



CONNECTICUT CLEAN ROOM CORPORATION

www.ctcleanroom.com



ENVIROSAFE SOLUTIONS INTERNATIONAL, INC.

"TARGETED TOWARDS A SAFER ENVIRONMENT"



CR-2

**A USER AND ENVIRONMENTALLY SAFE,
LOW PARTICULATE CLEANER**

CR-2 is a "State of the Art" surfactant that was specially formulated to meet the critical cleaning needs of today's advanced technologies.

CR-2 is a replacement for some of the harmful solvents used in maintenance cleaning as well as process cleaning.

Test results have shown CR-2 to pass all mobile ion specifications for class 100 cleanrooms. It is customary to dilute CR-2 with de-ionized water.

MOBILE ION SPECIFICATIONS

Below are the mobile ion specifications per the product CR-2. The quantitative results are calculated as parts per million relative to the weight of the sample used, for particles 0.3 microns and smaller. Various dilution scenarios are listed as it is customary to dilute CR-2 (with DI water). The "Class 100 Specs" are listed for comparison purposes only.

| Particulate | Concentrate | 1 to 20 Dilution | 1 to 40 Dilution | Class 100 Specs* |
|-------------------------------|-------------|------------------|------------------|------------------|
| Na | >2.30 ppm | >0.115 ppm | >0.058 ppm | ≥0.500 ppm |
| K | >4.60 ppm | >0.230 ppm | >0.115 ppm | ≥0.300 ppm |
| Mg | >0.02 ppm | >0.001 ppm | >0.001 ppm | ≥0.100 ppm |
| Ca | >0.30 ppm | >0.002 ppm | >0.001 ppm | ≥0.100 ppm |
| Cl- | >0.10 ppm | >0.005 ppm | >0.003 ppm | ≥0.200 ppm |
| PO ₄ ⁻³ | >0.50 ppm | >0.025 ppm | >0.012 ppm | ≥0.500 ppm |
| SO ₄ ⁻² | >0.70 ppm | >0.035 ppm | >0.018 ppm | ≥0.000 ppm |
| Residue | >1.63 ppm | >0.082 ppm | >0.041 ppm | ≥5.000 ppm |

*From Motorola Chem Spec 11
ATD00901W, Issue M

PRODUCT APPLICATIONS/DILUTIONS

CLEANROOMS

- General Housekeeping
- Ceilings, Walls, Floors

Dilution ratio of 1:20 (CR-2:DI water).
Usage is the same as IPA/DI cleaning procedures.

CLEANROOMS

- Pre-entry 3-phase wipe downs prior to entering the cleanroom (including):
 - Equipment
 - Tools
 - Work Benches
 - Gowning Rooms

Dilution ratios should increase as one moves along the 3-phase wipe down process:

| Phase | Dilution Range |
|--------------|----------------|
| Gross | 1:1 - 1:10 |
| Intermediate | 1:10 - 1:20 |
| Precision | - 1:20 |

CLEANROOMS

- Tacky Mat Adhesive

Depending on severity, dilution ratios can range from 1:1 to 1:20.

ULTRASONIC CLEANING

- Circuit Boards

Dilution 1:20@60 degrees C.

ULTRASONIC CLEANING

- Precision Valves
- Precision Components
- Metal Cleaning, Tools, etc.

Dilution ratio range of 1:10 to 1:20. Based on application, temperatures may vary.

- A de-ionized water rise is sometimes useful especially when using low dilution ratios.
- For best results temperature should not exceed 60 degree C.