

Rezto[™] Topical Antistat Application Instructions



Made in the
United States of America



Figure 1. Rezto[™] Topical Antistat
1 quart (1 litre) spray bottle
2.5 Gallon (10 litre) Bag-in-Box

Description

Rezto[™] Topical Antistat is a topical antistatic solution for use on dissipative and non-ESD surfaces. After Rezto[™] Topical Antistat has been applied and the surface dries, an antistatic and protective static dissipative coating is left behind. The static dissipative coating will allow charges to drain off when grounded. The antistatic properties will reduce triboelectric voltage to under 200 volts. Rezto[™] Topical Antistat will enhance existing electrical properties of ESD surfaces and give non-ESD surfaces electrical properties until the hard coat is worn away. Rezto[™] Topical Antistat does not leave behind any harmful insulative barriers.

General Guidelines

Rezto[™] Topical Antistat 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.

Directions

Surfaces:

Apply Rezto[™] Topical Antistat to the entire surface to be treated using either the pump or trigger spray bottle. Use a lint-free cloth to wipe the surface evenly. For rough or porous surfaces two coats may be needed to obtain proper protection.

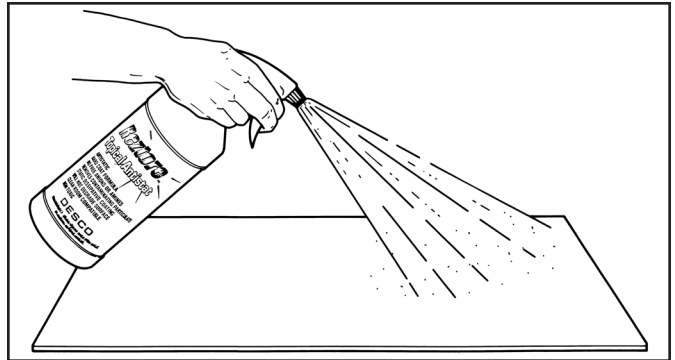


Figure 2. Applying Rezto[™] Topical Antistat to the mat.

Other Surfaces - Keyboards:

Dampen a lint-free cloth or a lint-free swab with Rezto[™] Topical Antistat. Wipe surface to be protected using either the cloth or swab. The swab will work best for tight spots like between keyboard keys. Use the cloth to wipe the remaining surfaces of the keyboard or surface to be protected.

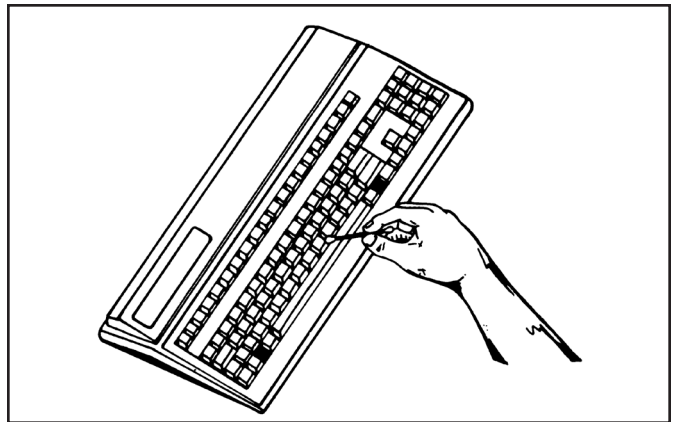


Figure 3. Cleaning a keyboard with Rezto[™] Topical Antistat

When dry, Rezto[™] Topical Antistat will leave a thin protective antistatic, as well as static dissipative coating on the surface. This enhances existing ESD surfaces and will give temporary electrical properties to insulative surfaces.

Specifications

Reztore™ Topical Antistat has zero ionic contamination, which will neither contaminate nor corrode sensitive components and assemblies.

Ion	Level (mg/l)	Limit of Detection (mg/l)
Bromide	<3	3
Chloride	<1	3
Fluoride	<0.5	0.5
Nitrate	0.5	0.5
Nitrite	<0.5	0.5
Ortho-phosphate	<5	5
Sulfate	<3	3

Meets conditions of clean room class 1 for above listed ion contaminants per FED-STD-209C.

Electrical Properties

Surface Resistance 1×10^6 to $< 1 \times 10^9$ ohms per ANSI/ESD S4.1

Triboelectric Charge <200 volts
Charge Decay .02 sec. FTMS 101C,
Method 4046

Testing

It is recommended to test the surfaces after applying to ensure that all insulative areas have been coated. Desco Industries recommends Reztore™ Surface & Mat Cleaner to thoroughly clean the surface before applying Reztore™ Topical Antistat. Reztore™ Topical Antistat is specifically designed to leave behind an antistatic as well as static dissipative coating of 10^9 ohms, to enhance and provide the static safe properties of the surface. Testing for either surface resistance point to point (RTT) or resistance to ground (RTG) will indicate if the surface is coated properly.

