

PROVEN EFFECTIVE IN ELIMINATING STATIC-RELATED PROBLEMS

in industry, commercial and institutional facilities

Static electricity, a natural phenomenon, is the primary cause of a myriad of problems affecting industry, business and personal life. These problems can be as simple — and yet as annoying — as the shock resulting from walking across a carpet; as costly as the destruction of sensitive electronic components or jamming of machinery; and as dangerous as the ignition of combustible vapors, powders or dust.

Although there are many methods of dealing with static, most of them have serious shortcomings, such as limited effectiveness, high cost or short life.

ACL's Staticide®, an inexpensive, easy-to-use topical antistatic solution, is a highly-effective method for long-term static control. It is widely used in a broad range of industries, as well as in the office.

Available in several different formulations, Staticide is packaged in gallons or ready-to-use quart bottles with sprayers. It is easily applied on walls, ceilings, floors, carpets, fixtures, work surfaces, tools and equipment, conveyor belts, clothing and other materials. On a hard surface, one gallon of Staticide will cover several thousand square feet, and last from weeks to months, depending on the application.



- The key component in any total environmental static control program
- Meets MIL-B-81705 and NFPA-56A electrostatic decay criteria
- · Easy, inexpensive to use and long-lasting
- Effective on virtually any material
- Can be applied as spray, wipe, dip or by transfer roller coating, gravure coating or flexographic printing
- Non-toxic, non-flammable, safe to use
- Non-staining, completely biodegradable
- Effective on carpeting and tile floors
- Available in ready-to-use or concentrated form
- Effective in PC board solder fault reduction programs
- Meets the requirements for topical antistats as listed in Military Handbook DOD-HDBK-263
- Proven effective in relative humidities below 15%
- Used in highly sensitive electronic and EDP operations
- Proven effective in eliminating EDP field service problems
- Specified by many industrial users
- Effective in all office environments where electronic equipment is located

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THESE ARE SOME OF THE TYPICAL PROBLEMS CAUSED BY STATIC...

- The attraction of dirt, dust and bacteria to all environmental surfaces, as well as to products and product packages.
- Damage or destruction of sensitive electronic components and subassemblies during manufacture, testing, packaging, shipping or receiving.
- Data processing equipment memory loss, pre-triggering, changes in function, data errors, paper jams and other "glitches."
- Removes residues which can contaminate electronic components and/or inhibit conductivity.
- Jamming or slipping of paper, plastics or other materials during printing, packaging or converting.
- Ignition of combustible vapors, dust or solvents, causing fire or explosion.
- Irregularities caused by static in quality printing, heat sealing, silk screening, lamination and other special applications.
- Work benches and production surfaces in electronic manufacturing and repair facilities
 will triboelectric charge electronic components, assemblies, or their handling containers
 in contact and separation with a surface thereby creating a discharge.



1960 E. Devon Ave, Elk Grove Village, IL 60007 USA 1-800-782-8420 • (847) 981-9212 • fax (847) 981-9278 info@aclstaticide.com • www.aclstaticide.com ISO 9001:2000 Registered

Ph: 800-537-0351 Web: <u>www.all-spec.com</u> Fx: 800-379-9903 Email: sales@all-spec.com

| GENERAL PURPOSE STATICIDE® | REGULAR HEAVY DUTY STATICIDE® | STATICIDE® CONCENTRATE |
|---------------------------------------|------------------------------------|--|
| Gallons #2001 | Gallons #2002 | Gallons #3000G |
| Quarts #2003 (with sprayer) | Quarts #2005 (with sprayer) | Quarts #3000Q (with sprayer) |
| | | 50 Gallon Drum #3000D |

STATICIDE® CONCENTRATE

Staticide Concentrate is available to save freight, handling and storage costs while offering greater flexibility in dilution.
Staticide Concentrate can be diluted with tap water, Isopropyl Alcohol, Carbon Tetrachloride or Perchloroethylene, to meet various processing needs.

Concentrate is packaged in quart, gallon and 50 gallon drum containers.

Staticide Concentrate should be mixed with water or other solvents in the following concentrate solvent ratios to obtain these Staticide formulations:

Regular Heavy Duty Staticide 1:39

General Purpose Staticide 1:99

EXPLANATION OF "GENERAL PURPOSE" VERSUS "REGULAR HEAVY DUTY STATICIDE"

"General Purpose" - Light duty solution for low friction surfaces and clear high gloss materials. Used for all work surfaces, trays, tote bags, PC boards, plastics, dip tubes, components, storage bins, carriers, packaging, film and hard floors. Does not last as long as "Regular" Staticide. If material is non-porous, use "General Purpose."

"Regular" Heavy Duty - Long-lasting solution for high friction surfaces. Used for treating carpets, chairs, clothing, conveyor belts, totes and work surfaces with heavy use. If material is porous or absorbent, use "Regular" Heavy Duty.

CONSULTATION

ACL, Incorporated will provide reasonable phone consultation regarding application techniques and proper formulation compatible with the standards at no charge.

TOXICITY AND MATERIAL SAFETY

In ready to use form, Staticide is non-toxic by oral ingestion, inhalation or dermal application, and is not a primary skin or major eye irritant. Staticide is non-flammable, completely stable and will not deteriorate after long periods in storage.

All-Spec Industries Wilmington, NC



PERFORMANCE AND SPECIFICATIONS

When properly applied, Staticide® complies with or exceeds all electrostatic decay criteria established for antistatic performance as set forth by NFPA and MIL B-81705, when tested in accordance with Federal Test Standard 101B, Method 4046.

