

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Information

Product name : G135, PART B
Use of the : Photographic developer concentrate
Substance/Preparation

Company/Undertaking Identification

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2. COMPOSITION/INFORMATION ON INGREDIENTS

The hazard and labelling information in this section is that of the individual ingredients. The corresponding information relative to this product as supplied is given in section 15. Full text of each relevant R-phrase is listed in section 16.

Aqueous photographic developer concentrate, mainly consisting of:

Hazardous components

- | | | | | | |
|---------------------------|----------------|---------------------|------|---|------|
| • Diethylene glycol | | Concentration [%] : | 60.0 | - | 80.0 |
| CAS-No. | : 111-46-6 | | | | |
| Index-No. | : 603-140-00-6 | | | | |
| EINECS-No. | : 203-872-2 | | | | |
| Symbol(s) | : Xn | | | | |
| R-phrase(s) | : R22 | | | | |
| • Acetic acid | | Concentration [%] : | 30.0 | - | 40.0 |
| CAS-No. | : 64-19-7 | | | | |
| Index-No. | : 607-002-00-6 | | | | |
| EINECS-No. | : 200-580-7 | | | | |
| Symbol(s) | : C | | | | |
| R-phrase(s) | : R10, R35 | | | | |
| • 1-Phenyl-3-pyrazolidone | | Concentration [%] : | 1.0 | - | 5.0 |
| CAS-No. | : 92-43-3 | | | | |
| Index-No. | : 606-022-00-2 | | | | |
| EINECS-No. | : 202-155-1 | | | | |
| Symbol(s) | : Xn, N | | | | |
| R-phrase(s) | : R22, R51/53 | | | | |

Other

- | | | | | | |
|---------|--|---------------------|-----|---|-----|
| • Water | | Concentration [%] : | 1.0 | - | 5.0 |
|---------|--|---------------------|-----|---|-----|

3. HAZARDS IDENTIFICATION

EC-classification:

Symbol(s) : C Corrosive
R-phrases : R22 Harmful if swallowed.
R34 Causes burns.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Skin contact : Wash immediately with plenty of water and soap. If symptoms persist, seek medical advice.
Eye contact : Rinse with plenty of water. Seek medical attention.
Ingestion : Rinse mouth with plenty of water. Seek medical advice.
Inhalation : Take person to fresh air. If necessary, seek medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : e.g. water, CO2, foam, powder, sand

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : See section 8.
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.

7. HANDLING AND STORAGE

Handling

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

Storage

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Values

| Components | CAS-No. | Values | Type | Revision Date | Basis |
|-------------|---------|----------|------|---------------|----------|
| Acetic acid | 64-19-7 | 25 mg/m3 | TWA | 2002 | EH40 OES |
| | | 37 mg/m3 | STEL | 2002 | EH40 OES |
| | | 25 mg/m3 | TWA | 05 2001 | EU ELV |

Exposure controls

Engineering measures : Ventilation should be sufficient so that any applicable

Hand protection : occupational exposure limits are not exceeded.
: Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact use gloves made of the materials: butyl rubber (thickness \geq 0.36 mm, breakthrough time $>$ 480 min), nitrile rubber (thickness \geq 0.38 mm, breakthrough time $>$ 480 min) or neoprene (thickness \geq 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 goggles.

Hygiene measures : Observe normal precautions when handling chemicals. Avoid inhaling vapour. Keep away from foodstuffs, drinks and tobacco.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : Liquid
Colour : Colourless to yellowish
Odour : Smell of acetic acid

Safety data

pH (25 °C) : 1.3
Melting point/range : $<$ 0 °C
Boiling point/range : $>$ 100 °C
Flash point : 80 °C
Lower explosion limit : Not applicable
Upper explosion limit : Not applicable
Relative density (20 °C) : 1.104
Solubility/qualitative : Miscible with water at all ratios.
Relative vapour density : Not applicable

10. STABILITY AND REACTIVITY

Stability : The product is stable under normal conditions of storage and use.

Conditions and materials to avoid : Avoid contact with strong alkalis and oxidizing agents. Remove all chemicals and rinse the processing tanks thoroughly with water before using any cleansing products.