Field Test:

For quick and easy verification of surface resistance we recommend the use of a megohmmeter. These are available from many Desco Industries companies. For testing of static fields, we recommend the use of a static field meter. These instruments are also available from many Desco Industries companies.

Storage:

Reztore™ Topical Antistat 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 the product be stored in its original container and be sealed when not in use.

Limited Warranty, Warranty Exclusions, Limit of Liability and RMA Request Instructions

See Desco Industries Inc. Warranty
<http://www.descoindustries.com/Warranty.aspx>

RoHS 2, REACH, and Conflict Minerals Statement

None of the RoHS 2 restricted materials or REACH substances of very high concern as of 2014/12/17, or Conflict Minerals are intentionally added in manufacturing this product. Ref: European Union Directive 2011/65/EU and Regulation (EC) No. 1907/2006/CE. See Desco [Limited Warranty at DescoIndustries.com](http://DescoIndustries.com).

Reztore™ Topical Antistat is available from these Desco Industries brands:

DESCO

for service and support in North America

1 Quart [10415](#)
2.5 Gallon [10418](#)

STATGUARD FLOORING

for service and support in North America

1 Quart [10415](#)
2.5 Gallon [10418](#)

CHARLESWATER

for service and support in the United Kingdom

1 L [71035](#)
10 L [71036](#)

Vermason

for service and support in the United Kingdom

1 L [229014](#)
10 L [229015](#)

DESCO ASIA

for service and support in Asia

1 L [10415](#)
10 L [10418](#)

DESCO JAPAN

for service and support in Japan

1 L [10415](#)
10 L [10418](#)

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. Standard must be consulted for specific requirements.

NFPA Designation 704

Degree of Hazard

4 = Extreme

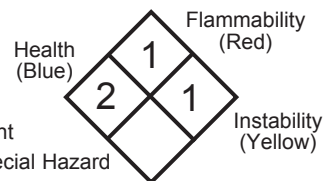
3 = High

2 = Moderate

1 = Slight

0 = Insignificant

Special Hazard



HMIS RATING: Health 2, Flammability 0, Physical Hazard 0, Personal Protection B

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name/Identity: Reztore™ Topical Antistat
Recommended use: Antistat Coating
Manufacturer: Desco Industries, Inc.
Address: One Colgate Way
Canton, MA 02021 U.S.A.
Telephone: 781-821-8370
Emergency Number: 781-821-8370

SECTION 2 — HAZARDS IDENTIFICATION

Classification:

Acute Toxicity (Oral)	Category 4
Acute Toxicity (Dermal)	Category 3
Acute Toxicity (Inhalation: Vapors)	Category 2
Skin Corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Reproductive Toxicity	Category 2
Specific Target Organ Toxicity (Single Exposure)	Single exposure, Category 1 (central nervous system, blood, kidney, liver), Category 3 (respiratory tract irritation)
Specific Target Organ Toxicity (Repeated Exposure)	Category 1 (Kidney, liver), Category 2 (blood)

Labelling:

Symbol: Skull + Crossbones, Health Hazard.

Signal word: Danger.

Hazard statement: Harmful if swallowed.
Toxic in contact with skin.
Fatal if inhaled.
Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
Causes damage to organs (central nervous system, blood, kidney, liver).
May cause respiratory irritation (respiratory tract irritation).
May cause damage to organs through prolonged or repeated exposure (blood).
Cause damage to organs through prolonged or repeated exposure (kidney, liver).

Precautionary statements:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF exposed or concerned: Call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell.
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.

Remove/Take off immediately all contaminated clothing.
Wash contaminated clothing before reuse.
Keep container tightly closed.
Store locked up.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear respiratory protection.
Do not eat, drink or smoke when using this product.
Wash mouth, skin and eyes thoroughly after handling.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Use additional personal protective equipment as required.
Dispose of contents/container in compliance with all Federal, State/Provincial and local laws and regulations.

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients:	CAS No.	Weight %
Diethylene glycol	111-46-6	0-1 %
Ethylene Glycol Monobutyl Ether*	111-76-2	5-25%

*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

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:	DO NOT induce vomiting, may cause damage to mouth, throat, or esophagus. Rinse mouth. Contact a physician.
Inhalation:	Move subject to fresh air and keep at rest in a position comfortable for breathing.

SECTION 5 — FIREFIGHTING MEASURES

Proper Extinguishing Media:	The product is not flammable. Extinguish fire using media suitable for surrounding fire.
Protective Clothing:	Wear appropriate protective clothing.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wearing protective clothing, eye protection, and, inhalation protection.
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Environmental Precautions:	Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.
Clean Up:	Soak up with sawdust, sand, or other absorbent material. Shovel or 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 floors may present slip hazard.

