

G135, Industrial X-Ray Developer/Replenisher Part B

SUBID:00000009990

Version 1
Revision Date 10-08-2007

Print Date 10-09-2007

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Identification of the substance/preparation

Product name : G135, Industrial X-Ray Developer/Replenisher Part B
 MSDS Number : 000000009990
 Use of the Substance/Preparation : Aqueous photographic concentrate
 Product code : LJR2L, LCWVD, FXQV2
 Business group : IN

Company/Undertaking Identification

Agfa Corporation
 100 Challenger Road
 Ridgefield Park, NJ 07660
 U.S.A.

Transport Emergency

Non-transportation

Call CHEMTREC : +1 800 4249300
 International : +1 703 5273887

Health Emergency Phone : +1 303 6235716
 Agfa Information Phone : +1 201 4402500

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

	<u>CAS-No.</u>	<u>Concentration [%]</u>	
• Acetic acid	64-19-7	>= 60.0	< 70.0
• Diethylene glycol	111-46-6	>= 20.0	< 30.0
• 1-Phenyl-3-pyrazolidone	92-43-3	>= 5.0	< 10.0
• Water	7732-18-5	>= 5.0	< 10.0

SECTION 3. HAZARDS IDENTIFICATION

The product as a whole has not been tested.

Emergency Overview

Form : Liquid.
 Colour : Clear. Colourless.
 Odour : Smell of acetic acid

DANGER !

Corrosive. Irritating gases/fumes may be given off during burning or thermal decomposition.
 Causes respiratory tract irritation. May cause skin burns. Causes eye burns.

Potential Health Effects

Primary Routes of Entry : Skin contact. Eye contact. Inhalation. Accidental ingestion.

Acute health effects

Inhalation

- Acetic acid : Is expected to be irritating to the respiratory tract with symptoms of coughing, sore throat, and runny nose.

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- Diethylene glycol : Inhalation of vapors is unlikely due to its low vapor pressure. However, if misted or handled at elevated temperatures, high concentrations can produce drowsiness, headache, dizziness, and nausea.
- 1-Phenyl-3-pyrazolidone : Is expected to be irritating to the respiratory tract with symptoms of coughing, sore throat, and runny nose.

Skin contact

- Acetic acid : Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage. Skin sensitization is rare, but has been reported.
- 1-Phenyl-3-pyrazolidone : Repeated or prolonged exposure may cause an allergic respiratory reaction in previously exposed individuals.

Eye contact

- Acetic acid : Overexposure can cause severe irritation resulting in burning, stinging, reddening, tearing, swelling and possible injury to the cornea depending on the concentration.
- 1-Phenyl-3-pyrazolidone : Can be irritating to the eyes with symptoms of reddening, itching, stinging, and swelling.

Ingestion

- Acetic acid : Swallowing high concentrations may cause severe injury.
- Diethylene glycol : Can result in behavioral change, drowsiness, kidney and liver failure, and coma. The oral toxicity is greater in humans than in laboratory animals. The estimated single lethal dose-oral-human is 1.0 ml/kg.
- 1-Phenyl-3-pyrazolidone : May cause gastrointestinal irritation. Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

Chronic health hazards**Skin contact**

- 1-Phenyl-3-pyrazolidone : Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Carcinogenicity

The components of this product are not listed by NTP, IARC or regulated as a carcinogen by OSHA.

SECTION 4. FIRST AID MEASURES

- Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Skin contact : Wash off immediately with plenty of water for at least 20 minutes. Immediately remove contaminated clothing and shoes. If symptoms persist, call a physician.
- Ingestion : Rinse mouth with plenty of water. Seek medical advice.
- Inhalation : Take person to fresh air. If necessary, seek medical advice.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : All extinguishing media are suitable.

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- Specific hazards during fire fighting : Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.
- Special protective equipment for fire-fighters : Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.
- Additional advice : Product is not combustible. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Cleanup personnel must use appropriate personal protective equipment. See section : Exposure controls / personel protection.
- Environmental precautions : Do not allow spilled material or wash water to enter sewers, surface waters, or groundwater systems.
- Methods for cleaning up : Apply absorbent material and collect into a waste container for removal by a licensed company.

