shipping name N/A 14.3 Transport hazard class(es) N/A 14.4 Packing group N/A 14.5 Environmental hazards N/A 14.6 Special precautions for user N/A

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

N/A

SECTION 15 — REGULATORY INFORMATION

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

Non-flammable (NFPA and OSHA), Flammable (EU and GHS) Physical/Chemical Indication

*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 CFR37.

CAS Number: 67-63-0 with maximum weight 25%

EINECS Status All components are included in the EINECS Inventories.

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

the U.S. Toxic substance.

REACH This product does not required REACH registration.

15.2 Chemical Safety Assessment N/A

SECTION 16 — OTHER INFORMATION

HMIS RATING Health 1, Flammability 1, Reactivity 0, Personal Protection B NFPA RATING Special Hazard: N/A, Health: 1, Flammability: 1, Instability: 0

2017-04-11 **SDS Updated**

Disclaimer

OTHER INFORMATION: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or quarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitableness and completeness of such information for his own particular use.

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