

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

NAME: CPT ANTHRAQUINONE DRY

SYNONYMS: AQ; 9-10 Anthraquinone; 9,10 Dioxoanthracene;
9-10 Anthracenedione; Anthradione

Molecular formula for Anthraquinone: $C_{14}H_8O_2$

CAS No: 84-65-1

EINECS No: 201-549-0

Company Information: CPT Pulp and Paper, LLC
P.O. Box 2275
102 Old Mill Road
Cartersville, Georgia 30120-1688
Telephone: 770-606-8166

EMERGENCY: CHEMTREC, 800-424-9300 (24 Hours every day)

2. INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>CAS #</u>	<u>EXPOSURE LIMITS</u>	<u>% BY WT</u>
Anthraquinone	84-65-1	OSHA PEL: Not Listed ACGIH TLV-TWA: Not Listed	ca 99

3. HAZARDS IDENTIFICATION

Appearance: tan-colored odorless powder.

Hazard Symbol: Xi

WARNING! Irritating to eyes, respiratory system and skin [R 36/37/38].
May cause allergic skin reaction. Causes digestive and respiratory tract irritation.

When using do not eat or drink. [S 20].

In case of accident or if you feel unwell, seek medical advice
immediately (show the label where possible). [S26].

Wash thoroughly after handling.

Wash hands before eating.

Remove contaminated clothing and wash before reuse.

Avoid breathing dust. Use only with adequate ventilation.

Routes of Entry: Inhalation, Ingestion.

POTENTIAL HEALTH EFFECTS:

Target Organs: Liver, kidneys, bladder.

Eye: Causes eye irritation.

Skin: Causes skin irritation. Skin sensitization has been reported.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: Causes respiratory tract irritation.

Chronic: Liver, kidney, bladder effects when ingested at high dose rates. Effects may be delayed.

Carcinogenicity: NTP.....: Not listed.
IARC.....: Not listed.
ACGIH.....: Not listed.
OSHA.....: Not regulated as a carcinogen.

Medical Conditions Aggravated by Exposure: None are known.

4. FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash skin with soap and water. Wash clothing before reuse. Seek medical attention if irritation develops or persists.

Ingestion: Wash out mouth with water if victim is conscious and alert, give 2-4 cupfuls of milk or water and induce vomiting. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, get medical aid.

Notes to Physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

General Information: Anthraquinone is an organic compound which will burn. Large quantities of dust suspended in air can present a dust explosion hazard. As in any fire, wear a self-contained breathing apparatus (NIOSH approved or equivalent), and full protective gear. During a fire, irritating and toxic gases may be generated by thermal decomposition and incomplete combustion.

Extinguishing Media: Any extinguishing media is suitable - use water, dry chemical, chemical foam, or CO₂.

Explosion Limits:

Lower: Not available.

Upper: Not available.

Flashpoint: 185°C (365°F)

Autoignition Temperature: 650°C (1,202°F)

General Hazard: As with any organic powder, high concentrations of dust in the air may lead to a dust explosion. Minimize airborne dust.

Fire Fighting Instructions: Limit water runoff if it is likely to contain this material.

Fire Fighting Equipment: No special equipment is required. Wash away any of this product which may contact the body, clothing, or equipment.

6. ACCIDENTAL RELEASE MEASURES

General: Use appropriate Personal Protective Equipment (PPE). Contain the spilled material and clean up spills immediately. Prevent airborne dust and scattering by moistening with water.

Small Spill: Carefully shovel up or sweep up spilled material and place in suitable container for disposal.

Large Spill: Try to prevent material from entering storm sewers or ditches leading to natural waterways. Dispose of large amounts of this material in an approved landfill.

7. HANDLING AND STORAGE

Storage Temperature and Pressure: Ambient. Store in a cool, dry place. Keep container closed when not in use.

General: Avoid contact with eyes, skin, and clothing. Minimize dust generation and accumulation. Avoid ingestion and inhalation. Use with adequate ventilation. Wash thoroughly after handling. Wash hands before eating.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below permissible dust exposure limits.

Respiratory Protection: Use a NIOSH-approved dust mask if excessive dust is present.

Skin Protection: Cover exposed skin areas and wear general-purpose gloves.

Eye Protection: Wear safety glasses. Use chemical goggles if excessive dust is present.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Appearance: Solid - tan to yellowish colored powder

Vapor Pressure: Approximately 1 mm Hg at 190°C

Specific Gravity: Approximately 1.44

Solubility in Water: Insoluble

pH: Not Available.

