



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Mr. Rich Pratt  
Director of Marketing for,  
PMX Industries, Inc.  
5300 Willow Creek Drive  
Cedar Rapids, IA 52404

SEP - 1 2011

Subject: MicroGuard II  
EPA Registration Number 85290-2  
Your Amendment Dated May 23<sup>rd</sup>, 2011  
EPA Received Date June 3<sup>rd</sup>, 2011

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, FIFRA, as amended, to update the product labeling to comply with the wording negotiated between the Copper Development Association(CDA) and EPA, and to add several alloys, is acceptable subject to the comments listed below:

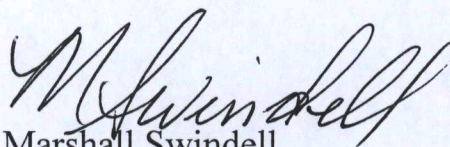
- 1) The fabricator cannot make claims about the basic copper alloy product or ingredient or Fabricated article (doorknob, handrail, etc.) that conflict with statements required pursuant to FIFRA on either the basic copper alloy product or any fabricated product label. For example, the accepted master label for the basic copper alloy as well as the label for the fabricated product that is included within the master label state "Normal tarnishing or wear of the surface will not impair antibacterial effectiveness." Additionally, in support of your application for registration of the basic copper alloy products, you submitte data supporting your position that tarnish has be beneficial impact on product efficacy against target microorganisms. Hence, the warranty statement, for example, on either the basic copper alloy product or any fabricated product cannot make a non-tarnish claim as that would conflict with the above required label statement.

- 2) The EPA Establishment Number that appears on the labeling for the alloy product labeling and/or the labeling for the fabricated end-use article to being sold or distributed must be that of the establishment where the particular product it is being produced and labeled. For the alloy product, it would be the establishment where the alloy product is produced and labeled. For the fabricated end-use article, it would be the establishment where the fabricated end-use article is produced and labeled. It is the responsibility of the owner of the establishment where the final production takes place to report production, and to maintain books and records under FIFRA Sections 7 and 8 and 40 CFR 167 and 169.
  
- 3) The labels attached to the copper alloy and the end-use fabricated products must contain the name and address of the producer, registrant, or person for whom produced in accordance with 40 CFR 156.10 (c).

A stamped copy of the labeling is enclosed for your records.

If you have questions concerning this letter, please contact Karen M. Leavy at (703)-308-6237.

Sincerely,



Marshall Swindell  
Product Manager 33  
Regulatory Management Branch I  
Antimicrobial Division(7510P)

# MicroGuard II AND ASSOCIATED FABRICATED PRODUCTS MASTER LABEL

The Master Label consists of the label that will accompany the MicroGuard II Antimicrobial Alloys and a label that will accompany each product fabricated using a registered MicroGuard II alloy.

## [Alloy Label – Front Panel]

# MicroGuard II AND ASSOCIATED FABRICATED PRODUCTS

**Active Ingredient:**

Copper	91.3%
Other	8.7%
<b>Total</b>	<b>100%</b>

EPA Registration No. 85290-2  
EPA Establishment No. 85290-XX

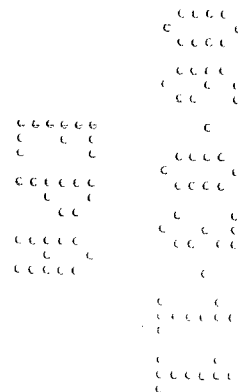
Made in the United States by:  
PMX Industries, Inc.  
5300 Willow Creek Drive SW, Cedar Rapids, IA 52404

Net Weight: XXX lbs XXX ounces of MicroGuard II

**ACCEPTED  
with COMMENTS  
EPA Letter Dated:**

SEP - 1 2011

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 85290-2



**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MicroGuard II Antimicrobial Copper Alloys**

These alloys are only intended for the manufacture and fabrication of touch surface components for use in hospitals, healthcare facilities, and various public, commercial, and residential buildings. [The claims listed on the attached fabricated product label may be made in connection with the marketing and sale of MicroGuard II Antimicrobial Copper Alloys and fabricated products made from MicroGuard II Antimicrobial Copper Alloys under EPA Registration Number 85290-2.

A list of components that may be fabricated out of MicroGuard II Antimicrobial Copper Alloys is specified below. MicroGuard II Antimicrobial Copper Alloys are not approved for direct food contact or food packaging uses.

