

Material Safety Data Sheet

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1. Identification of the substance/mixture and of the company/undertaking

Product name: K-GH (50) HA POLYOL IN ETHYL ACETATE

Product code: 10074374

Supplier: Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608; Carestream Health Canada Company, 6 Monogram Place, Suite 200, Toronto, Ontario, M9R 0A1

For Emergency Health Information call, (800) 424-9300

For other information contact 800-328-2910.

Synonyms: None.

Product Use: Film or paper manufacturing chemical
For industrial use only.

2. Hazards identification

CONTAINS: Ethyl acetate (141-78-6)

WARNING!
FLAMMABLE LIQUID AND VAPOR
HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS AND IRRITATION OF THE EYES OR RESPIRATORY TRACT
CAN CAUSE CNS EFFECTS

NFPA Hazard Ratings: Health - 1, Flammability - 3, Instability - 0

NOTE: NFPA 704 (2007) hazard indexes involves data review and interpretation that may vary among companies. It is intended only for rapid, general identification of the magnitude of the potential hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight %	Components (CAS-No.)
60 - 65	Ethyl acetate (141-78-6)
40 - 45	K-GH(50)HA polyol (not applicable)

4. First aid measures

Inhalation: If inhaled, move to fresh air. Get medical attention if symptoms occur.

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

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Skin: Wash off with soap and water. Get medical attention if symptoms occur.

Ingestion: Get medical attention if symptoms occur.

5. Fire-fighting measures

Extinguishing Media: Water spray, Carbon dioxide (CO₂), Dry chemical, Foam.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products. USE WATER WITH CAUTION. Use water spray to keep fire-exposed containers cool. The product is insoluble and floats on water. Do not use a solid water stream as it may scatter and spread fire. Water may be ineffective.

Hazardous Combustion Products: Carbon oxides, hydrogen chloride

Unusual Fire and Explosion Hazards: Flammable. Material contains a flammable solvent that may accumulate in the container headspace. Vapours may form explosive mixtures with air. Prevent buildup of vapours or gases to explosive concentrations.

6. Accidental release measures

Methods for cleaning up: Remove all sources of ignition. Absorb spill with inert material, then place in a chemical waste container.

For Large Spills: Use water spray to disperse vapours and dilute spill to a nonflammable mixture. Prevent runoff from entering drains, sewers, or streams.

7. Handling and storage

Personal precautions: Do not breathe mist or vapour at concentrations greater than the exposure limits. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from open flames, hot surfaces and sources of ignition. Use only with adequate ventilation. Keep from contact with oxidizing materials. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

Storage: Store in cool place. Keep containers tightly closed in a cool, well-ventilated place. Keep away from incompatible substances (see Incompatibility section.)

8. Exposure controls / personal protection

Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
Ethyl acetate	ACGIH	time weighted average	400 ppm
	OSHA Z1	time weighted average	400 ppm 1,400 mg/m ³

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OSHA Z1A time weighted average 400 ppm 1,400 mg/m3

Ventilation: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

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

Skin and body protection: For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and Chemical Properties

Physical form: liquid

Colour: No data available

Odour: No data available

Specific gravity: No data available

Vapour pressure: No data available

Vapour density: No data available

Volatile fraction by weight: 60 - 65 %

Boiling point/range: No data available

Water solubility: No data available

pH: No data available

Flash point: < 38.0 °C (< 100.4 °F) (estimated)

10. Stability and reactivity

Stability: Stable under normal conditions.

Incompatibility: Strong oxidizing agents.

Hazardous decomposition products: hydrogen chloride.

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Hazardous Polymerization: Hazardous polymerization does not occur.

11. Toxicological information

Effects of Exposure

General advice:

Contains: K-GH(50)HA polyol. The toxicological properties of this material have not been evaluated. Expected to be a low hazard based on the toxicological properties of structurally similar compounds.

Inhalation: High vapour concentrations may cause drowsiness and irritation.

Eyes: High vapour concentrations may cause irritation.