Boiling Point: 377°C

Freezing/Melting Point: 286°C

Vapor Density: Not Available

Evaporation Rate: Negligible.

Odor: None.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures. Avoid dust generation. Keep away from intense heat and ignition sources.

Incompatibility: Strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases from incomplete combustion, carbon dioxide.

Hazardous Polymerization: Does not occur.

11. TOXICOLOGICAL INFORMATION

For Anthraquinone, CAS# 84-65-1:

Inhalation, rat: LC50 = not determined, >1300 mg/m³/4 hours.

Oral, mouse: LD50 = not determined, >5 gm/kg.

Skin, rat: LD50 = not determined, >1 gm/kg.

Neurotoxicity: No information found.

Teratogenic: In OECD Guideline 421, Reproduction/Developmental Toxicity Screening Test (40 CFR 799.9355), 150 mg Anthraquinone/kg/day had no effect on parturition data, litter size, or pup survival to LD 4.

Reproductive: Mating, fertility, and fecundity indices for both treated males and females were unaffected by treatment with 2400 mg Anthraquinone/kg/day for 14 days.

Mutagenicity: Anthraquinone is not mutagenic in Salmonella typhimurium strains TA 100, TA 102, TA 1537, or TA 98, with or without exogenous metabolic activation (S9).

National Toxicology Program Technical Report 494 reports studies conducted on anthracene-derived anthraquinone (contaminated with mutagenic 9-nitroanthracene as a result of the manufacturing process - nitric acid oxidation of anthracene). **This product does not contain anthracene-derived anthraquinone.**

12. ECOLOGICAL INFORMATION

TOXICITY: No information found.

DISTRIBUTION: Substituted Anthraquinones are produced naturally by various plant species. Anthraquinone, itself, is produced by some fungi.

13. WASTE MANAGEMENT INFORMATION - DISPOSAL

Do not dump into sewers, on the ground, or into any body of water. If discarded, this product would not be a hazardous waste under US EPA guidelines in 40 CFR Parts 261.3. Chemical waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification; any disposal practice must be in compliance with local, state, and federal laws and regulations.

14. TRANSPORT INFORMATION

D.O.T. Shipping Name : Not regulated as a hazardous material.

IATA Shipping Name : Not regulated as a hazardous material.

IMO Shipping Name : Not regulated as a hazardous material.

RID/ADR Shipping Name : Not regulated as a hazardous material.

D.O.T. Hazard Class.....: None.

U.N./N.A. Number.....: None.

Product R.Q. (lbs).....: None.

Product Label.....: CPT Anthraquinone Dry

15. REGULATORY INFORMATION

TSCA: CAS# 84-65-1 is listed on the TSCA inventory.

Chemical Test Rules

Anthraquinone, CAS# 84-65-1 is subject to a test rule under TSCA section 4(a)(1)(B)

TSCA Significant New Use Rule

None of the chemicals in this material are subject to a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes CAS # 84-65-1: immediate.

Section 313: No chemicals in this product are reportable under Section 313.

Clean Air Act:

This product does not contain any hazardous air pollutants.

This product does not contain any Class 1 Ozone depleters.

This product does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

European Labeling in Accordance with EC Directives:

Hazard Designation: Xi Irritant

Risk Phrases: R 36/37/38 Irritating to eyes, respiratory system and skin.

WGK (German water hazard classification system)

CAS# 84-65-1: WGK1

Canada - DSL/NDSL

CAS# 84-65-1 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2A, D2B.

RCRA Status: See Section 13. Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing this product or derived from this product should be classified as a hazardous waste under 40 CFR 261.20-24.

16. OTHER INFORMATION

NFPA Rating (National Fire Protection Association):

Health - 2 (Materials which on intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.)

Fire - 0 (Materials that are nonflammable).

Reactivity - 0 (Materials which in themselves are normally stable even under fire exposure conditions, and which are nor reactive with water).

Special - NA

Reason for Issue..... : Format upgrade, inclusion of negative TSCA developmental/reproductive toxicity screening test results.

Prepared by..... : Jerry A. Cook.

Title..... : Technical Director.

Approval Date..... : March 2008.

Supersedes Date..... : 10/04/2003

MSDS Number..... : 821.

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