

MATERIAL SAFETY DATA SHEET

200001073/F/USA - J-0003.000D  
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Print Date: 05/01/1993  
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: KODAK Brown Toner

Catalog Number(s):       146 4452 - 8 ounce(s)  
                          140 0928 - 1 gallon (U.S.)

Manufacturer/Supplier: EASTMAN KODAK COMPANY, Rochester, New York 14650

For Emergency Health, Safety & Environmental Information, call: 716-722-5151

For Other Information, call the Marketing and Distribution Center in Your Area.

Synonym(s):   KAN 354727; PCD 2679; J-0003.000

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight % - Component - (CAS Registry No.)

70-80	Water (007732-18-5)
15-20	Potassium sulfide (001312-73-8)
5-10	Sodium carbonate (000497-19-8)
< 1	Sodium hydroxide (001310-73-2)

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3. HAZARDS IDENTIFICATION

DANGER! CONTAINS: Potassium sulfide (001312-73-8)  
CAUSES EYE BURNS  
CONTACT WITH ACID LIBERATES FLAMMABLE AND POISONOUS GAS  
HARMFUL IF SWALLOWED  
VAPOR IRRITATING TO THE EYES AND RESPIRATORY TRACT  
CAUSES SKIN IRRITATION

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4. FIRST-AID MEASURES

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eyes: Immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.



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Ingestion: Induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

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5. FIRE FIGHTING MEASURES

Extinguishing Media: Use appropriate agent for adjacent fire.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products.

Hazardous Combustion Products: None (noncombustible). (see also Hazardous Decomposition Products section)

Unusual Fire and Explosion Hazards: None

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6. ACCIDENTAL RELEASE MEASURES

Flush to sewer with large amounts of water. Otherwise, absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

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7. HANDLING AND STORAGE

Personal Precautionary Measures: Do not get in eyes and avoid contact with skin and clothing. Use with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: No special precautionary measures should be needed under anticipated conditions of use.

Storage: Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section).

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

ACGIH Threshold Limit Value (TLV):

Sodium hydroxide: 2 mg/m<sup>3</sup> Ceiling

OSHA (USA) Permissible Exposure Limit (PEL):

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Sodium hydroxide: 2 mg/m3 Ceiling

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions.

Respiratory Protection: None should be needed. A full-face positive-pressure air-supplied respirator must be worn if hazardous decomposition products are likely to be released or have been released. See Stability and Reactivity Section. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134.

Eye Protection: Wear safety glasses with side shields (or goggles).

Skin Protection: Wear impervious gloves and protective clothing appropriate for the risk of exposure.

Recommended Decontamination Facilities: Eye bath, washing facilities, safety shower

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Liquid

Color: Amber

Odor: Sulfur

Specific Gravity (water = 1): 1.23

Vapor Pressure at 20 C (68 F): 24 mbar (18 mm Hg)

Vapor Density (Air = 1): 0.6

Volatile Fraction by Weight: 70-80 %

Boiling Point: >100 C (>212 F)

Solubility in Water: Complete

pH: 11.7

Flash Point: None, noncombustible liquid

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10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Acids. Contact with acid liberates flammable material.

Hazardous Decomposition Products: Hydrogen sulfide, sulfur dioxide

Hazardous Polymerization: Will not occur.

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11. TOXICOLOGICAL INFORMATION

Effects of Exposure:

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Inhalation: Vapor irritating. May cause irritation to the mucous membranes and upper respiratory tract. If hydrogen sulfide gas is liberated due to contact with acid, it may cause headache, nausea, dizziness, confusion, weakness, unconsciousness, convulsions and death.

Eyes: Causes burns. Vapor irritating.

Skin: Causes irritation.

Ingestion: Harmful if swallowed. If free gastric acidity is high, hydrogen sulfide is liberated in the stomach and may cause systemic toxic effects such as vomiting, respiratory depression, tremors, convulsions and death.

Acute Toxicity Data:

Oral LD-50 (rat): 0.5-5.0 g/kg

Skin irritation: moderate

Eye irritation: severe

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12. ECOLOGICAL INFORMATION

Introduction: This environmental effects summary is written to assist in addressing emergencies created by an accidental spill which might occur during the shipment of this material, and, in general, it is not meant to address discharges to sanitary sewers or publically owned treatment works.

Summary: Data for the major components of this material have been used to estimate the environmental impact of this material. This material is a strongly alkaline aqueous solution, and this property may cause adverse environmental effects. However, this material, itself, has not been tested for environmental effects.

It is expected to have the following properties: no biochemical oxygen demand and no potential to cause oxygen depletion in aqueous systems, a high potential to affect some aquatic organisms, a low potential to bioconcentrate. After dilution with a large amount of water, followed by secondary waste treatment, this material is not expected to cause adverse environmental effects.

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13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Flush to sewer with large amounts of water.

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14. TRANSPORT INFORMATION

- For transportation information regarding this product, please phone the

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Eastman Kodak Distribution Center nearest you: Rochester, NY (716) 588-3536  
or 588-3573 or 588-3035; Oak Brook, IL (312) 954-6000; Chamblee, GA (404)  
455-0123; Dallas, TX (214) 241-1611; Whittier, CA (213) 945-1255; Honolulu,  
HI (808) 833-1661.  
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15. REGULATORY INFORMATION

- Material(s) known to the State of California to cause cancer: None
- Material(s) known to the State of California to cause adverse reproductive effects: None
- Carcinogenicity Classification (components present at 0.1% or more):
  - International Agency for Research on Cancer (IARC): None
  - American Conference of Governmental Industrial Hygienists (ACGIH): None
  - National Toxicology Program (NTP): None
  - Occupational Safety and Health Administration (OSHA): None
- Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: None

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16. OTHER INFORMATION

US/Canadian Label Statements:

CONTAINS: Potassium sulfide (001312-73-8)

DANGER!

CAUSES EYE BURNS

CONTACT WITH ACID LIBERATES FLAMMABLE AND POISONOUS GAS

HARMFUL IF SWALLOWED

VAPOR IRRITATING TO THE EYES AND RESPIRATORY TRACT

CAUSES SKIN IRRITATION

Do not get in eyes and avoid contact with skin and clothing.

Store in original tightly closed container.

Use with adequate ventilation.

Wash thoroughly after handling.

FIRST AID: If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, move to fresh air. Treat symptomatically. In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Keep out of reach of children.

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Do not handle or use until safety precautions in Material Safety Data Sheet (MSDS) have been read and understood

Additional hazard precautions for containers greater than 1 gallon of liquid or 5 pounds of solid:

Since emptied containers retain product residue, follow label warnings even after container is emptied.

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The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.