# ESD SYSTEMS.com.TECHNICAL BULLETIN TB-5532

# Resque 2 Topical Antistat Application Instructions







Figure 1. Resque 2 Topical Antistat Item No. 96558 1 quart, 12/case Item No. 96559 2.5 gallon, bag-in-box

# **Description**

Resque 2 Topical Antistat is a topical antistatic solution for use on dissipative and non-ESD surfaces. After Resque 2 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 300 volts. Resque 2 Topical Antistat will enhance existing electrical properties of ESD surfaces and give non-ESD surfaces electrical properties until the hard coat is worn away. Resque 2 Topical Antistat does not leave behind any harmful insulative barriers.

#### **General Guidelines**

Resque 2 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 Resque 2 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.

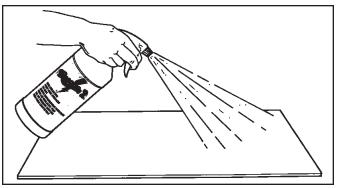


Figure 2. Item No. 96558, 1 Quart Trigger Spray

# Other Surfaces - Keyboards:

Dampen a lint-free cloth or a lint-free swab with Resque 2 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.

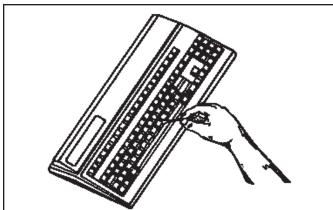


Figure 3. Cleaning a keyboard with Resque 2 Topical Antistat

When dry, Resque 2 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.

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# **Specifications**

Resque 2 Topical Antistat has zero ionic contamination, which will neither contaminate or corrode sensitive components and assemblies.

lon	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 Resistivity Surface Resistance		EOS/ESD-S11.11 ISO 2878
Triboelectric Charge 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. SPI Westek recommends Resque 2 Surface & Mat Cleaner to thoroughly clean the surface before applying Resque 2 Topical Antistat. Resque 2 Topical Antistat is specifically designed to leave behind an antistatic as well as static dissipative coating of 10<sup>9</sup> 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 guick and easy verification of surface resistance SPI Westek recommends the use of our 94055 Mini Meg Pocket Megohmmeter. For detailed information on the Mini Meg ask for Technical Bulletin TB-5514.

# **Megohmmeter Test:**

SPI Westek recommends the ESD S4.1 test method using the megohmmeter for both RTT and RTG testing. The SPI Westek 19780 Surface Resistance Test Kit will provide all equipment necessary to test in accordance with the EOS/ESD standard. For further detailed information on the Surface Resistance Test Kit ask for Technical Bulletin TB-5515.

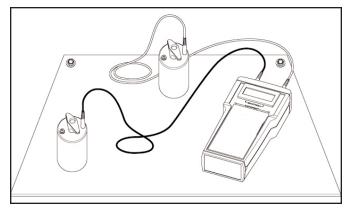


Figure 4. 94057 set up to test resistance to a groundable point

NOTE: Resque 2 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 Material Safety Data Sheet. We also recommend that the product be stored in its original container and be sealed when not in use.

# **Limited Warranty**

SPI Westek expressly warrants that for a period of one (1) year from the date of purchase, SPI Westek Resque 2 Topical Antistat will be free of defects in material. Within the warranty period, the product will be replaced at SPI Westek's option, free of charge. Call our Customer Service Department at (909) 664-9986 for a Return Material Authorization (RMA) and proper shipping instructions and address. Include a copy of your original packing slip, invoice, or other proof of purchase date. Any product under warranty should be shipped prepaid to the SPI Westek factory. Warranty replacements will take approximately one week.

### 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 SPI Westek 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**

Material Safety Data Sheet maybe used to comply with EC, according to 91/155EC and ANSI Standard Z400.1-1998

Date: September 19, 2003

# NFPA Designation 704

Degree of Hazard

4 = Extreme 1 = Slight3 = High0 = Insignificant

2 = Moderate



# **REZTORE 2 TOPICAL ANTISTAT**

#### 1. DENTIFICATION OF THE PRODUCT and OF THE ENTERPRISE

Chemical name: Cleaner and Coating, Antistatic and low charging

Manufacturer: Desco Industries Inc. Charleswater

> 90 Hudson Road Unit 17. Milbrook Business Park

Canton, MA 02021 Sybron Way

Crowborough, East Sussex TN 3JZ U.S.A.

