ESD-SAFE BEVERAGE BOTTLE · WORKSTATION HARDWARE

# I.C.® ESD SPORTS BOTTLE

**Static dissipative** · Resealable drinking spout · 32 oz.

## PRODUCT DESCRIPTION

I.C. ESD Safe Sports Bottles are designed to safely store and dispense your beverage in any cleanroom or sterile environment. A resealable, leak-proof spout locks in beverage freshness and helps keep contaminants out of the workplace. Surface resistivity of $10^9$ to $10^{10}$ Ω/sq and an average static decay rate of 0.5 seconds at 40% RH suit them to static-sensitive environments. The polyethylene uses an antistatic concentrate that does not contain ethoxylated tertiary amine, the antistatic agent widely used in other bottles, so it has none of the undesirable features of surfactant-laden materials.

## DIRECTIONS FOR USE

Unfasten lid from bottle to fill the ESD bottle with beverage or liquid. Tightly refasten the lid to seal and store contents from contamination or electric discharge. Release and reseal the spout before and after use.

## USES

- For use in ESD designated areas
- For use in storing beverages or liquid
- For use in dispensing beverages or liquid

## APPLICATIONS

Electronics Manufacturing, Cleanrooms, Static-Sensitive Environments.

## FEATURES & BENEFITS

| | |
|---|---|
| LIMITLESS ACCESSIBILITY | Eliminate lab restrictions by putting your beverage in an ESD-safe container |
| RESEALABLE DESIGN | Resealable cap locks in moisture and helps keep contaminants out |
| LEAK-PROOF | Moldings are fitted to their matching tops and form a seal when enclosed |
| DURABLE, GRIP-RIGHT MDPE | Highly durable and chemical resistant; flexible for precise, appropriate resistance |
| BEVERAGE CONTACT | Bottle material is compliant with FDA food-contact regulations (see Chemical properties) |
| TEMPERATURE TOUGH | Can hold contents at up to 160°F |
| CLOSE QUARTERS | Material can be kept within reach inside your workstation |
| ESD BLUE, EASY-SPOT | Iconic "ESD-Safe" blue tint; translucent so contents and levels are easy to see |
| SAFER, CONTAMINANT-FREE | No PBDE, BPA, amines, amides or other known plastic or antistatic additive contaminants |
| STAINLESS MATERIAL | Non-stick plastic releases 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 |
| RECYCLABLE | Material is formulated to be recyclable and reusable |

## FREE OF

- BPA-FREE
- BISPHENOL-FREE
- PHTHALATE-FREE
- PVC-FREE
- PBDE-FREE
- AMINE & AMIDE-FREE
- LEAK-FREE
- DISHWASHER SAFE

## WORKPLACE SPECIFICATIONS

- Supports an ANSI/ESD S20.20 program
- Exceeds MIL-B-81705 & NFPA-56A (electrostatic decay per Federal Test Standard 101, method 4046)
- Tested to ESD ADV 11.21: dissipative surface resistance between $1 \times 10^4$ and $< 1 \times 10^{11}$
- Meets EIA 625 triboelectric charge standards
- Helps meet ANSI/ESD S4.1 (worksurfaces – resistance measurements)
- DOD-HDBK-263 military spec compliant

## MATERIAL

- **Material:** MDPE with antistatic additive (amine & amide free)
- **Color:** ESD blue, translucent
- **Surface resistivity:** $10^9$ to $10^{10}$ Ω/sq (average)
- **Static decay:** 0.5 sec average at 40% RH
- **Temperature:** Holds contents up to 160°F

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# I.C.® ESD SPORTS BOTTLE

## 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.

## STORAGE TEMPERATURE & 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.

## EFFICACY TESTING

**Static decay.** Ability of a grounded material to dissipate a known applied charge. Dissipates a 5kV charge 99% (1% cutoff) at 40% humidity when grounded, average decay 0.05 seconds.

**Surface resistivity (ASTM D257).** Ohm-meter resistance between two electrodes under load on the surface. Result: 1.97 x $10^{10}$ Ω/sq at 40% humidity.

| CUTOFF | MIN | MAX | AVERAGE |
|---|---|---|---|
| STATIC DECAY, 5KV @ 40% RH (SECONDS) | | | |
| 1% | 0.04 | 0.07 | 0.05 |
| 10% | 0.02 | 0.03 | 0.03 |
| SURFACE RESISTIVITY, 100V @ 40% RH (Ω/SQ) | | | |
| 1% | 1.86 x $10^{10}$ | 2.18 x $10^{10}$ | 1.97 x $10^{10}$ |
| 10% | 4.08 x $10^{10}$ | 5.03 x $10^{10}$ | 4.48 x $10^{10}$ |
| SURFACE RESISTANCE, 100V @ 40% RH (Ω) | | | |
| 1% | 4.22 x $10^{8}$ | 7.00 x $10^{8}$ | 5.51 x $10^{8}$ |
| 10% | 4.50 x $10^{7}$ | 1.18 x $10^{8}$ | 7.02 x $10^{7}$ |

**Static decay, packaging material (5kV @ 15% RH):** PVC sleeve 0.35 sec · PE foam 0.17 sec · PS foam 0.17 sec.

## SOLVENT RESIDUE TESTING

Seven-day exposure, blow-molded bottles with antistat agent (Analyze report). The antistat has no chemical reactivity with the solvents; water pH unchanged (ca. 5.9); no color or other physical change for any solvent.

| SOLVENT | WT. RESIDUE (G) | CONC. (MG/ML) | CONC. (PPM) |
|---|---|---|---|
| LARGE BOTTLE | | | |
| TCE | 0.0256 | 0.13 | 97 |
| MEK | 0.0191 | 0.096 | 120 |
| IPA | 0.0082 | 0.041 | 52 |
| H2O | <0.001 | <0.01 | <5 |
| SMALL BOTTLE | | | |
| TCE | 0.0487 | 0.70 | 520 |
| MEK | 0.0213 | 0.30 | 380 |
| H2O | <0.001 | <0.01 | <15 |

## SIZES & PART NUMBERS

| PART NO. | SIZE | CASE | UPC |
|---|---|---|---|
| SB-32-ESD | 32 oz. sports bottle, drinking spout | 12 | 666080848507 |

## 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 |

## 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 |
| GOV'T CONTRACT | GSA MAS 47QSMS24D0078 |

## CHEMICAL COMPATIBILITY

For chemical compatibility or resistance information, refer to the ESD Bottle Chemical Resistance Chart at **rrlotion.com/esd-bottle-chemical-resistance-chart/**

## 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.

**Formula testing.** Formulas are tested while being developed, including product and packaging stability testing and product effectiveness testing.

**Finished product testing.** Each batch goes through physical and chemical testing before being released for distribution, including testing of appearance, color, electrostatic discharge and density.

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