G153, PART B

SUBID:000000000977

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Identification of the substance/preparation

Product name	:	G153, PART B
MSDS Number	:	000000000977
Use of the Substance/Preparation	:	Photographic developer concentrate
Product code	:	FSE3X
Business group	:	MI

Company/Undertaking Identification

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

Transport Emergency

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

Non-transportation

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

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Aqueous photographic developer concentrate, mainly consisting of:

	CAS-No.	Concentration [%]
• Diethylene glycol	111-46-6	>= 40.0 - <= 60.0
• Acetic acid	64-19-7	>= 10.0 - <= 20.0
• Water	7732-18-5	>= 20.0 - <= 30.0
• Glutaraldehyde bis(potassium sulphite)	68310-08-7	>= 5.0 - <= 10.0

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview

Form	:	Liquid.
Colour	:	Yellow to orange
Odour	:	Smell of acetic acid

WARNING !
Irritating gases/fumes may be given off during burning or thermal decomposition.
May cause respiratory tract irritation. May cause allergic respiratory reaction. Causes skin irritation. May cause allergic skin reaction. Causes eye irritation. Harmful if swallowed.

Potential Health Effects

Primary Routes of Entry	:	Eye contact. Skin contact. Inhalation of vapours or mists. Accidental ingestion.
Aggravated Medical Condition	:	Persons with preexisting eye, skin, liver, or kidney conditions or impaired pulmonary function may be more susceptible to the effects of this product.

Acute health effects

Inhalation

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

Skin contact

Product : Can be irritating to the skin with symptoms of reddening, itching, and swelling.

• Acetic acid	:	Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage. Skin sensitization is rare, but has been reported.
• Glutaraldehyde bis(potassium sulphite)	:	May be irritating to the skin with symptoms of reddening and itching.

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.

Ingestion

• 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.
• Acetic acid	:	Swallowing high concentrations may cause severe injury.

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 immediately with plenty of water and soap. If symptoms persist, seek medical advice.
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	:	e.g. water, CO2, foam, powder, sand.
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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	See section : Exposure controls / personel protection.
Environmental precautions	:	For waste disposal see section 13.
Methods for cleaning up	:	Dike the spill if necessary. Soak up with absorbent material. Collect large spills into a properly labelled and sealable container. Prevent release into the drain, soil or surface water.
Additional advice	:	Wash away residues with plenty of water.

SECTION 7. HANDLING AND STORAGE

Handling

Advice on protection against fire and explosion	:	Keep away from heat and sources of ignition.

Storage

Advice on common storage	:	Store away from strong acids, strong alkalis and strong oxidizing agents.
Requirements for storage areas and containers	:	Keep container tightly closed. Protect from direct sunlight.

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 15 ppm 25 mg/m3 25 mg/m3	TWA STEL PEL TWA	2002 2002 06 1993 1989	ACGIH ACGIH OSHA Z1 OSHA Z1A

Exposure Limit Values (CA)

Components	CAS-No.	Values	Type	Revision	Basis

				Date	
Acetic acid	64-19-7	25 mg/m3 37 mg/m3	TWA STEL	12 2008 12 2008	OEL (QUE) OEL (QUE)

Exposure controls

Hygiene measures : Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available. 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 : Under normal conditions of use, respirator protection is not required. If respirators are used, institute a program in accordance with OSHA standard 29CFR1910.134 or Canada CSA Standard Z94.4-02.

Hand protection : Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact use gloves made of the materials: butyl rubber (thickness >= 0.36 mm, breakthrough time > 480 min), nitrile rubber (thickness >= 0.38 mm, breakthrough time > 480 min) or neoprene (thickness >= 0.65 mm, breakthrough time > 240 min). For intermittent splash protection corresponding gloves with breakthrough times > 60 min can be used. Avoid gloves made of: natural latex.

Eye protection : Safety glasses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	Liquid.
Colour	:	Yellow to orange
Odour	:	Smell of acetic acid
Relative density	:	1.123 at 20 °C (68 °F)
pH (25 °C, 77 °F)	:	2.7
Melting point/range	:	< 0 °C (< 32 °F)
Boiling point/range	:	> 100 °C (> 212 °F)
VOC content	:	59.8 % 705.2 g/l VOC content excluding water

SECTION 10. STABILITY AND REACTIVITY

Stability	:	The product is stable under normal conditions of storage and use.
Hazardous decomposition products	:	Hazardous decomposition products None
Thermal decomposition	:	Not applicable
Conditions to avoid	:	Avoid contact with strong acids, strong alkalis and strong oxidizing agents. Remove all chemicals and rinse the processing tanks thoroughly with water before using any cleansing products.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity data specific for individual ingredients in their pure state:

Acute oral toxicity

• Diethylene glycol	:	LD50 rat	12,565 mg/kg
• Acetic acid	:	LD50 rat	3,310 mg/kg

Acute inhalation toxicity

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

Acute dermal toxicity

• Diethylene glycol	:	LD50 rabbit	11,890 mg/kg
• Acetic acid	:	LD50 rabbit	1,060 mg/kg

Chronic toxicity

- Diethylene glycol : Repeated ingestion over two years produced liver and kidney damage and bladder stones in laboratory rats.

Other information

In normal conditions of use, sulphur dioxide may be set free in concentrations well below the threshold limit value (TLV) of 2 ppm. Asthmatic individuals, however, may possibly be sensitive to concentrations as low as 0.1 ppm. Hazard labelling of this preparation or substance : see section 15.

SECTION 12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradation

- Acetic acid : OECD 301D Assessment of biological degradability
  99 % after 30 d

Ecotoxicity effects

Ecotoxicity data specific for individual ingredients in their pure state:

Toxicity to fish

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

Toxicity to daphnia

• Diethylene glycol	:	Species: Daphnia magna (water flea) EC50: > 1,000 mg/l/ 24 h
• Acetic acid	:	Species: Daphnia magna (water flea) EC50: 47 mg/l/ 24 h

Toxicity to algae

• Diethylene glycol	:	Species: Scenedesmus quadricauda (algae) EC0: 2,700 mg/l/ 7 d
• Acetic acid	:	Species: Scenedesmus quadricauda (algae) EC10: 4,000 mg/l/ 8 d

Toxicity to bacteria

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

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Waste disposal should be in accordance with existing federal, state and local environmental control laws. Discharge to sewer may require approval of permitting authority and may require pretreatment.

Empty containers.

Recondition or dispose of empty container in accordance with governmental regulations.

US. RCRA Hazardous Waste Classification (40 CFR 261)

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

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

Acute 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)

	CAS-No.	Concentration [%]
• Acetic acid	64-19-7	>= 10.0 - <= 20.0

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

	CAS-No.	Concentration [%]
• Diethylene glycol	111-46-6	>= 40.0 - <= 60.0
• Acetic acid	64-19-7	>= 10.0 - <= 20.0

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

	CAS-No.	Concentration [%]
• Diethylene glycol	111-46-6	>= 40.0 - <= 60.0
• Acetic acid	64-19-7	>= 10.0 - <= 20.0

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

Canadian WHMIS Classification

D2B : Toxic Material Causing Other Toxic Effects

Canadian Environmental Protection Act (CEPA)

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

SECTION 16. OTHER INFORMATION

US. HMIS Rating

Health	:	2

Flammability	:	0
Reactivity	:	0

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

US. NFPA 704M Rating

Health	:	2
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 202TB.008

Section(s) changed compared to the previous issue: 2, 3, 9, 16

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