

Reztore® Surface & Mat Cleaner

Application Instructions



Made in the
United States of America



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 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 according to NFPA and OSHA, is "non-flammable".

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.

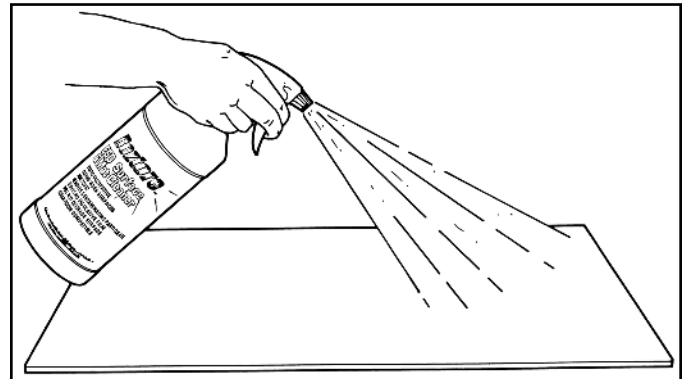


Figure 2. Applying Reztore® to the mat

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.

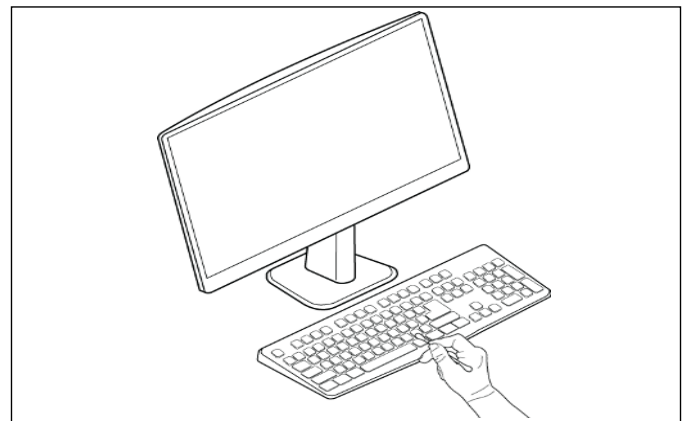


Figure 3. Cleaning a keyboard or computer screen with Reztore® Surface & Mat Cleaner

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.

Specifications

Appearance of Solution	Transparent violet
pH	6.0 - 8.0
Odor	Slight floral
Solubility	Water, acetone, alcohols
Toxicity, Irritation, Sensitivity	Non-toxic by dermal contact, or inhalation
Flammability	"Non-flammable" per NFPA and OSHA. Flammable Cat. 3 per CLP
Ion Level (mg/L)	Fluoride 0.3 Sulfate <0.5 Nitrate 1.2 Bromide <0.5 Phosphate <0.5
Electrical Properties (Dry Film)	1×10^7 to $< 1 \times 10^9$ 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 1×10^9 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:

DescoIndustries.com/ROHS.aspx

Desco Industries Limited Warranty

See the Desco Industries Limited Warranty:

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.	10439
1 Quart	10435
2.5 Gallons	10438

DESCO EUROPE

for service and support in United Kingdom and Europe

1 Litre	229021
1 Litre 12 Packs	229022
10 Litres	229023

DESCO ASIA

for service and support in Asia

0.5 Liter	10439
1 Liter	10435
10 Liters	10438

SAFETY DATA SHEET

May be used to comply with OSHA Hazcom 29 CFR 1910.1200, Reg. (EU) No.453/2010 and Japan JIS 7253-2012). Standards must be consulted for specific requirements.

Revision Date: 2018-06-26

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

Supplier: DESCO INDUSTRIES INC

United States
One Colgate Way
Canton, MA 02021
+1 781-821-8370

United Kingdom
2A Dunhams Lane
Letchworth Garden City
Hertfordshire, SG6 1BE
+44 (0) 1462 672005

Japan
661-1 Yachimata-ho
Yachimata-Shi
Chiba-Ken 289-1115
+81 43-309-4470

Email Address: Service@DescolIndustries.com

1.4 Emergency telephone number

United States: +1 781-821-8370
United Kingdom: +44 (0) 1462 672005
Japan: +81 43-309-4470

Office hours: 8:00 AM - 5:00 PM

SECTION 2 — HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Classification according to OSHA Hazcom 29 CFR 1910.1200, Regulation (EC) No 1272/2008, JIS 7252-2014

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

2.2 Label elements

Labelling according to OSHA Hazcom 29 CFR 1910.1200, Regulation (EC) No 1272/2008, JIS 7252-2014

Hazard pictograms/Symbols:



Signal word:

Warning

Hazardous statements:

H226 Flammable liquid and vapor
H319 Causes serious eye irritation
H336 May cause drowsiness or dizziness

Precautionary statements:

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting equipment.

