ILFORD

MATERIAL SAFETY DATA SHEET
ILFOSTOP

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME
ILFOSTOP

PART No.
IP5707

SUPPLIER
ILFORD Imaging USA Inc., West 70 Century Road, Paramus, NJ 07653 USA; Tel USA: 201-265-6000
ILFORD Imaging Canada Ltd., 361 Steelecase Road West, Unit #4, Markham, Ontario, Canada, L3R 3V8, Tel Canada: 905-470-2855

CONTACT PERSON
Technical Service (USA), Terry Bevens (Canada)

EMERGENCY TELEPHONE
FOR MEDICAL EMERGENCY IN THE UNITED STATES AND CANADA CALL 1-800-842-5660
(PRODUCT MISUSE). FOR TRANSPORTATION EMERGENCY CALL CHEMTREC 1-800-424-9300.

2. COMPOSITION, INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS No.</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>BROMOCRESOL PURPLE</td>
<td>115-40-2</td>
<td>0-1 %</td>
</tr>
<tr>
<td>WATER</td>
<td></td>
<td>60-100 %</td>
</tr>
<tr>
<td>CITRIC ACID</td>
<td>77-92-9</td>
<td>10-30 %</td>
</tr>
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</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Colorless or pale yellow, odorless, weakly acid, water-based, non-flammable liquid.
Irritating to eyes and skin.

ACUTE EFFECTS

INHALATION
No specific health warnings noted.

INGESTION
May cause discomfort if swallowed.

SKIN
Irritating to skin.

EYES
Irritating to eyes.

CHRONIC EFFECTS

SENSITIZATION
No known information.

CARCINOGENICITY
This substance has no evidence of carcinogenic properties.

TERATOGENICITY
No known information.

MUTAGENICITY
No known information.
HEALTH WARNINGS
Severely irritating by prolonged or repeated exposure. Irritating. The liquid can irritate the skin.

ROUTE OF ENTRY
Ingestion. Skin and/or eye contact.

MEDICAL INFORMATION
May aggravate existing: Skin disorders and allergies, Pre-existing eye problems.

4. FIRST AID MEASURES

INHALATION
Move the exposed person to fresh air at once. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

EYES
Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with lots of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

SKIN
Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing.

INGESTION
DO NOT INDUCE VOMITING! Remove victim immediately from source of exposure. Rinse mouth thoroughly. Get medical attention immediately! Immediately give a couple of glasses of water, provided the victim is fully conscious.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
This material is not flammable. Use extinguishing media appropriate for surrounding fire.

UNUSUAL FIRE & EXPLOSION HAZARDS
No unusual fire or explosion hazards noted.

HAZARDOUS COMBUSTION PRODUCTS
Fire creates: Vapors/gases/fumes. Carbon dioxide (CO2).

6. ACCIDENTAL RELEASE MEASURES

SPILL CLEAN-UP PROCEDURES
Use appropriate protective clothing. Do not contaminate drainage or waterways. Absorb spill with non-reactive absorbent and place in non-reactive containers for disposal. Contain Spill. Use large quantities of water to flush small spills to sanitary sewer if local regulations permit. Do not flush to septic tank. See Section 13 for disposal considerations. Flush with plenty of water to clean spillage area. Do not let washing down water contaminate ponds or waterways. Inform Authorities if large amounts are involved.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS
Read and follow manufacturer's recommendations. Avoid spilling, skin and eye contact. Provide good ventilation.

STORAGE PRECAUTIONS
Keep in cool, dry, ventilated storage and closed containers. Store below 75°F. Keep in original container. Keep containers closed tightly.

STORAGE CRITERIA
Chemical storage.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

PROTECTIVE EQUIPMENT
ENGINEERING CONTROLS
Provide eyewash station and it is recommended that a safety shower is also available.

VENTILATION
Provide adequate general and local exhaust ventilation. Must not be handled in confined spaces without adequate ventilation. General room ventilation should provide for 10 - 15 room air changes per hour.

RESPIRATORS
Respiratory protection must be used if air concentration exceeds acceptable level. An acid gas/organic vapor cartridge should be used.

