



## MATERIAL SAFETY DATA SHEET

### ILFOTEC DDX DEVELOPER

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>TRADE NAME:</b>	ILFOTEC DDX DEVELOPER
<b>PART No.:</b>	IP911023X
<b>UN/NA (PIN) No.:</b>	0
<b>EMERGENCY TELEPHONE:</b>	FOR MEDICAL EMERGENCY IN THE UNITED STATES AND CANADA CALL 1-800-842-9660 (PRODUCT MISUSE). FOR TRANSPORTATION EMERGENCY CALL CHEMTREC 1-800-424-9300.
<b>SUPPLIER:</b>	ILFORD Imaging USA Inc West 70 Century Road, Paramus, NJ 07653 Tel: 201-265-6000
<b>CONTACT PERSON:</b>	Bryan Sammartino

#### 2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT NAME:	CAS No.:	CONTENTS :	EPA RQ:	TPQ:
POTASSIUM SULFITE	10117-38-1	30-60 %		
DIETHYLENEGLYCOL	111-46-6	5-10 %		
HYDROQUINONE	123-31-9	1-5 %		
1-PHENYL-4-METHYL-4-HYDROXYMETHYL-3-PYRAZOLIDONE	13047-13-7	0-1 %		
DIETHYLENETRIAMINE PENTAACETIC ACID-NA5	67-43-6	1-5 %		
SODIUM TETRABORATE	1330-43-4	1-5 %		
BORIC ACID	10043-35-3	1-5 %		

#### 3. HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW:

Colorless or pale yellow, odorless, weakly alkaline, water-based, non-flammable liquid. Contains hydroquinone.

Irritating to respiratory system and skin. May cause sensitisation by skin contact.

##### ACUTE EFFECTS:

**INHALATION:** May cause irritation to the respiratory system.

**INGESTION:** May cause discomfort if swallowed.

**SKIN:** Irritating to skin. May cause sensitisation by skin contact. May cause allergic contact eczema.

**EYES:** No specific health warnings noted.

##### CHRONIC EFFECTS:

**HEALTH WARNINGS:**

Prolonged or repeated exposure may cause severe irritation. May cause skin irritation/eczema. May cause sensitisation by skin contact. May cause irritation to the respiratory system. Liquid may irritate the skin. May cause allergy. May cause hypersensitivity.

**ROUTE OF ENTRY:**

Inhalation. Ingestion. Skin and/or eye contact.

**MEDICAL INFORMATION:**

May aggravate existing: Chronic respiratory and obstructive airway diseases. Skin disorders and allergies.

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**4. FIRST AID MEASURES**

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

**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.

**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.

**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.

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**5. FIRE FIGHTING MEASURES**

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**EXTINGUISHING MEDIA:**

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

**HAZARDOUS COMBUSTION PRODUCTS:**

Sulfur dioxide.

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**6. ACCIDENTAL RELEASE MEASURES**

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**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.

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**7. HANDLING AND STORAGE**

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**HANDLING PRECAUTIONS:**

Avoid spilling, skin and eye contact. Provide good ventilation. Persons with impaired lung functions should not handle this preparation. Read and follow manufacturer's recommendations.

**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

<b>INGREDIENT NAME:</b>	<b>CAS No.:</b>	<b>OSHA PEL:</b>	<b>ACGIH TLV:</b>	<b>OTHER:</b>	<b>UNITS:</b>
SODIUM TETRABORATE	1330-43-4	<b>TWA: STEL:</b>	<b>TWA: STEL:</b>	<b>TWA: STEL:</b>	mg/m3
			1		

### PROTECTIVE EQUIPMENT:



### ENGINEERING CONTROLS:

Provide eyewash station and safety shower.

**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: Rubber (natural, latex). Neoprene. Polyethylene.

### EYE PROTECTION:

Wear approved safety goggles.