SECTION 7. HANDLING AND STORAGE

Storage

- Advice on common storage : Store away from strong oxidizing agents.
- Storage conditions : Keep locked up or in an area accessible only to qualified or authorised persons.
- Requirements for storage areas and containers : Storage temperature not below 5 °C (41 °F).

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Values (US)

Components	CAS-No.	Values	Type	Revision Date	Basis
Acetic acid	64-19-7	10 ppm	TWA	2002	ACGIH
		15 ppm	STEL	2002	ACGIH
		25 mg/m3	PEL	06 1993	OSHA Z1
		25 mg/m3	TWA	1989	OSHA Z1A

Exposure controls

- Hygiene measures : General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.
- Respiratory protection : If respirators are used, institute a program in accordance with OSHA standard 29CFR1910.134 or Canada CSA Standard Z94.4-02.
- Hand protection : Rubber, nitrile, neoprene or polychloroprene gloves.
- Eye protection : Splash proof goggles.
- Personal protective equipment : Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	Liquid.
Colour	:	Clear. Colourless.
Odour	:	Smell of acetic acid
Vapour pressure	:	Not established.
Density	:	1.09 g/cm ³
pH	:	1.3
Boiling point/range	:	No data available
Flash point	:	> 93.3 °C (199.9 °F)
VOC content	:	87.3 %

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	:	Avoid contact with oxidizing agents. Remove all chemicals and rinse the processing tanks thoroughly with water before using any cleansing products.
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SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity data specific for individual ingredients in their pure state:

Acute oral toxicity

• Acetic acid	:	LD50 rat	3,310 mg/kg
• Diethylene glycol	:	LD50 rat	12,565 mg/kg
• 1-Phenyl-3-pyrazolidone	:	LD50 rat	200 mg/kg

Acute inhalation toxicity

• Acetic acid	:	LC50 rat	11.4 mg/l/ 4 h
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Acute dermal toxicity

• Acetic acid	:	LD50 rabbit	1,060 mg/kg
• Diethylene glycol	:	LD50 rabbit	11,890 mg/kg
• 1-Phenyl-3-pyrazolidone	:	LD50 guinea pig	> 1,000 mg/kg

Chronic toxicity

• Diethylene glycol	:	Repeated ingestion over two years produced liver and kidney damage and bladder stones in laboratory rats.
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SECTION 12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)****Biodegradation**

• Acetic acid	:	OECD 301D Assessment of biological degradability 99 % after 30 d
• 1-Phenyl-3-pyrazolidone	:	OECD 302B Inherent biodegradability 64 % after 28 d

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Ecotoxicity effects

Ecotoxicity data specific for individual ingredients in their pure state:

Toxicity to fish

- Acetic acid : Species: Pimephales promelas (fathead minnow)
LC50: 88 mg/l/ 96 h
- Diethylene glycol : Species: Lepomis macrochirus (bluegill sunfish)
LC50: > 1,000 mg/l/ 96 h
- 1-Phenyl-3-pyrazolidone : Species: Pimephales promelas (fathead minnow)
LC50: < 10 mg/l/ 96 h

Toxicity to daphnia

- Acetic acid : Species: Daphnia magna (water flea)
EC50: 47 mg/l/ 24 h
- Diethylene glycol : Species: Daphnia magna (water flea)
EC50: > 1,000 mg/l/ 24 h
- 1-Phenyl-3-pyrazolidone : Species: Daphnia magna (water flea)
EC50: 10 mg/l/ 96 h

Toxicity to algae

- Acetic acid : Species: Scenedesmus quadricauda (algae)
EC10: 4,000 mg/l/ 8 d
- Diethylene glycol : Species: Scenedesmus quadricauda (algae)
EC0: 2,700 mg/l/ 7 d
- 1-Phenyl-3-pyrazolidone : Species: Selenastrum capricornutum (algae)
EC0: 10 mg/l/ 48 h

Toxicity to bacteria

- Acetic acid : Species: Pseudomonas putida (bacteria)
EC10: 2,850 mg/l/ 16 h
- Diethylene glycol : Species: Pseudomonas putida (bacteria)
EC10: 8,000 mg/l/ 72 h

SECTION 13. DISPOSAL CONSIDERATIONS**Waste disposal methods**

Recover nonusable free liquid and/or contaminated water, and dispose of in an approved and permitted treatment system. Discharge to sewer may require approval of permitting authority and may require pretreatment.