Staticide is a proprietary water-based formulation consisting of several quaternary compounds. The following specifications generally apply to Staticide in its ready-to-use form.

Antictatic

Classification

| Classification | Antistatic |
|---------------------------------------|---|
| Form | Liquid |
| Color | Very slight amber/clear |
| Approximate cloud point (°F) | 30°F |
| Approximate solidification point (°F) | +20°F |
| Solubility in water | Complete |
| Dilution compatibility | Water, hard or soft |
| | 8.3 |
| Specific Gravity 25°c/40°c | .98 |
| pH (approximate) | 7-8 |
| Odor | Slight floral |
| Taste | Slightly hittor |
| Irritation | None |
| Sensitivity | None |
| Toxicity | None |
| Surface tension reducing nower | Superior |
| Flammability | None |
| Application | Spray, dip. wipe, coat |
| Freeze-Thaw capability | Excellent, no adverse effects |
| Shelf Life | Indefinite |
| Temperature Stability | Withstands up to 30 minutes @ 250°F. |

SOLVENTS COMPATIBLE WITH STATICIDE CONCENTRATE

Tap Water
Isopropanol (Alcohol)
Freon*
Acetone
Dioxane
Perclene (Perchloroethylene)
Mineral Oil**
Stoddard Solvent**
Methyl Ethyl Ketone
Methyl Chloroform
Trichloroethane

- * Mix 1 part Staticide Concentrate with 1 part IPA then add to freon.
- ** Add to cloud point, then back off.

To avoid bubbling, add the concentrate to the solvent. Amount of Staticide Concentrate can be changed to obtain desired control.

DILUTE STATICIDE CONCENTRATE AS FOLLOWS TO MAKE STATICIDE READY TO USE PRODUCT:

General Purpose Staticide -

40 cc Staticide Concentrate per gallon of solvent

Regular Heavy Duty Staticide – 100 cc Staticide Concentrate per gallon of solvent

If further instructions are needed or should you have any questions, please contact ACL at 1-800-782-8420.



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3000



2005/2002



2003/2001

STATICIDE® TOPICAL ANTI STATS

PROVEN EFFECTIVE IN INDUSTRIAL, COMMERCIAL & INSTITUTIONAL FACILITIES

Staticide, an inexpensive, easy-to-use topical anti static solution, is a highly effective method for long-term static control. Our family of solutions are widely used in a broad range if industries, as well as in the office environment. Available in customized formulations to meet specific customer's needs, Staticide is easily applied on sensitive electronic equipment, walls, ceilings, floors, carpets, fixtures, work surfaces, tools and equipment, conveyor belts, clothing and other materials.

3000 - STATICIDE CONCENTRATE

CLOSEST THING YET TO "STATIC CONTROL INSURANCE."

Staticide is the key ingredient in many ACL anti static solutions. Diluted and mixed with water or various solvents*, it eliminates a host of static control problems — especially in the electronics, medical, textile and plastics industries. Staticide Concentrate is available to save freight, handling and storage costs while offering greater flexibility in dilution.

Staticide Concentrate can be mixed in the following concentrate to solvent* ratios to obtain these Staticide formulations:

- Heavy Duty Staticide 1 to 39 (1 part Staticide to 39 parts solvent)
- General Purpose Staticide 1 to 99 (1 part Staticide to 99 parts solvent)

Available in your choice of:

Product #3000Q - quart bottle Product #3000G - gallon bottle Product # 3000D - 50 gallon drum Staticide Concentrate can be diluted with..

Tap water

Deionized water

Isopropyl Alcohol

Product #3000 MC-Staticide is available for film processing applications.

READY-TO-USE DILUTIONS

STATICIDE FAMILY FEATURES:

- Can be applied by spraying, wiping, dipping or by transfer roller coating, gravure coating or flexographic printing
- Meets MIL-B-81705 and NFPA-56A electrostatic decay criteria when tested in accordance with Federal Test Standard 101B, Method 4046
- Proven effective in relative humidity below 15%
- Non-staining, completely biodegradable and safe to use

HEAVY DUTY STATICIDE FOR POROUS SURFACES

IDEAL FOR ELIMINATING STATIC PROBLEMS SUCH AS:

- Static electricity discharge on carpeting and fabrics
- Jamming or slipping of materials during printing, packaging or converting
- Ignition of combustible vapors, dust or solvents, causing fire or explosion

One gallon covers approximately 2000 to 2500 square feet and will last from weeks to months, depending on the application.

Available in your choice of:

Product #2005 — quart bottle/12 quarts per case Product #2002 — gallon bottle/4 gallons per case

Product #2002-5 — 5 gallon pail Product # 2002-2 — 50 gallon drum

GENERAL PURPOSE STATICIDE FOR NON-POROUS SURFACES

SOLVES STATIC PROBLEMS SUCH AS:

- The attraction of dirt, dust and bacteria to all environmental surfaces, plastic products and product packaging
- Charge generation on surfaces of tote boxes and carriers used to process and store electronic components
- Damage or destruction of sensitive electronic equipment, components and sub-assemblies during their manufacture, shipping or receiving
- Data processing "glitches"...memory loss, data errors, paper jams

One gallon covers approximately 2000 to 2500 square feet depending on the application.

Available in your choice of:

Product #2003 — quart bottle/12 quarts per case Product #2001 — gallon bottle/4 gallons per case Product #2001-5 — 5 gallon pail Product # 2001-2 — 50 qallon drum

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