

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



Office of Pesticide Programs

Antimicrobials Division (AD)

October 13, 2011

DP BARCODE: See DP# 390829

MRID: 484809-02, 484808-02, 484453-04, 484453-03,
484453-02, 484453-01

SUBJECT: Creosote Oil

REG. NO. OR FILE SYMBOL: 82024-E

DOCUMENT TYPE: Product Chemistry Review

Manufacturing-use OR End-use Product

Active ingredients (PC Codes) CAS Number:
Coal Tar Creosote (025004) 8001-58-9

TEST LAB:

SUBMITTER: Lone Star Specialty Products, LLC

GUIDELINE: 830 Groups A & B

COMMODITIES: Formulation

REVIEWER: Juan F. Negrón

ORGANIZATION: AD

APPROVER: Karen P. Hicks

APPROVED DATE: 10/13/11

COMMENT:

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MEMORANDUM

Subject: Product Chemistry Review for EPA Reg # 82024-E.
Product name: Creosote Oil
See DP# 390829

From: Juan F. Negrón, Chemist
Product Science Branch, CT Team
Antimicrobials Division (7510P)

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

To: Jacqueline Campbell-McFarlane / Juan F. Negrón
PM Team 34
Antimicrobials Division (7510P)

APPLICANT: Lone Star Specialty Products, LLC
Action code: A550
Due date: 11/27/11

Product Formulation from label

Active Ingredients

	% by wt.
Coal Tar Creosote	98.5

BACKGROUND:

On behalf of the registrant, Lone Star Specialty Products, LLC, the consultant, Law offices of Walter G. Talarek, P.C., has submitted a new registration for an integrated end-use product, Creosote-Solution. The product is to be used for pressure treatment of wood. The product is classified as fungicide, & insecticide. The product chemistry reviewer has reviewed the following documents:

- A letter, dated 04/04/11.
- Transmittal document, dated 04/04/11.
- Certification with respect to citation of data, dated 04/04/11.
- Data matrix, dated 04/04/11.
- Draft label, pin punched on 04/07/11.
- Confidential Statements of Formula (CSFs), dated 04/04/11, & 10/13/11, for the basic formulation.
- MRID #s [484809-02, 484808-02, 484453-04, 484453-03, 484453-02, 484453-01, 44141204, 441412-05, 441412-06, 415978-01, 438049-01, 485066-01, 486224-01, 460270-01, 453556-02, & 453562-02].

FINDINGS:

1. The CSF, dated 04/04/11, for the basic formulation is obsolete.
2. The CSF, dated 10/13/11, for the basic formulation is revised.
3. The CSF and the label have the same nominal concentration.
4. The OPPTS 830 Groups A & B have been met.
5. The OPPTS 830.6317 Storage Stability guideline shows that after one year of storage at room temperature, protected from light the assays are within the EPA Standard Certified Limits. The assays were conducted at initial and 12 months.
6. The OPPTS 830.6320 Corrosion Characteristics guideline shows that after one year of storage at room temperature, protected from light the results reveals no significant weight loss was noted for metal coupons immersed in the creosote composite sample. Creosote is routinely shipped and stored in metal containers. No sign of deterioration or leak.

CONCLUSIONS:

The CSF, dated 10/13/11, for the basic formulation is acceptable. The product chemistry package is acceptable.

PRODUCT CHEMISTRY REVIEW

I. CONFIDENTIAL STATEMENT OF FORMULA

a. Type of formulation and source registration:

- Non-integrated formulation system
- Are all TGAs used registered? Yes No
- Integrated formulation system
- If "ME-TOO," specify EPA Reg. No. of existing product: _____

b. Clearance of inerts for non-food:

Yes No

Note: This product is not intended for food use.

c. Physical state of product:

Liquid

d. The chemical IDs and analytical information (including that for the TGAs), density, pH, and flammability are consistent with that given in 830 Series, Group B.

Yes No

e. The NCs and CLs are acceptable.

Yes No

f. Active ingredient

<u>NC</u> (%)	<u>LCL</u> (%)	<u>UCL</u> (%)
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Coal Tar Creosote

98.5	95.5	102
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g. For products produced by an integrated formulation system:

- Do all impurities of toxicological significance have a UCL?
Yes No Not applicable
- Have all impurities of $\geq 0.1\%$ in the product been identified?
Yes No Not applicable

II PRODUCT LABEL

a. The active ingredient statement (chemical IDs and NC) is consistent with the CONFIDENTIAL STATEMENT OF FORMULA. Yes No

b. The formula contains one of the following:

- 10% or more of a petroleum distillate: Yes No
- 1.0% or more of methyl alcohol: Yes No
- sodium nitrite at any level: Yes No
- a toxic List 1 inert at any level: Yes No
- arsenic in any form: Yes No

c. If "yes" to any of the above, does the inert ingredients statement contain a footnote indicating this? Yes No Not applicable

d. Appropriate warning statement(s) regarding flammability or explosive characteristics of the product are listed on the label.