US. RCRA Hazardous Waste Classification (40 CFR 261)

When discarded in its purchased form, this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002).

SECTION 14. TRANSPORT INFORMATION**CFR_ROAD**

- UN-No : 2790
- Proper shipping name : Acetic acid solution
- Class : 8
- Packing group : II

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Labelling No. : 8

CFR_RAIL

UN-No : 2790
Proper shipping name : Acetic acid solution
Class : 8
Packing group : II
Labelling No. : 8

CFR_INWTR

UN-No : 2790
Proper shipping name : Acetic acid solution
Class : 8
Packing group : II
Labelling No. : 8

TDG_ROAD

UN-No : 2790
Proper shipping name : ACETIC ACID SOLUTION
Class : 8
Packing group : II
Labelling No. : 8

TDG_RAIL

UN-No : 2790
Proper shipping name : ACETIC ACID SOLUTION
Class : 8
Packing group : II
Labelling No. : 8

TDG_INWTR

UN-No : 2790
Proper shipping name : ACETIC ACID SOLUTION
Class : 8
Packing group : II
Labelling No. : 8

IMO / IMDG

UN-No : 2790
Proper shipping name : ACETIC ACID SOLUTION
Class : 8
Packing group : II
Labelling No. : 8
EmS : F-A, S-B

ICAO / IATA cargo aircraft only

UN-No : 2790
Proper shipping name : Acetic acid solution
Class : 8
Packing group : II
Labelling No. : 8
Packing instruction : 813

ICAO / IATA passenger and cargo aircraft

UN-No : 2790
Proper shipping name : Acetic acid solution
Class : 8
Packing group : II

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Labelling No. : 8
Packing instruction : 809

SECTION 15. REGULATORY INFORMATION

US. Toxic Substances Control Act (TSCA)

All of the components of this product are listed on the TSCA Inventory.

US. OSHA Classification

This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

US. SARA 311/312 Hazard Categories

Immediate Health Hazard.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

- Acetic acid : Reportable quantity: 5,000 lbs

US. California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

State Right-to-Know Information

The following chemicals are specifically listed by individual states. Other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

- | | <u>CAS-No.</u> | <u>Concentration [%]</u> |
|---------------|----------------|--------------------------|
| • Acetic acid | 64-19-7 | >= 60.0 - < 70.0 |

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

- | | <u>CAS-No.</u> | <u>Concentration [%]</u> |
|---------------------|----------------|--------------------------|
| • Acetic acid | 64-19-7 | >= 60.0 - < 70.0 |
| • Diethylene glycol | 111-46-6 | >= 20.0 - < 30.0 |

US. Rhode Island Hazardous Substances Right-to-Know Act (R.I. Gen. Laws Section 28-21-1 et. seq.)

- | | <u>CAS-No.</u> | <u>Concentration [%]</u> |
|---------------------|----------------|--------------------------|
| • Acetic acid | 64-19-7 | >= 60.0 - < 70.0 |
| • Diethylene glycol | 111-46-6 | >= 20.0 - < 30.0 |

US. Massachusetts, New Jersey, Pennsylvania or Rhode Island Right to Know Substance Lists : See Section 2.

Canadian WHMIS Classification

E : Corrosive Material

Canadian Environmental Protection Act (CEPA)

All components of this product are on the Canadian DSL list.

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SECTION 16. OTHER INFORMATION

US. HMIS Rating

Health	:	3
Flammability	:	0
Reactivity	:	0

(0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe)

US. NFPA 704M Rating

Health	:	3
Flammability	:	0
Reactivity	:	0

(0 = Insignificant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme)

Agfa Corporation's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Agfa Corporation as a customer service.

This MSDS is replacing Agfa MSDS number 073TB.005

Section(s) changed compared to the previous issue: 8

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