SECTION 7 — HANDLING AND STORAGE

Handling:	Use in well-ventilated areas; avoid breathing vapors. Keep containers closed when not in use. Avoid from freezing. For commercial and industrial use only.
Storage:	Storage temperature: Max. 49°C/120°F 1°C/34°F. Keep from freezing. Ensure the storage area is well ventilated.

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits

Hazardous Ingredients:	CAS No.	TLV-value	OSHA PEL
Ethylene glycol monobutyl ether	111-76-2	20 ppm	50 ppm / 240 mg/m3

Engineering Controls

Control Parameters:	TLV-value 20 ppm maximum for Ethylene Glycol Monobutyl and Dioxane.
Ventilation:	Provide general clean air dilution or local exhaust ventilation in volume and pattern to prevent air contaminant concentration build-up.

Personal Protection (PPE)

Respiratory Protection	Wear MSHA/NIOSH approved respirator where exposure limits are exceeded.
Protective Gloves:	If there is potential for prolonged or repeated skin contact, wear plastic gloves for the duration of anticipated exposure.
Eye protection:	Avoid contact with eyes. Use safety eye wear with splash guards or side shields.
Other Protective Equipment:	None normally required. If unable to avoid prolonged or repeated contact with skin, wear protective clothing.
Work/Hygienic Practices:	Wash hands before eating, smoking, or using washroom facilities.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.
Color:	Clear.
Odor:	N/A.
Odor Threshold:	N/A.
pH:	6.5-7.5
Boiling Point:	>200°F (94°C).
Melting Point:	N/A.
Flash Point:	Noncombustible.
Flammability Limits:	N/A.
Evaporation Rate:	N/A.
Solubility in Water:	Complete.
Vapor Pressure (mm Hg):	18.0
Vapor Density (air=1):	<1.0
Specific Gravity (H2O = 1):	1.0 - 1.2
Density at 20°C:	8.17 lbs./Gal.

Ignition Temperature:	N/A.
Decomposition Temperature:	N/A.
Partition coefficient:	N/A.
VOC per Method 24 of EPA:	6% VOC by wt.

*This product meets VOC requirements per Title 17, California Code of Regulations, Division 3 Chapter 1, Subchapter 8.5, Article 2, Section 94509.

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

Ethylene Glycol Monobutyl Ether (111-76-2)

Acute Toxicity:

Ingestion:	LD50, Guinea Pig 1,400 mg/kg. LD50, Rat, male 1,746 mg/kg.
Skin Absorption:	LD50, Rat, 2,270 mg/kg. LD50, Rabbit 99-610 mg/kg.
Inhalation:	LD50, Guinea Pig > 2,000 mg/kg. LC50, 7 h, Vapor, Rat 700 ppm.

Diethylene Glycol (111-46-6)

Acute Toxicity:

Ingestion:	LD50, Hamster, 12565 mg/kg.
Skin Absorption:	LD50, Hamster, 11890 mg/kg.

Acute Effects:

Eye Contact:	May cause irritation of the connective tissue.
Skin Contact:	Repeated or continuous contact may cause irritation of the skin.
Inhalation:	Irritation of nose, throat, and lack of breath.
Ingestion:	None known.

SECTION 12 — ECOLOGICAL INFORMATION

Mobility:	The product is aqueous and will be separated in aqueous conditions.
Degradability:	N/A.
Bioaccumulation:	Not likely.
Ecotoxicity:	None known.
Reference to BimSchV:	N/A.
Hazard Classification:	None Hazardous.

SECTION 13 — DISPOSAL CONSIDERATIONS

Product: No special precautions. Dispose of according to all federal, state and local regulations.

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: (R20/21/22): Harmful by inhalation, in contact with skin and if swallowed.
(R36/37): Irritating to eyes and skin.

Safety Phrase: (S2): keep away from children, (S25): avoid contact with eyes
(S26): In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. (S36/37): wear suitable protective clothing and gloves.
(S46): If swallowed, seek medical advice immediately and show this container or SDS.

EINECS Status: All components are included in the EINECS Inventories
SARA 313 Regulated Ethylene Glycol Monobutyl Ether (111-76-2).

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

Pennsylvania (Worker and Community Right-To-Know Act): Ethylene Glycol Monobutyl Ether (111-76-2).

WHIMIS: This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

SECTION 16 — OTHER INFORMATION

HMIS RATING: Health 2, Reactivity 0, Flammability 0, Personal Protection B

NFPA RATING: Special Hazard: N/A, Health: 2, Flammability: 1, Instability: 1

SDS Updated: 2015-04-08

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.