

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Revision Date: August 29, 2003

Product Name: Coloring Agent (Black Ink and Colors w/Black)
Product Number: 1 tube: 115-9XXX

DISTRIBUTOR: Circuit Technology Center, Inc.
45 Research Drive, Haverhill, MA 01832-1293
PHONE: 978-374-5000, FAX: 978-372-5700

Emergency Response 24-Hour Telephone: **CHEMTREC** United States: (800) 424-9300
International: (703) 527-3887 (collect)

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Section 2. COMPOSITION, INFORMATION OR INGREDIENTS

	OSHA PEL	C.A.S. Number
Pigment Black 7 Carbon Black in paste form.	3.5mg/M3	1333-36-4

The components of this product are not considered to be hazardous as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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Section 3. HAZARD IDENTIFICATION

Emergency Overview:

Potential Health Effects:

INHALATION: In poorly ventilated areas, vapors from the heated product may cause temporary dizziness, headache, nausea, vomiting and drowsiness.
EYES: Eye contact may cause irritation.
SKIN: Dermatitis may be aggravated by contact.
INGESTION: May cause local irritation of mouth, esophagus and stomach.

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Section 4. FIRST AID MEASURES

INHALATION: If vapors from the heated product are inhaled, remove affected person to fresh air, restore breathing, consult a physician.
EYE CONTACT: Immediately flush eyes with water for at least 15 minutes, consult a physician.
SKIN CONTACT: Wash exposed skin with soap and water and remove contaminated clothes.
INGESTION: If ingested, do not induce vomiting, consult a physician.

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Section 5. FIRE-FIGHTING MEASURES

Flash Point & Method: 230°F (C.O.C.)
Flammable Limits: LEL: 1.1 UEL: 6.0
Autoignition Temperature: NA
GENERAL HAZARD: Closed containers should be cooled with water using fog nozzles to minimize internal pressures and explosion risk. Can form dense fumes when burning, producing CO, CO₂ and other oxides.
FIRE FIGHTING INSTRUCTIONS: Fire fighting personnel should wear SCBA.
HAZARDOUS COMBUSTION PROD.: NA
FLAMMABLE PROPERTIES: OSHA Class III B Combustible liquid.
EXTINGUISHING MEDIA: Dry Chemical, Carbon dioxide, Foam.

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Section 6. ACCIDENTAL RELEASE MEASURES

LAND SPILL: Keep from sparks or open flames. Ventilate area. Avoid breathing of concentrated vapors. Use oil absorbents and sweep up with broom and shovel into proper disposal container.
NEUTRALIZING AGENT: NA

Section 7. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient
STORAGE PRESSURE: Atmospheric
GENERAL: Store in sealed containers away from excessive heat, open flame, sparks or strong oxidizing agents. Avoid contact and use adequate ventilation.

Section 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls:
(X) Local Exhaust ventilation is recommended.
() Mechanical ventilation recommended.
() Use explosion proof ventilation equipment.
() Do not use in confined spaces without mechanical ventilation equipment.
See section 2 for component exposure guidelines.

Personal Protection:
RESPIRATOR: Not required unless mist is generated while material is heated or handled, in which case a NIOSH approved organic vapor respirator with mist filter should be used.
HAND PROTECTION: (X) Protective Gloves Recommended (Impervious)
EYE PROTECTION: (Use one of the following)
(X) Face Shield (X) Safety Glasses (splash-proof)
OTHER RECOMMEND.: (Use all of the following)
(X) Apron (X) Long Sleeve shirt/pants to minimize exposure
NOTE 1: In accordance with good industrial hygiene, wash hand with soap and water after working with material

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Density..... 0.9562g/ml, 7.9718Lb/gal pH..... NA
Boiling Point..... >450°F % Volatile By Weight..... >2
Freezing Point..... NA % Solids..... NA
Vapor Density (Air = 1)..... >1 Evaporation Rate (Butyl Acetate = 1).. <1
Solubility in Water..... Insoluble Viscosity..... NA
Molecular Weight..... NA Physical State..... Liquid/Gel
Non-Exempt VOC (g/L)..... NA Odor.....
Oleo-resinous
Appearance: Amber color Vapor Pressure(mmHg)..... >0.1

Section 10. STABILITY AND REACTIVITY

GENERAL: Stable.
INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Avoid strong oxidizing agents.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: NA
HAZARDOUS POLYMERIZATION: Will not occur.