**Touch Surface Components**

***Healthcare Facilities***

- Bedrails, footboards
- Over-bed tables
- Bed-side tables in hospitals, extended care facilities, senior housing etc. (knobs, pulls, handles; surfaces)
- Handrails, (corridor/hallways) ( Senior housing), automatic door push plates
- Stair rails, handrails, tubular railing, and supports, rail fittings, elbows and brackets
- Bedrails, assistance rails,
- Toilet safety rails
- Carts

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SEP - 1 2011

Hospital carts (table surfaces, handles, legs)  
Computer carts  
Record carts  
Phlebotomy carts

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 85290-2

Other Carts (tables/surfaces, shelving, railings, handles, pulls)

- Equipment carts (horizontal surfaces, frames, handles)
- Door push plates, kick plates, mop plates, stretcher plates
- Sinks: spigots, drains, sinks themselves
- Faucet: handles, spigot, drain control lever
- Water fountains: bubbler head, drain strainer, handle
- Alcohol sanitizer dispenser, handle
- Paper towel holders, facial tissue holders, toilet paper holders
- Air hand dryer, controls and push buttons on air hand dryers
- Hydrotherapy tanks (whirlpool tanks): shells, covers, headrests, drain fittings (outer surfaces without water contact)
- Door handles, doorknobs (outer touch surfaces)
- Grab bars in bathrooms showers and bathtubs
- Panic bars on emergency room doors

- Towel bars
- Showerheads
- Countertops and tabletops (non-food use only)
- Hinges, locks, latches, and trim
- Door stops, door pulls, and protector guards
- Toilet and urinal hardware, levers, push buttons
- Toilet seat inlay for lifting of seat
- Closures
- Vertical locking arms
- Vertical cover guards
- Protection bars
- Light switches, switch plates
- Visitor chairs: armrests, metal frames
- Thermostat covers, control knobs and wheels
- Telephone handsets and surfaces ( housings), keypad
- Kitchen surfaces (non-food contact only): table tops, counter tops, handles (microwave, refrigerator, stove), cabinet doors, cabinet hinges, pulls, backsplash, hoods, control knobs (appliances, fans)
- Floor tiles
- Ceiling tiles (non-porous)
- Wall tiles
- Instrument handles
  - Medical equipment knobs, pulls and handles for:
    - Drug delivery systems
    - Monitoring systems
    - Hospital beds
    - Office equipment
    - Operating room equipment
    - Stands and fixtures
  - Types of knobs: *e.g.*, Prong, fluted, knurled, push/pull, T-handle, tapered, and ball knobs
- Intravenous (IV) poles, bases, hangers, clips
- Trays (instruments, non-food contact)
- Pans (bed)
- Walkers, wheelchair handles, and tubular components
- Computer keyboards: keys, housings, computer mouse surfaces
- Exercise and rehabilitation equipment, handles, bars
- Physical therapy equipment: physical therapy tables, treatment chairs and portable taping tables
- Chairs (shower chairs, patient chairs, visitor chairs): rails, backs, legs, seats
- Lighting products: X-ray illuminators, operating rooms, patient examination rooms, surgical suites, and reading lamps for hospital rooms and assisted living facilities etc. Components can include bases, arms, housings, handles, hinges)
- Headwall systems: the unit themselves, outlet covers, knobs and dials, lighting units (lamp housings and adjustable arms), CRT monitors with rotating knobs and levers and adjustments. Baskets, monitor housings, knobs, baskets, tables, IV poles

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- Critical care cart: Table top, drawer, drawer pull, lock, copper wire baskets for storage of equipment and charts.
- Bedside lavatory: sink, faucet, handles, drawer pulls, toilet seat, toilet seat cover, toilet handle, door and cabinet facings, counter tops
- Medical records: Chart holders, clipboards, filing systems
- Storage Shelving: wire shelving etc. for medical supplies
- Grab handles on privacy curtains
- Lids of laundry hampers, trash canisters, and other containers
- Bedside pitchers
- Closet rods and hangers
- Television controls: knobs, buttons, remote
- Monitor (television, computer, etc.) housing
- Cup Holder
- Toothbrush holder
- Soap holder
- Magazine rack
- Signage
- Coat rack and hooks
- Shower curtain rings
- Radiator cover
- Bracelets
- Pens
- Badge clips
- Name tags
- Patient gown snaps
- Window sills, pulls and locks
- Electrical wallplates