Yes No Not applicable

e. The storage and disposal instructions for the pesticide container are in compliance with PR Notice 84-1 for household use products or PR Notice 83-3 for all other uses.

Yes No

f. The product requires an expiration date at which time the NC falls below the LCL (based on the 1-year storage stability data or other information).

Yes No

Table A:
Product Chemistry (Series 830, Group A)

Data Requirements	Information submitted	MRID No.
830.1550 Product Identity ¹	A	484453-01
830.1600 Description of Materials	A	
830.1620 Production Process ²	A	484453-01
830.1650 Formulation Process ³	A (See page 6 of MRID #484453-01)	484453-01
830.1670 Formation of Impurities ⁴	A	484453-01
830.1700 Preliminary Analysis ⁵	A	484453-02 484453-04
830.1750 Certified Limits ⁶	A (see findings)	484453-03
830.1800 Enforcement Analytical Method ⁷	A GC/MS & HPLC →	44141201
	GC/FID →	44141203
	GC/MS & HPLC →	44141204
830.1900 Submittal of Samples		

Explanation: A=acceptable; N=not acceptable (i.e., item was submitted but is not acceptable); NA=technically not applicable (i.e., not required); G=data gap (i.e., item was not submitted but is required); U=requires upgrading (i.e., item is unacceptable but upgradeable); W=waived; E=EPA estimate.

¹ See Confidential Appendix A for additional information.

² For MP/EP products produced by an integrated formulation system.

³ For products from a TGAI or MP.

⁴ May be waived unless actual/possible impurities are of toxicological concern.

⁵ Five batch analysis required for products produced by an integrated formulation system.

⁶ If different from standard CLs recommended in 40 CFR 158.175, this should be discussed in Confidential Appendix A.

⁷ Abbreviate method used as follows: gas chromatography (GC), infrared (IR), ultraviolet absorption (UV), nuclear magnetic resonance (NMR), etc.

Table B:
Physical and Chemical Characteristics (Series 830, Group B)

Physical/Chemical Properties*	Information submitted	Value or Qualitative Description	MRID No.
830.6302 Color	A	Dark brown to black.	484808-02
830.6303 Physical State	A	Liquid	484453-01 484808-02
830.6304 Odor	A	Strong aromatic, petroleum-like odor.	
830.6313 Stability to Normal and Elevated Temperatures, Metals, and Metal Ions	A	The chemical is stable @ normal temperatures & pressure.	484808-02
830.6314 Oxidation/Reduction; Chemical Incompatibility	A	NA. Product does not contain an oxidizing or reducing agent.	
830.6315 Flammability/Flame Extension	A	Product has a flash point of >200°F (>93.3°C).	484808-02
830.6316 Explodability	A	Product is not explosive.	484808-02
830.6317 Storage Stability	A	Meet the EPA Standard Certified Limits.	45355602 <u>45356201</u>
830.6319 Miscibility ¹	A	NA. The product is not an emulsifiable liquid that will be diluted with petroleum solvents.	
830.6320 Corrosion Characteristics	A	No significant change or deterioration.	45355602 <u>45356201</u>
830.6321 Dielectric Breakdown Voltage	A	NA. The product will not be used around electrical equipment.	
830.7000 pH ²	A	pH range of 7 to 8	484808-02
830.7050 UV/Visible Absorption	NR	Not required for end-use product.	
830.7100 Viscosity	A	14.60 mm/s	
830.7200 Melting Point/Melting Range	A	NA. Product is a liquid.	484808-02
830.7220 Boiling Point/Boiling Range	A	>180°C (>356°F)	484808-02
830.7300 Density/Relative Density/Bulk Density	A	8.9323 lbs/gal. See CSF.	
830.7370 Dissociation Constants in Water	A	NA. Product does not contain an acid or base functionality or an alcoholic functionality.	484808-02
830.7550/830.7560/830.7570 Partition Coefficient	A	Log P = 3.311 (See RED)	484808-02

Physical/Chemical Properties*	Information submitted	Value or Qualitative Description	MRID No.
830.7840/830.7860 Water Solubility	A	306 ug/ml from RED & 313 ug/ml from open literature.	484808-02
830.7950 Vapor Pressure	A	8.6 mm Hg @ 24.4 to 24.5 °C (See RED)	484808-02

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* Provide brief description, e.g., color – yellow or property value, e.g., density 1.25 g/cc. Unless otherwise indicated, the property should be at 25°C.

¹If product is an emulsifiable liquid

²If product is dispersible with water