200000715/F/USA - F-0006.500D Approval Date: 03/30/1994 Print Date: 04/02/1994

Page 1

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: KODAK 28% Acetic Acid

Catalog Number(s): 146 2829 - 1 pint (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 354786, PCD 2923, F-0006.500

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight % - Component - (CAS Registry No.)

70-75 Water (007732-18-5)

Acetic acid (000064-19-7) 25-30

3. HAZARDS IDENTIFICATION

DANGER! CONTAINS: Acetic acid (000064-19-7)

POISON

MAY BE FATAL IF SWALLOWED CAUSES SKIN AND EYE BURNS

VAPOR IRRITATING TO THE EYES AND RESPIRATORY TRACT

HMIS Hazard Ratings:

Health - 3, Flammability - 0, Reactivity - 0, Personal Protection - D

NFPA Hazard Ratings:

Health - 2, Flammability - 0, Reactivity (Stability) - 0

NOTE: HMIS and NFPA ratings involve data and interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

4. FIRST-AID MEASURES

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

200000715/F/USA - F-0006.500D Approval Date: 03/30/1994 Print Date: 04/02/1994 Page 3

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

ACGIH Threshold Limit Value (TLV):

Acetic acid: 10 ppm TWA; 15 ppm STEL

OSHA (USA) Permissible Exposure Limit (PEL - 1971 Table Z-1 Values):

Acetic acid: 10 ppm TWA

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

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: Organic vapor.

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) and a face shield.

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Liquid
Color: Colorless
Odor: Sharp
Specific Gravity (water = 1): 1.036
Vapor Pressure at 20 C (68 F): 24 mbar (18 mm Hg)
Vapor Density (Air = 1): 0.6
Volatile Fraction by Weight: 100 %
Boiling Point: >100 C (>212 F)
Solubility in Water: Complete
pH: 3.0
Flash Point: None, noncombustible liquid

200000715/F/USA - F-0006.500D Approval Date: 03/30/1994 Print Date: 04/02/1994 Page 4

10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Strong oxidizing agents, strong bases

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Effects of Exposure:

Inhalation: Vapor irritating. May cause irritation to the mucous membranes and upper respiratory tract.

Eyes: Causes burns. Vapor causes eye irritation and tearing.

Skin: Causes burns.

Ingestion: May be fatal if swallowed. May cause burns of the qastrointestinal tract if swallowed.

Acute Toxicity Data:

Oral LD-50 (rat): > 3.2 mL/kg

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. However, this material, itself, has not been tested for environmental effects. This material is a strongly acidic aqueous solution, and this property may cause adverse environmental effects.

It is expected to have the following properties: a moderate biochemical oxygen demand and may cause oxygen depletion in aqueous systems a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination and/or early growth of some plants, a high potential to affect the germination and/or early growth of some plants, a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge, a low potential to

200000715/F/USA - F-0006.500D

Approval Date: 03/30/1994 Print Date: 04/02/1994

Page 5

bioconcentrate. After dilution with a large amount of water, followed by secondary waste treatment, this material is not expected to cause adverse environmental effects.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

- For transportation information regarding this product, please phone the 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.

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

16. OTHER INFORMATION

US/Canadian Label Statements:

CONTAINS: Acetic acid (000064-19-7)
DANGER!
POISON
MAY BE FATAL IF SWALLOWED
CAUSES SKIN AND EYE BURNS
VAPOR IRRITATING TO THE EYES AND RESPIRATORY TRACT

Do not get in eyes, on skin, on clothing. Avoid breathing vapor.

200000715/F/USA - F-0006.500D Approval Date: 03/30/1994 Print Date: 04/02/1994

Page 6

Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

FIRST AID: If swallowed, do NOT induce vomiting. Give victim a glass of water. 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.

For additional information, see Material Safety Data Sheet (MSDS) for this material.

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.

200000715/F/USA - F-0006.500D Approval Date: 03/30/1994 Print Date: 04/02/1994

Page 2

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. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Do NOT induce vomiting. Give victim a glass of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

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

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.

7. HANDLING AND STORAGE

Personal Precautionary Measures: Do not get in eyes, on skin, on clothing. Avoid breathing vapor. 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 closed. Keep away from incompatible substances (see Incompatibility section).