

ESD-SAFE FLUX DISPENSER · NEEDLE & CHISEL PEN TIPS

I.C.® ESD FLUX DISPENSERS

Static dissipative blue 2 oz bottle · Stainless needle tips (16, 20, 26 ga) or chisel pen tip · Luer-lock hub

PRODUCT DESCRIPTION

I.C. ESD Safe Flux Dispensers are designed to dispense flux safely and cleanly in any cleanroom environment. Surface resistivity of 10^9 to 10^{10} Ω /sq and an average static decay rate of 0.5 seconds at 40% RH allow ease of access into static-sensitive environments. A stainless-steel needle-tip spout dispenses a precise and consistent supply of flux with no unnecessary resistance to the operator. The **pen-tip** version uses a chiseled pen tip for a precise and consistent spread of flux.

DIRECTIONS FOR USE

Unfasten the nozzle from the base to fill the ESD bottle with flux. Tightly refasten the plug and draw the needle (or chiseled tip) through the nozzle. Fasten the nozzle and squeeze to dispense flux.

USES

- For use in a cleanroom or sterile environment
- For use in dispensing flux onto circuit boards
- For use in storing flux or solvents

APPLICATIONS

Electronics Manufacturing, Cleanrooms, Static-Sensitive Environments.

FEATURES & BENEFITS

DEPENDABLE DISPENSING	Luer lock hub seals tightly onto a UV-bonded 304 stainless steel needle; the chiseled pen tip grips tightly onto the Luer lock hub and seals for dispensing
CORROSION SAFE	Compatible with flux, no-clean, water soluble, rosin, and acid solutions
APPLICATION CONTROL	Premium pen tip provides a clean and controlled spread of flux
INDUSTRY STANDARD	3 sizes and colors: 16 gauge in black, 20 gauge in pink, 26 gauge in red
LIMITLESS ACCESSIBILITY	Eliminate lab restrictions by placing unsafe materials in ESD-safe containers
HIGH DURABILITY	MDPE is highly durable and chemical resistant
GRIP RIGHT MATERIAL	Flexible material allows for precise and appropriate resistance
LEAK-PROOF	Moldings are fitted to their matching tops and form a seal when enclosed
CLOSE QUARTERS	Material can be kept within reach inside of your workstation
ESD BLUE	Designed retaining the iconic "ESD-Safe" blue tint to be easily identifiable
EASY-SPOT MATERIAL	Translucent material allows for easily identifiable inner contents and levels
SAFER PLASTIC	Made with no PBDE, BPA, or other known plastic contaminants
CONTAMINANT-FREE	Free of amines, amides, and other known antistatic additive contaminants
STAINLESS MATERIAL	Non-stick plastic cleanses all contents and contaminants from its surface
ODOR RESISTANT	Free of trace odors or fragrances left by solvents and other chemicals
DISHWASHER SAFE	Can be washed on the top rack of a dishwasher for cleaning and reuse
ECO-FRIENDLY	Material is formulated to be recyclable and reusable



FREE OF

BPA-FREE	PHthalate-FREE
PVC-FREE	PBDE-FREE
CONTAMINANT-FREE	LEAK-FREE
DISHWASHER-SAFE	ECO-SAFE

MATERIAL & ESD DATA

MATERIAL	MDPE with antistatic additive
COLOR	ESD blue, translucent
SURFACE RESISTIVITY	10^9 to 10^{10} Ω /sq
STATIC DECAY	Average 0.5 s at 40% RH
ADDITIVES	Free of amines and amides

WORKPLACE SPECIFICATIONS

- Supports an ANSI/ESD S20.20 program
- Exceeds MIL-B-81705 & NFPA-56A: electrostatic decay in accordance with Federal Test Standard 101, Method 4046
- Tested to ESD ADV 11.21: surface resistance of electrostatically dissipative materials between 1×10^4 and $< 1 \times 10^{11}$
- Meets EIA 625 triboelectric charge standards
- Helps meet ANSI/ESD S4.1
- DOD-HDBK-263 Military Spec Compliant

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EFFICACY TESTING

Static decay (5 kV @ 40% humidity) — the ability of a grounded material to dissipate a known charge induced or applied onto its surface.