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***Community Facilities (including various public and commercial buildings)***

- Shopping cart handles, child seats, handrails
- Cash registers: housing, keypads
- ATM machines: keys, housing
- Gym/Health club lockers, locker handles, locker shelving, trainers' tables,
- Ice and water dispensers (outer surfaces without water contact)
- Elevator: handrail, control panel, buttons, interior walls, floor tiles, exterior call button plate
- Paper towel dispensers. Housing itself, (turn) handle, (push) handle
- Soap holder
- Soap dispenser (wall mounted): push bar and dispenser itself
- Soap dispenser (sitting on counter): dispenser housing itself, push mechanism
- Toilet paper dispenser (housing)
- Windows (crank), Locking mechanism, pull handles
- Window treatments (cord pulls), Venetian blinds (wands, cord pulls)
- Jalousie Windows (crank)
- Casement (cranks, levers, hinges)
- Single and double-hung windows (locks and pulls)
- Light switches, switch plates









MicroGuard II  
Fabricated Product Label

FRONT

[This (touch surface) (product)] made from  
**MicroGuard II**  
 Active Ingredient:  
 Copper .....91.3%  
 Other..... 8.7%  
 [Total 100.0%]  
 See [Back/Side Panel][Insert] for Directions for Use  
 Net Weight: XXX lbs XXX ounces of  
 MicroGuard II

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BACK

MicroGuard II

Laboratory testing has shown that when cleaned regularly this surface:

- Continuously reduces bacteria\* contamination, achieving 99.9% reduction within 2 hours of exposure.
- Kills greater than 99.9% of Gram-negative and Gram-positive bacteria\* within 2 hours of exposure.
- Delivers continuous and ongoing antibacterial\* action, remaining effective in killing greater than 99.9% of bacteria\* within 2 hours.
- Kills greater than 99.9% of bacteria\* within two hours and continues to kill 99% of bacteria\* even after repeated contaminations.
- Helps inhibit the buildup and growth of bacteria\* within 2 hours of exposure between routine cleaning and sanitizing steps.
- [This product/component name] is made (out of)(from) a (copper)(touch) surface that continuously kills bacteria left behind [by dirty hands][on the surface] killing more than 99.9% of bacteria within 2 hours.

\* *Staphylococcus aureus*, *Enterobacter aerogenes*, Methicillin-Resistant *Staphylococcus aureus* (MRSA), *Escherichia coli* O157:H7, *Pseudomonas aeruginosa* and, Vancomycin – Resistant *Enterococcus faecalis* (VRE).

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

*Proper Care and Use.* Clean and sanitize according to standard practice. Healthcare facilities must maintain the product in accordance with infection control guidelines. The use of this surface is a supplement to and not a substitute for standard infection control practices; users must continue to follow all current infection control practices, including those practices related to cleaning and disinfection of environmental surfaces. This surface has been shown to reduce microbial contamination, but does not necessarily prevent cross contamination.

This surface may be subject to recontamination and the level of active bacteria at any time will depend on the frequency and timing of recontamination and cleanliness of the surface (among other factors). In order to have proper antimicrobial effect, this product must be cleaned and maintained according to the directions for use.

Do not wax, paint, lacquer, varnish, or otherwise coat this product.

Routine cleaning to remove dirt and filth is necessary for good sanitation and to assure the effective antibacterial performance of this surface. Cleaning agents typically used for traditional hard, non-porous touch surfaces are permissible. The appropriate cleaning agent depends on the type of soiling and the measure of sanitization required. Normal tarnishing or wear of this surface will not impair antibacterial effectiveness.

Not approved for direct food contact or food packaging uses.

[Items exposed to outdoor environmental conditions are not representative of indoor laboratory test conditions, and, therefore, may impart reduced efficacy if not cleaned when visibly soiled.]

STORAGE AND DISPOSAL

Dispose of by recycling or put in trash.

WARRANTY STATEMENT

If used as intended, this product is wear-resistant and the durable antibacterial properties will remain effective for as long as the product remains in place and is used as directed.

EPA Reg. No. 85290-2 EPA Est. No. [Product Manufacturer Name and Address]-85290-XX  
Manufactured by: [Product Manufacturer Company Name and Address]  
PMX Industries, Inc., 5300 Willow Creek Drive SW, Cedar Rapids, IA 52404