Section 11. TOXICOLOGICAL INFORMATION

RESULTS OF COMPONENT TOXICITY TEST PERFORMED: Information not available.
HUMAN EXPERIENCE: Information not available.

Section 12. ECOLOGICAL INFORMATION

FURTHER INFORMATION: Do not allow spills to enter sewers or storm drains. Contain spill immediately. Remove all sources of ignition and absorb with inert material such as sand or clay. Discharge to navigable waterways or shorelines resulting in a visible surface sheen are prohibited and reportable under Section 311 (b) (3) of the Federal Water Pollution Control Act. (See 40 CFR 110).

Section 13. DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 Classification:

Federal, State, and Local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

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Section 14. TRANSPORT INFORMATION

DOT, IATA, ICAO, and IMO Description:

Basic Description: NA
Proper Shipping Name: NA
Hazard Class: NA
Packaging Group: NA
UN Number: NA
Label Requirements: NA
Max. Shippable Qty.: NA
Packaging: NA
Reportable Quantity (RQ): NA
1996 NAERG Guide#: NA
Limitations: NA

Do not transfer to unmarked containers. Non-Regulated under D.O.T.

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Section 15. REGULATORY INFORMATION

UNITED STATES FEDERAL REGULATIONS:

MSDS complies with OSHA's Hazard Communication Rule, 29 CFR 1910.1200.

CERCLA/SUPERFUND, 40 CFR 117, 302:

--- None of the chemicals are Superfund hazards ---

SARA SUPERFUND AND REAUTHORIZATION ACT OF 1986 TITLE III Sections 302, 311, 312 and 313:

Section 302 - Extremely hazardous substances (40 CFR 355)

--- None of the chemicals are Section 302 hazards ---

Section 311/312 - Material Safety Data Sheet Requirements (40 CFR 370)

- (X) By our hazard evaluation, this product is non-hazardous
- () By our hazard evaluation, this product is hazardous. It should be reported under the following EPA hazard:
 - () Immediate (acute) health hazard
 - () Delayed (chronic) chronic health hazard
 - () Sudden release of pressure hazard
 - () Reactive Hazard

Section 313 - List of Toxic Chemicals (40 CFC 372)

This product contains the following chemicals (at levels of 1% or greater) which are found on the 313 list of Toxic Chemicals

<u>Toxic Chemical</u>	<u>C.A.S. Number</u>	<u>Weight %</u>
Pigment Black 7	NA	NA

TOXIC SUBSTANCE CONTROL ACT (TSCA): All substances are TSCA Listed.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA 40 CFR 261) Subpart C&D:

Refer to Section 11. for RCRA classification.

Material Safety Data Sheet

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15
(FORMERLY SECTION 307), 40 CFR 116 (FORMERLY SECTION 311)

This product contains the following chemicals which are listed:

CHEMICAL	C.A.S. Number	Weight %
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CLEAN AIR ACT: --- No Information ---

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:

This product contains the following ingredients which appear on the California proposition 65 list: CHEMI-

CAL	C.A.S. Number	Weight %
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INTERNATIONAL REGULATIONS:

CANADA WHIMS: NA

EUROPE EINECS NUMBERS: NA

CANADIAN SUBSTANCE INVENTORY:

One or more of the components of this product do not appear in the Canadian Substance Inventory.

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Section 16. OTHER INFORMATION

LABEL INFORMATION:

European risk and Safety Phrases: NA

European Symbols Needed: NA

Canadian WHIMS Symbols: NA

NFPA HAZARD RATING:

(1) Flammability (1) Health (0) Reactivity

REVISION DATES, SECTIONS, REVISED BY:

08-OCTOBER-98, J. FORBES

ABBREVIATIONS USED IN THIS DOCUMENT:

NE - Not Established, NA - Not Applicable/Not Available, NIF - No Information Found

REFERENCES:

Code of Federal Regulations (CFR)
The Sigma-Aldrich Library of Regulatory and Safety Data
Chemical Guide and OSHA Hazard Communication Standard
Various Federal, State & Local Regulations

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