United Kingdom

**Emergency** Phone: (781) 821-8370 Phone: 00 44 (0) 1892-665313

Fax:(781) 575-0172 Fax: 00 44 (0) 1892-668838

#### 2. INFORMATION ON INGREDIENTS/COMPOSITION

Ingredients	Weight	CAS-No.	TLV-value	R-Phrases
Nonylphenol Exhoxylate	1-5	127087-87-0	NE	
Diethylene Glycol*	1-5	111-46-6	50 ppm	R22
Ethylene glycol monobutyl ether	5-10	111-76-2	25 ppm	R20/21/22 R36/38
Water	60-100	7732-18-5	NE	

\*These items are listed on the SARA Title III Section 313 Inventory

**HMIS Rating** Health Reactivity Flammability 0 Personal Protection В

#### 3. HAZARDS IDENTIFICATION

**Hazard description:** Not applicable

#### Information concerning particular hazards for human and environment:

The product does not have to be labeled due to the calculation procedure of the "General Classification guidelines for preparations of the EU" in the latest valid version.

#### 4. FIRST AID MEASURES

Eye Contact Flush with water for at least 15 minutes.

Skin Contact Wash with soap and water

Ingestion DO NOT induce vomiting, drink 2 glasses of water. Contact a physician.

Inhalation Move subject to fresh air.

# 5. EXTINGUISHING MEASURES

Proper Extinguishing Media Water

Protective Clothing Wearing of appropriate protective equipment

Special Procedures

# 6. MEASURES TO EXPOSURE OF PRODUCT

Personal Precautions Wearing protective clothing. Inhalation protection.

**Environmental Precautions** None Known, Biodegradable

Dike and collect material into plastic container. Water rinse and drain, flush small amounts. Cleaning Procedures Use sanitary landfill disposal. Follow local, state, and federal regulations (RCRA; Subtitle D).

#### 7. HANDLING AND STORAGE

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

Avoid from freezing.

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

Keep from freezing

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#### 8. EXPOSURE CONTROL/PERSONAL EXPOSURE

Control Parameters TLV-value 25 ppm maximum for Ethylene Glycol Monobutyl Ether, 50 ppm for Diethylene Glycol.

Other Regulations

Measures For Technical Control 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.

Respiratory Protection Not Required. Wear MSHA/NIOSH approved respirator where exposure limits are exceeded

Hand Protection Impervious/Neoprene Gloves

Chemical Splash Goggles (ANSI Z-87.1) Eye Protection

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

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Liquid Color Clear Smell Mild pН 7.0-8.0 Boiling Point at °C >200°F (100°C) Melting Point at °C N/A Flash Point at °C Noncombustible

N/A (vol.% in air) **Inflammability Limits** Solubility in water Complete VOC per Method 24 of EPA 6% VOC by wt.

Vapor Pressure (mmHg) 18.0 Vapor Density (air=1) < 1.0 Density at 20°C 8.17 lbs./gal Specific Gravity (H20=1) 1.0-1.2 Ignition Temperature N/A **Evaporation Rate** <1.0

#### 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 Strong oxidizing and reducing agents

Hazardous Decomposition None Known

#### 11. TOXICOLOGICAL INFORMATION

Ingredient-Material Description	PEL	TLV (twa)		LD50 (mg/kg)		LC50 (ppm)
		mg/m3	ppm	(rat)	(rbt)	(rat)
				oral	dermal	inhal
Ethylene Glycol Monobutyl Ether *	50.0	0.0	25.0	470.0	220.0	0.0
Diethylene Glycol			50.0	12565	11.89	0.0
Nonvlphenol Exhoxylate				1250		

- Acute toxicity
- Primary irritant effect:
- On the skin: No irritant effect
- On the eye: No irritant effect known
- Sensitization: No sensitizing effects known
- Additional toxicological information:

The product in not classified according to the calculation method of the General EU Classification guideline for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

#### 12. ECOLOGICAL INFORMATION

No environmental hazards have been reported or known.

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

Degradability N/A Bioaccumulation Not likely None known Ecotoxicity

Reference to BimSchV N/A

Hazard Classification None Hazardous

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#### 13. DISPOSAL CONSIDERATIONS

Dike and collect material into plastic container. Water rinse, and drain, flush small amounts.

Follow local, state, and federal regulations.

Hazardous Waste Number Nonregulated

#### 14. TRANSPORT INFORMATION

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

# 15. REGULATORY INFORMATION

Labeling according To EU guideline: Observe the general safety regulations when handling chemicals. The product is not subject to

identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

Physical/Chemical indication Non-flammable

Safety Phrase (S2): keep away from children, (S36/37): Wear suitable protective clothing and gloves, (S46):

> If swallowed, seek medical advice immediately and show this container or SDS. 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.

#### 16. OTHER INFORMATION

Further Information: None Known

#### 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 manufacturers 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 suitability 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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