Skin: Prolonged or repeated contact may cause drying, cracking, or irritation.

Ingestion: Expected to be a low hazard for recommended handling.

Data for Ethyl acetate (CAS 141-78-6):

Acute Toxicity Data:

- Oral LD50 (rat): 5,600 mg/kg
- Inhalation LC50: 16000 ppm / 6 hr
- Dermal LD50: > 20 mL/kg
- Skin irritation: very slight
- Skin Sensitization: negative
- Eye irritation: slight

Definitions for the following section(s): LOEL =lowest-observed-effect level, LOAEL = lowest-observed-adverse-effect, NOAEL = no observed-adverse-effect level, NOEL =no-observed-effect level.

Repeated dose toxicity:

- Inhalation (11 weeks, guinea pig): NOEL; 2000 ppm (Subchronic toxicity, only concentration tested)

12. Ecological information

This section has not been completed.

13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

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14. Transport information

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

IATA: UN Number: UN1993
Proper shipping name: Flammable liquid, n.o.s. (Ethyl acetate)
Class: 3
Packaging group: III

IMDG: UN Number: UN1993
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethyl acetate)
Class: 3
Packaging group: III

US DOT: UN Number: UN1993
Proper shipping name: Flammable liquids, n.o.s. (Ethyl acetate)
Class: 3
Packaging group: III

For more transportation information, go to: <http://ship.carestreamhealth.com>.

15. Regulatory information

Notification status

Regulatory List	Notification status	Other information	Not listed
EINECS	n (Negative listing)	-	K-GH(50)HA polyol
TSCA	n (Negative listing)	Not On TSCA Inventory	K-GH(50)HA polyol
AICS	n (Negative listing)	-	K-GH(50)HA polyol
DSL	n (Negative listing)	This product contains the following components that are not on the Canadian DSL nor NDSL lists.	K-GH(50)HA polyol
ENCS (JP)	n (Negative listing)	-	K-GH(50)HA polyol
KECI (KR)	n (Negative listing)	-	K-GH(50)HA polyol
PICCS (PH)	n (Negative listing)	-	K-GH(50)HA polyol
INV (CN)	n (Negative listing)	-	K-GH(50)HA polyol

A N (Negative listing) indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Kodak.

Other regulations

American Conference of Governmental Industrial Hygienists

No component of this product present at

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(ACGIH):	levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
International Agency for Research on Cancer (IARC):	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
U.S. National Toxicology Program (NTP):	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
U.S. Occupational Safety and Health Administration (OSHA):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
U.S. California Prop. 65:	none
US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323):	Ethyl acetate, K-GH(50)HA polyol
US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000):	Ethyl acetate
US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5):	Ethyl acetate, K-GH(50)HA polyol
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:	SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR355, Appendix A):	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

16. Other information

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

US/Canadian Label Statements:

CONTAINS: Ethyl acetate (141-78-6)

WARNING!
FLAMMABLE LIQUID AND VAPOR
HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS AND IRRITATION OF
THE EYES OR RESPIRATORY TRACT
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Keep container tightly closed.

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Keep away from open flames, hot surfaces and sources of ignition.
Store in cool place.
Do not breathe vapours or spray mist.
Avoid contact with eyes, skin, and clothing.
Use only with adequate ventilation.
Wash thoroughly after handling.
Residual vapours may explode on ignition; do not cut, drill, grind, or weld on or near this container.

FIRST AID: If inhaled, move to fresh air. Get medical attention if symptoms occur. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Keep out of reach of children.

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

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

IN CASE OF FIRE: Use Water spray, Carbon dioxide (CO₂), Dry chemical, Foam.

IN CASE OF SPILL: Remove all sources of ignition. Absorb spill with inert material, then place in a chemical waste container. For Large Spills: Use water spray to disperse vapours and dilute spill to a nonflammable mixture. Prevent runoff from entering drains, sewers, or streams.

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. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.

R-1, S-1, F-3, C-0