

## MATERIAL SAFETY DATA SHEET

200000844/F/USA  
 Approval Date: 06/17/1998  
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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: KODAK Glacial Acetic Acid

Catalog Number(s): 146 2837 - 16 Fluid ounce(s)  
 146 2845 - 1 Gallon (U.S.)  
 146 2852 - 6 Gallons (U.S.)  
 177 8745 - 55 Gallons (U.S.)  
 100 1221 - 275 Gallons (U.S.)  
 825 2165 - 325 gallons (U.S.)

Manufacturer/Supplier: EASTMAN KODAK COMPANY, Rochester, New

For Emergency Health, Safety & Environmental Information, ca

For other information or to request an MSDS, call (800) 242-

Synonym(s): KAN 900763; PCD 10001; F-0086.000

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight % - Component - (CAS Registry No.)

100 acetic acid (000064-19-7)

## 3. HAZARDS IDENTIFICATION

DANGER!  
 POISON  
 MAY BE FATAL OR HARMFUL IF SWALLOWED  
 CAUSES SEVERE SKIN AND EYE BURNS  
 VAPOR EXTREMELY IRRITATING TO THE EYES AND RESPIRATORY TRACT  
 COMBUSTIBLE LIQUID AND VAPOR

HMIS Hazard Ratings:

Health - 3, Flammability - 2, Reactivity - 0, Personal Prot

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Eliminate all ignition sources. Absorb spill with vermiculit material, then place in a container for chemical waste.

For Large Spills: Flush spill area with water spray. Prevent entering drains, sewers, or streams.

## 7. HANDLING AND STORAGE

Personal Precautionary Measures: Do not breathe vapor at con greater than the exposure limits. Do not get in eyes, on ski Use only with adequate ventilation. Wash thoroughly after ha

Prevention of Fire and Explosion: Keep away from heat and fl contact with oxidizing materials. Use with adequate ventilat

Storage: Keep away from toxic substances. Keep container clo from incompatible substances (see Incompatibility section).

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

ACGIH Threshold Limit Value (TLV):

10 ppm TWA; 15 ppm STEL

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

10 ppm TWA

Ventilation: Use process enclosures, local exhaust ventilati engineering controls to maintain airborne levels below recom limits.

Respiratory Protection: If engineering controls do not maint concentrations below recommended exposure limits, an approve be worn. Respirator type: Full-face organic vapor cartridge. are used, a program should be instituted to assure complianc Standard 29 CFR 1910.134.

Eye Protection: If a full-face respirator is not worn, wear chemical goggles.

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

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NFPA Hazard Ratings:

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

NOTE: HMIS and NFPA hazard indexes involve data review and i may vary among companies. They are intended only for rapid, identification of the magnitude of the potential hazards. Th protection index is only intended for general guidance on pe equipment (PPE) that is suitable for the potential hazards o PPE (e.g., respirators) may not be needed if engineering con ventilation) are adequate. An asterisk (\*), in the HMIS heal designates potential chronic or target organ hazards. To ade safe handling, ALL information in this MSDS must be consider

## 4. FIRST-AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, gi breathing, give artificial respiration. Get medical attentio

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

Skin: Immediately flush with plenty of water for at least 15 removing contaminated clothing and shoes. Get medical attent Wash contaminated clothing before reuse. Destroy contaminate

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

## 5. FIRE FIGHTING MEASURES

Extinguishing Media: Water spray, dry chemical, carbon dioxi foam

Special Fire-Fighting Procedures: Wear self-contained breath protective clothing. Use water spray to keep fire-exposed co

Hazardous Combustion Products: Carbon dioxide, carbon monoxi

Unusual Fire and Explosion Hazards: Combustible.

## 6. ACCIDENTAL RELEASE MEASURES

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Recommended Decontamination Facilities: Eye bath, washing fa shower

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Liquid  
 Color: Colorless  
 Odor: Pungent, vinegar  
 Specific Gravity (water = 1): 1.05  
 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: 115°C (239°F)  
 Solubility in Water: Complete  
 pH: 1.0  
 Flash Point (Tag closed cup): 39°C (103°F)

## 10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Material can react with metals, bases, stro agents, amines.

Hazardous Polymerization: Will not occur

## 11. TOXICOLOGICAL INFORMATION

Effects of Exposure:

General: Acute overexposure to extremely high airborne con respiratory irritants has been associated with development reactive airways syndrome (RADS) in susceptible individual airborne concentrations are not generated during normal co but may occur following a spill. The potential to generate airborne concentrations in a spill situation depends upon such as the concentration of the solution, the volume of t surface area of the spill, the size of the room where the the ventilation rate in the room.

Inhalation: Vapor extremely irritating.

Eyes: Causes severe burns. Vapor extremely irritating.