CUTOFF	MIN	MAX	AVERAGE
1%	0.04 s	0.07 s	0.05 s
10%	0.02 s	0.03 s	0.03 s

Surface resistivity (100 V @ 40% humidity), test method ASTM D257, $\Omega/\text{sq.}$

SUBJECT	MIN	MAX	AVERAGE
1%	1.86×10^{10}	2.18×10^{10}	1.97×10^{10}
10%	4.08×10^{10}	5.03×10^{10}	4.48×10^{10}

Surface resistance (100 V @ 40% humidity).

CUTOFF	MIN	MAX	AVERAGE
1%	4.22×10^8	7.00×10^8	5.51×10^8
10%	4.50×10^7	1.18×10^8	7.02×10^7

Static decay, packaging material (decay time in seconds, 5 kV @ 15% RH).

MATERIAL	PVC SLEEVE	PE FOAM	PS FOAM
Result	0.35	0.17	0.17

I.C. ESD bottles solvent residue testing (seven-day exposure). The pH of the water solutions was the same (ca. 5.9) before and after; no color change or other physical change was noted for any of the solvents.

SOLVENT	WT. RESIDUE (G)	CONC. (MG/ML)	CONC. (PPM)
L-TCE	0.0256	0.13	97
L-MEK	0.0191	0.096	120
L-IPA	0.0082	0.041	52
L-H ₂ O	<0.001	<0.01	<5

CHEMICAL PROPERTIES

I.C. ESD Safe Bottles use MDPE and an antistatic additive which is compliant with FDA regulation for use in food contact: 21 CFR 177.1520 · 21 CFR 178.2010 · 21 CFR 178.3297 · 21 CFR 178.3120. Does not contain BPA, phthalates, or heavy metals.

QUICK CHEMICAL REGULATORY REFERENCES

PROP 65	No known substances
TSCA	No known substances
SARA	No known substances
REACH	No known substances
ROHS	No known substances

SIZES & PART NUMBERS

PART NO.	SIZE	CASE	UPC
FD-1-ESD	26 ga needle, 0.009" ID, red	50	666080848118
FD-2-ESD	20 ga needle, 0.023" ID, pink	50	666080848125
FD-3-ESD	16 ga needle, 0.047" ID, black	50	666080848132
FD-PEN-ESD	Chiseled pen tip	50	666080848149
FD-PEN-TIP	Pen tips, 5-pack (no bottle)	1	666080848347

CHEMICAL COMPATIBILITY & CLEANING

For chemical compatibility or resistance information, refer to the ESD Bottle Chemical Resistance Chart at rrlotion.com/esd-bottle-chemical-resistance-chart/. Bottles can be washed on the top rack of a dishwasher for cleaning and reuse.

STORAGE & SHELF LIFE

This product has a shelf life of at least 24 months from the date of manufacture. Some ESD bottles will degrade over time depending on the solvents used and frequency of use.

REGULATORY

This product is an ESD product, manufactured and labeled in compliance with Federal Regulation and current Good Manufacturing Practices (cGMP). R&R Lotion is an FDA and EPA registered and audited facility.

FDA EST. ID	3004167955
EPA FACILITY	91651-AZ-001
FDA DRUG CODE PREFIX	59555

SAFETY DATA SHEETS

For safety, environmental, handling, first aid and disposal information, refer to the Safety Data Sheet (ESD Bottles) in the SDS library at rrlotion.com/msds/

QUALITY ASSURANCE

Facility standards. R&R Lotion products are manufactured in facilities which follow Current Good Manufacturing Practice (cGMP) and/or Cosmetic GMP requirements.

Material standards. All raw material used for production undergoes a thorough quality control process before being used for manufacturing.

Equipment standards. All equipment used in manufacturing and production areas is regularly inspected and maintained to ensure consistent and controlled results.

Finished product testing. Each batch produced by R&R Lotion goes through physical and chemical testing before being released for distribution. This involves testing of appearance, color, electrostatic discharge, and density.

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