Hazardous decomposition products : None

11. TOXICOLOGICAL INFORMATION

R-phrase(s) : R22 Harmful if swallowed.
R34 Causes burns.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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
- 1-Phenyl-3-pyrazolidone : LD50 rat 475 mg/kg

Acute inhalation toxicity

- Diethylene glycol : LC50 rat > 5 mg/l/ 4 h

Acute dermal toxicity

- Diethylene glycol : LD50 rabbit 11,890 mg/kg
- Acetic acid : LD50 rabbit 1,110 mg/kg
- 1-Phenyl-3-pyrazolidone : LD50 guinea pig > 1,000 mg/kg

Other information

Hazard labelling of this preparation: see section 15.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Pending the development of criteria for evaluating impact of a chemical preparation, ecological information referring to the most important individual ingredients present in this preparation is given here merely as an indication. The effective environmental impact of this preparation should of course be assessed taking into account the actual concentration of each individual ingredient in this preparation.

Toxicity to fish

- Acetic acid : Species: Pimephales promelas (fathead minnow)
Dose: 88.00 mg/l/ 96 h
Species: Carassius auratus (goldfish)
Dose: 423.00 mg/l/ 24 h
- 1-Phenyl-3-pyrazolidone : Species: Pimephales promelas (fathead minnow)
Dose: 5.00 mg/l/ 96 h

Toxicity to daphnia

- Diethylene glycol : Species: Daphnia magna (water flea)
Dose: > 10,000.00 mg/l/ 24 h
- Acetic acid : Species: Daphnia magna (water flea)
Dose: 47.00 mg/l/ 24 h
- 1-Phenyl-3-pyrazolidone : Species: Daphnia magna (water flea)
Dose: 10.00 mg/l/ 96 h

Toxicity to algae

- Diethylene glycol : Species: Scenedesmus quadricauda (algae)
Dose: 2,700.00 mg/l
- 1-Phenyl-3-pyrazolidone : Species: Scenedesmus capricornutum (algae)
Dose: 10.00 mg/l/ 4 h

Toxicity to bacteria

- Diethylene glycol : Species: Pseudomonas putida (bacteria)
Dose: 8,000.00 mg/l

13. DISPOSAL CONSIDERATIONS

Environmental regulations, discharge of chemicals and washwater, waste treatment and disposal conditions of chemicals and their packaging may vary from one country to another. The relevant local regulations should be consulted. When this product or its contaminated packaging has to be removed as waste, contact an authorized waste contractor. May be discharged to drain if local regulations permit.

For waste resulting from this product, it is recommended to use European Waste Code : 09 01 01 (water-based developer and activator solutions).

14. TRANSPORT INFORMATION

ADR

UN-No : 2790
Proper shipping name : ACETIC ACID SOLUTION
Class : 8
Packing group : III
Classification Code : C3
Labelling No. : 8
Risk No. : 80

RID

UN-No : 2790
Proper shipping name : ACETIC ACID SOLUTION
Class : 8
Packing group : III
Classification Code : C3
Labelling No. : 8
Risk No. : 80

ADNR

UN-No : 2790
Proper shipping name : ACETIC ACID SOLUTION
Class : 8
Packing group : III
Classification Code : C3
Labelling No. : 8

IMO / IMDG

UN-No : 2790
Proper shipping name : ACETIC ACID, SOLUTION
Class : 8
Packing group : III
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 : III
Labelling No. : 8
Packing instruction (cargo aircraft) : 820

ICAO / IATA passenger and cargo aircraft

UN-No : 2790

Proper shipping name : Acetic acid solution
Class : 8
Packing group : III
Labelling No. : 8
Packing instruction (passenger aircraft) : 818

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label :

- CAS-No. : 111-46-6 Diethylene glycol
64-19-7 Acetic acid

Symbol(s) : C Corrosive
R-phrase(s) : R22 Harmful if swallowed.
R34 Causes burns.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s) : S23 Do not breathe gas/fumes/vapour/spray.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16. OTHER INFORMATION

Further information

Text of R-phrases referred to under headings 2 and 3:

R10 Flammable.
R22 Harmful if swallowed.
R34 Causes burns.
R35 Causes severe burns.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This Safety Data Sheet is compiled in accordance with European Directives and corresponding national legislation.

The information disclosed in this Safety Data Sheet is believed to be correct to the best of our current knowledge and experience. It only relates to the specific product designated herein and it may not be valid when said product is used in combination with any other material or in any process, unless specified in the text. This document aims to provide the necessary health and safety information of the product and is not to be considered a warranty or quality specification. It is the responsibility of the user to comply with local legislation relating to safety, health, environment and waste management.