Response

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately 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 + P337 + P313 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

N/A

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixture**

Components	CAS No.	%wt.	Classification
Isopropanol	67-63-0	5 - 25 %	OSHA 29CFR 1910.1200: Flammable liquids - Category 2 Eye Irritation - Category 2A STOT - Category 3 Reg. (EC) No. 1272/2008: Flammable liquids - Category 2 Eye Irritation - Category 2 STOT - Category 3 JIS 7252-2014 Flammable liquids - Category 2 Eye Irritation - Category 2 Reproductive toxicity - Category 2 STOT SE - Category 1,3 STOT RE - Category 1,2

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

None known

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically

SECTION 5 — FIRE FIGHTING MEASURES**5.1 Extinguishing media**

Suitable Extinguishing Media	Use an extinguishing agent suitable for the surrounding fire
Unsuitable Extinguishing Methods	N/A

5.2 Special hazards arising from the substance or mixture**Hazards from the substance or mixture:** Unknown**Hazardous thermal decomposition products:** Unknown

5.3 Advice for firefighter

Special protective actions for fire-fighters: Cool endangered receptacles with water spray. Remove containers from path of fire when safe to do so. Do not approach containers suspected to be hot.

Special protective equipment for fire fighters: Wear self-contained breathing apparatus and protective suit.

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 1, Emergency contact information.

See SECTION 8, Information on appropriate personal protective equipment.

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

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

N/A

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value/Notation
Isopropanol CAS No.: 67-63-0	EU ACGIH	TWA	200 ppm
	EU ACGIH	STEL	400 ppm
	US OSHA Z-1	TWA	980 mg/m ³ 400 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

Avoid contact with eyes. Use safety eye wear with splash guards or side shields (ANSI Z-87.1).

For EU: Safety glasses (with side shields) should be consistent with EN 166 or equivalent.

Skin Protection

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

Hand Protection

Chemical protective gloves is not needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized. In case of using gloves, use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Avoid gloves made of: Polyvinyl alcohol ("PVA").

For EU:

In case of using gloves, use chemical resistant gloves classified according to standard SS-EN 374: Protective gloves against chemical and microorganisms.

In case of prolonged contact or repeated contact, it is recommended gloves with protection index grade 4 or higher (breakthrough time longer than 120 minutes according to standard SS-EN 374).

When only short-term contact is expected, it is recommended gloves with protective index class 1 or higher (breakthrough time longer than 10 minutes according to standard SS-EN 374).

Respiratory Protection

For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. In the case of vapor formation use a respirator with an approved filter. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process.

For EU: Use the following CE-approved filters: Filters against organic gases with prefilter to particles, type AP2.

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

Appearance:	Liquid
Color:	Clear violet
Odor:	Floral Alcohol
Odor Threshold:	No data available
pH:	6.0 - 8.0
Melting Point:	No data available
Boiling Point:	>200°F (93.3°C)
Flash Point:	106°F (41°C)
Evaporation rate:	0.28
Flammability:	Flammable
Upper flammability or explosive limits:	No data available
Lower flammability or explosive limits:	No data available
Vapor Pressure (mm Hg):	18.0
Vapor Density (air=1):	1.06
Relative Density:	8.17 lbs./gal at 20°C
Specific Gravity (H ₂ O = 1) :	0.98
Solubility:	Completely
Partition coefficient:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2 Other information

VOC per Method 24 of EPA:	9.4% VOC by wt.
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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

Acute Effects

Inhalation	Slight irritation
Eye Contact	Slight irritation
Skin Contact	Slight irritation
Ingestion	N/A

Acute Toxicity

Isopropanol	Oral Toxicity	(Rat)	LD50 = 5,045 mg/kg
CAS No.: 67-63-0	Dermal Toxicity	(Rabbit)	LD50 = 12,800 mg/kg
	Inhalation Toxicity	(Rat)	LC50 = 37.5 mg/l (4 h)

SECTION 12 — ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

The product is aqueous.

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Product:

Additional ecological information According to experience and to the information currently available, the product has no harmful effects on the environment if used correctly as intended.

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

DESCO INDUSTRIES INC - 3651 Walnut Avenue, Chino, CA 91710 • (909) 627-8178 • Website: DescolIndustries.com

SECTION 14 — TRANSPORT INFORMATION

DOT (Department of Transportation) Not regulated for transport
 Classification for SEA transport (IMO-IMDG) Not regulated for transport
 Classification for AIR transport (IATA/ICAO) Not regulated for transport
14.1 UN Number None
14.2 UN proper shipping name None
14.3 Transport hazard class(es) None
14.4 Packing group None
14.5 Environmental hazards None
14.6 Special precautions for user None
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
 Not applicable

SECTION 15 — REGULATORY INFORMATION

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

US Regulations:

Superfund Amendment and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986)

Section 302 No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section 313 The following components are subject to reporting levels established by SARA Title III, Section 313:
 Isopropanol (CAS No.: 67-63-0)

Right To Know

	Massachusetts RTK	Pennsylvania RTK	New Jersey RTK
Isopropanol CAS No.: 67-63-0	X	X	X

California Proposition 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

EINECS Status All components of this product are listed or excluded from the EINECS Inventories
TSCA All components of this product are listed or excluded from listing on United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory
REACH This product does not required REACH registration according to Regulation (EC) 1272/2008

15.2 Chemical Safety Assessment N/A

SECTION 16 — OTHER INFORMATION

HMIS RATING	Health 1, Flammability 2, Reactivity 0, Personal Protection B
NFPA RATING	Special Hazard: N/A, Health: 1, Flammability: 2, Instability: 0
SDS Updated	2018-06-26

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 guarantee 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 suitability and completeness of such information for his own particular use.