

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



OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES  
Antimicrobial Division

July 6, 2006

DP BARCODE: # 330457

MRID : #468473-01

SUBJECT: Full Metal Jacket  
( Also identified as LM 1000 AF Part A Copper Powder and Part B Product Binder)  
(Name of Product)

REG. NO. OR FILE SYMBOL: 82874-R

DOCUMENT TYPE: Product Chemistry Review

Manufacturing-use  OR End-use Product

INGREDIENTS (PC Codes): 022501

CAS Number: 7440-50-8

TEST LAB: LumiOre, Inc. and Case Consulting Laboratories, Inc.

SUBMITTER: LuminOre Industrial and Marine Coatings, Inc.

GUIDELINE: 830.1550, 830.1600, 830.1650, 830.1670, 830.1750, 830.1900  
830.6303, 830.6314, 830.6315, 830.6320, 830.7000, 830.7100, 830.7300

COMMODITIES: not applicable

REVIEWER: Alex Traska

ORGANIZATION: AD

APPROVER: Karen P. Hicks

APPROVED DATE:

7/12/06

COMMENT:

**TO:** Marshall Swindell  
PM Team # 33

**FROM:** Alex Traska, Chemist  
Product Science Branch, CT Team  
Antimicrobials Division (7510C)

*AT 7/6/06*

**THRU:** Karen P. Hicks, CT Team Leader  
Product Science Branch  
Antimicrobials Division (7510C)

*K.P. Hicks*

**THRU:** Michele E. Wingfield, Chief  
Product Science Branch  
Antimicrobials Division (7510C)

**APPLICANT:**

**Action code : A54 new product, non-fast track**

**Due out date : 4 Aug 2006**

**Product Formulation (Part A Copper Powder)**

Active Ingredient(s):	% by wt.
Copper.....	99.75

**Product Formulation (Full Metal Jacket)**

Active Ingredient(s):	% by wt.
Copper.....	55

**BACKGROUND:**

This new product registration, covering the subject three part antifouling coating, was made by the registrant, LumiOre Industrial and Marine Coatings, Inc.

The registrant, in this new product registration, has requested approval to register a two (2) part system consisting of a metallic copper powder (part A) and a resin mixture (part B). These when combined and stirred with methyl ethyl ketone peroxide would result in a ready to use antifouling coating. This final antifouling coating has been given the product name, **Full Metal Jacket**. The part A, copper powder component has a separate label identifying the part A

component as **LM 1000 AF Part A Copper Powder**. The part B, resin mixture component has a separate label identifying the resin mixture component as **LM 1000 AF Part B Product Binder**.

The following documents were submitted and examined in the chemistry review of this submission: registrant's transmittal document dated June 8, 2005, proposed Basic CSF for **Full Metal Jacket** dated 5/20/05, product label for LM 1000 AF Part A Copper Powder and LM 1000 AF Part B Product Binder both dated 10/03/05, product chemistry data for Test Guideline Series 830 Group A and B under MRID # 468473-01 dated May 18, 2005 and December 27, 2005.

#### **FINDINGS:**

1. The product name must be consistently used both on the label and Confidential Statement of Formula (CSF) and in all documents submitted in support of this registration. The product name **Full Metal Jacket** given in the Basic CSF did not agree with the product labels or supporting documents.

2. The certified limits for the active and inert ingredients given in the proposed Basic CSF for **Full Metal Jacket** dated 5/20/05 were incorrectly stated in item #14 of the CSF. The higher value is considered the upper control limit while lower value the lower limit. The registrant has these values reversed.

3. The certified limits given in item #14 of the CSF must be shown as percentage values e.g. UCL 60.0 and LCL 50.0.

4. The active ingredient source utilized, metallic copper powder (part A), has been previously registered under EPA Reg. # 9630-35. However, the product binder (part B) which constitutes the inert ingredient portion of the **Full Metal Jacket** formulation was not disclosed. Registrant must provide a full percentage formula disclosure of each ingredient present in the product binder mixture. Registrant must also provide the CAS Registration Number of each ingredient present in the part B Product Binder.

5. Registrant must correct the values given in item # 13b of the CSF. The 13b column is a percent by weight column which must total to 100%.

6. Item #17, total weight, was not completed as required. Supplier name and address for MEKP should be provided in the Basic CSF.

7. The requirements of PR Notice 91-2 were not satisfied. No product label for the **Full Metal Jacket** formula was provided with this registration package to verify the nominal concentration of the active ingredient, copper.

8. The product chemistry package provided under MRID # 468473-01 was acceptable and complied with necessary GLP requirements.

**CONCLUSIONS:**

This new product registration, which requested approval to register the new end-use antifouling coating **Full Metal Jacket**, is not accepted.

Registrant must address items #1 through #7 noted in the Findings.