### PROTECTIVE CLOTHING:

Wear appropriate clothing to prevent any possibility of skin contact. Wear rubber apron.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE/PHYSICAL STATE:</b>	Liquid. Water soluble.	
<b>COLOR:</b>	Colorless.	
<b>ODOR:</b>	No characteristic odor.	
<b>SOLUBILITY DESCRIPTION:</b>	Soluble in water.	
<b>BOILING POINT (°F, interval):</b>	212	<b>PRESSURE:</b> 760mmHg
<b>DENSITY/SPECIFIC GRAVITY (g/ml):</b>	1.31	<b>TEMPERATURE (°F):</b> 68
<b>pH-VALUE, CONC. SOLUTION:</b>	8.7	

## 10. STABILITY AND REACTIVITY

**STABILITY:** Normally stable.

### CONDITIONS TO AVOID:

Avoid contact with acids. 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:

Irritating gases/vapors/fumes of: Sulfur dioxide.

## 11. TOXICOLOGICAL INFORMATION

**TOXIC DOSE - LD 50:** hydroquinone 320; boric acid 2660; Dimezone S 1007; Sodium tetraborate 2660 mg/kg (oral rat)

**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.

**12. ECOLOGICAL INFORMATION**

**LC 50, 96 HRS, FISH, mg/l:** 0.1 hydroquinone; 5600 boric acid; >1 Dimezone S; >300 DTPA; 104 sodium tetraborate  
**EC 50, 48 HRS, DAPHNIA, mg/l:** 226 boric acid; 7.1 Dimezone S; >10 DTPA; 141 sodium tetraborate  
**IC 50, 72 HRS, ALGAE, mg/l:** 1.0 hydroquinone; 158 sodium tetraborate

**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 be handled by a licensed hazardous waste contractor.

**14. TRANSPORT INFORMATION**

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

**U.S. DOT:**

**UN/NA No.:** 0  
**U.S. DOT HAZARD LABEL:** No DOT label requirement noted  
**U.S. DOT CLASS:** No classification noted.  
**INFORMATION ON ROAD TRANSPORT:** Not classified for road transport

**SEA TRANSPORT:**

**INFORMATION ON SEA TRANSPORT:** Not classified for sea transport

**AIR TRANSPORT:**

**INFORMATION ON AIR TRANSPORT:** Not classified for air transport

**15. REGULATORY INFORMATION****REGULATORY STATUS OF INGREDIENTS:**

<b>NAME:</b>	<b>CAS No:</b>	<b>TSCA:</b>	<b>CERCLA:</b>	<b>SARA 302:</b>	<b>SARA 313:</b>	<b>DSL(CAN):</b>
POTASSIUM SULFITE	10117-38-1	Yes	No	No	No	
DIETHYLENEGLYCOL	111-46-6	Yes	No	No	No	Yes
1-PHENYL-4-METHYL-4-HYDROXYMETHYL	13047-13-7	Yes	No	No	No	Yes
DIETHYLENETRIAMINE PENTAACETIC ACID-NA5	67-43-6	Yes	No	No	No	Yes
SODIUM TETRABORATE	1330-43-4	Yes	No	No	No	Yes

**US FEDERAL REGULATIONS:**

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

**ENVIRONMENTAL LISTING:** Hydroquinone: Clean Air Act, S.111 (40 CFR 60-EPA). IARC - Animal carcinogen. IARC-Int. Agency for Cancer Research. DOT Hazardous Mat. Transp. Act (49 CFR). NTP-Annual Plan (DHHS). NIOSH Criteria Documents. IRPTC-International Register of Potentially Toxic Chemicals (UNEP). OSHA Chemical Hazard Communic. Std. - Air Contaminants (29CFR1910). ACGIH Threshold Limit Values. EPA Reportable & Threshold Quantities. SARA Section 302, Extremely Hazardous Substances. SARA Section 313, Toxic Chemicals. SARA Title III Consolidated Chemical List (302, CERCLA, 313, RCRA).

**STATE REGULATIONS:**  
**STATE REGULATORY STATUS:** Florida Hazardous Substance List Massachusetts Extraordinarily Hazardous Substances List Massachusetts Right-to-Know. New Jersey Right-to-Know. NJ Environmental Hazardous Substances List NJ Special Hazardous Substances List Pennsylvania Right-to-Know.

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## 16. OTHER INFORMATION

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**USER NOTES:** ILFORD IMAGING USA INC. BELIEVES 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:** European Photographic Chemical Industry Code of Practice For Classification And Labelling Material Safety Data Sheet, Misc. manufacturers. Safeware Quasar Ltd USA Regulatory Information ANSI Z400.1-1998 Material Safety Data Sheets - Preparation

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