PROTECTIVE GLOVES
Use protective gloves made of: Neoprene, nitrile, polyethylene Butyl rubber. Use thin cotton gloves inside the rubber gloves if allergy risk.

EYE PROTECTION
Wear approved safety goggles.

PROTECTIVE CLOTHING
Wear appropriate clothing to prevent any possibility of skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE
Liquid.

COLOR
Orange.

ODOR
Odorless or no characteristic odor.

SOLUBILITY DESCRIPTION
Soluble in water. 100%.

BOILING POINT (°C, interval)
>100

MELT/FREEZ. POINT (°C, interval)
<0

DENSITY/SPECIFIC GRAVITY (g/ml)
1.16

VAPOUR PRESSURE
- Not Known

EVAPORATION RATE
1

pH-VALUE, CONC. SOLUTION
1

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<thead>
<tr>
<th>PARAMETER</th>
<th>TEST METHOD</th>
<th>TEST RESULT</th>
<th>UNIT</th>
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<tr>
<td>VOCs: SWISS ORD. 814.018</td>
<td></td>
<td>0 %</td>
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<tr>
<td>VOCs: EU</td>
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<tr>
<td>Vapour pressure &gt;0.01kPa</td>
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10. STABILITY AND REACTIVITY

STABILITY
Normally stable.

CONDITIONS TO AVOID
Avoid excessive heat for prolonged periods of time.

HAZARDOUS POLYMERIZATION
Will not polymerize.

MATERIALS TO AVOID
Avoid contact with other photographic solutions and/or cleaning compounds.

HAZARDOUS DECOMPOSITION PRODUCTS
High temperatures generate: Vapors/gases/fumes of: Carbon dioxide (CO2).
11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION
This chemical formulation has not been tested for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

TOXIC DOSE - LD 50
citric acid >5000 mg/kg (oral rat)

12. ECOLOGICAL INFORMATION

EC 50, 48 HRS, DAPHNIA, mg/l
1535 citric acid

ECOLOGICAL INFORMATION
Not regarded as dangerous for the environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS
 Unused and spent solutions may be allowed to be discharged to sanitary sewer by permit IF allowed by local regulations. Consult your local authority for advice. Waste may have to be pretreated before discharge. Consult local authorities before discharging any waste to sewer. Do not discharge to septic system. Waste that cannot be discharged to sewer may have to handled by a licensed hazardous waste contractor.

14. TRANSPORT INFORMATION

CLASSIFICATION COMMENT
To obtain additional information on packaging for shipment refer to the Code of Federal Regulations - CFR 49 and your carrier.

DOT HAZARD CLASS
No classification noted.

U.S. DOT HAZARD LABEL
No DOT label requirement noted.

SEA TRANSPORT NOTES
Not classified for sea transport

AIR TRANSPORT NOTES
Not classified for air transport

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS
SARA 302 CERCLA SARA 313
BROMOCRESOL PURPLE No

CLEAN AIR ACT

US STATE REGULATIONS

REGULATORY STATUS
TSCA: The ingredients of this product are on the TSCA Inventory.

ENVIRONMENTAL LISTING
No environmental listing noted.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHIMIS
CONTROLLED PRODUCT CLASSIFICATION

This Material Safety Data Sheet has been prepared in compliance with the Controlled Product Regulations. Canadian WHMIS Classification.

COMPONENT
BROMOCRESOL PURPLE

INVENTORIES

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16. OTHER INFORMATION

USER NOTES
ILFORD IMAGING USA INC. AND ILFORD IMAGING CANADA LTD. BELIEVE THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED ON CORRECT AND FACTUAL DATA. HOWEVER, NO EXPRESS OR IMPLIED GUARANTEE OR WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THIS INFORMATION. USE THIS INFORMATION ONLY TO SUPPLEMENT OTHER INFORMATION YOU HAVE GATHERED AND THEN MAKE AN INDEPENDENT DETERMINATION ABOUT THE COMPLETENESS AND SUITABILITY OF ALL INFORMATION TO INSURE THE PROPER USE AND DISPOSAL OF THIS PRODUCT AND THE HEALTH AND SAFETY OF EMPLOYEES AND CUSTOMERS.

INFORMATION SOURCES

REVISION DATE: 08 Jul 2002

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