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Skin: Causes severe burns.

Ingestion: May be fatal or harmful if swallowed. May cause gastrointestinal tract if swallowed.

Acute Toxicity Data:

Oral LD-50 (rat): 3310-3530 mg/kg  
 Oral LD-50 (mouse): 4960 mg/kg  
 Inhalation LC-50 (mouse): 5620 ppm/1 hour(s)  
 Dermal LD-50: 1060 mg/kg  
 Skin irritation: severe  
 Eye irritation: severe

12. ECOLOGICAL INFORMATION

Introduction: This environmental effects summary is written addressing emergencies created by an accidental spill which the shipment of this material, and, in general, it is not me discharges to sanitary sewers or publically owned treatment

Summary: Data for this material have been used to estimate i impact. This material forms a strongly acidic aqueous soluti property may cause adverse environmental effects.

It has the following properties: A high biochemical oxygen d potential to cause oxygen depletion in aqueous systems, a lo affect aquatic organisms, a low potential to affect secondar microbial metabolism, a high potential to affect the germina growth of some plants, a low potential to affect the growth seedlings, a high potential to biodegrade (low persistence) microorganisms from activated sludge, a low potential to bio dilution with a large amount of water, followed by secondary this material is not expected to cause adverse environmental

Oxygen Demand Data:

BOD-5: 0.34-0.88 g oxygen/g  
 COD: 1.0 g oxygen/g

Acute Aquatic Effects Data:

96-h LC-50 (fathead minnow): &gt;100 mg/L  
 96-h LC-50 (daphnid): 100 mg/L  
 48-h LC-50 (mosquito fish): 251 mg/L  
 48-h LC-50 (golden orfe): 410 mg/L

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US/Canadian Label Statements:

**DANGER!**  
**POISON**  
 MAY BE FATAL OR HARMFUL IF SWALLOWED  
 CAUSES SEVERE SKIN AND EYE BURNS  
 VAPOR EXTREMELY IRRITATING TO THE EYES AND RESPIRATORY TRA  
 COMBUSTIBLE LIQUID AND VAPOR

Do not breathe vapor at concentrations greater than the ex  
 Do not get in eyes, on skin, on clothing.  
 Use only with adequate ventilation.  
 Keep away from heat and flame.  
 Keep container closed.  
 Wash thoroughly after handling.

FIRST AID: If swallowed, do NOT induce vomiting. Give vict  
 water. Never give anything by mouth to an unconscious pers  
 physician or poison control center immediately. If inhaled  
 air. If not breathing, give artificial respiration. If bre  
 difficult, give oxygen. In case of contact, immediately fl  
 with plenty of water for at least 15 minutes while removin  
 clothing and shoes. Get medical attention immediately. Was  
 clothing before reuse. Destroy or thoroughly clean contami

Keep out of reach of children

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

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

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

IN CASE OF FIRE: Use water spray, dry chemical, carbon d  
 alcohol foam. Use water spray to keep fire-exposed conta

IN CASE OF SPILL: Eliminate all ignition sources. Flush  
 water spray. Prevent runoff from entering drains, sewers

The information contained herein is furnished without warran  
 Users should consider these data only as a supplement to oth  
 gathered by them and must make independent determinations of

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Secondary Waste Water Treatment Effects: 5-hour IC-50: &gt;5

7-Day Plant Germination Effects - No-adverse-effect concentr

Ryegrass: 1 mg/L  
 Radish: 10 mg/L  
 Lettuce: 10 mg/L

7-Day Plant Seedling Effects - No-adverse-effect concentrati

Corn: 100 mg/L  
 Marigold: 100 mg/L  
 Radish: 100 mg/L  
 Lettuce: 100 mg/L

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal is subject to national, st  
 laws. Contract with a licensed chemical disposal agency. Sin  
 containers retain product residue, follow label warnings eve  
 is emptied.

14. TRANSPORT INFORMATION

- For transportation information regarding this product call  
 Worldwide Transportation Hazmat Hot Line: (716) 722-2400 b  
 5 p.m. (Eastern Standard Time), Monday through Friday.

15. REGULATORY INFORMATION

- Material(s) known to the State of California to cause canc  
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 effects: None

- Carcinogenicity Classification (components present at 0.1%  
 - International Agency for Research on Cancer (IARC): None  
 - American Conference of Governmental Industrial Hygienist  
 - National Toxicology Program (NTP): None  
 - Occupational Safety and Health Administration (OSHA): No

- Chemical(s) subject to the reporting requirements of Secti  
 III of the Superfund Amendments and Reauthorization Act (S  
 40 CFR Part 372: None

16. OTHER INFORMATION

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completeness of information from all sources to assure prope  
 of these materials and the safety and health of employees an  
 the protection of the environment.

R-2, S-3, F-2, C-0

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