

# LITHMATIC DEVELOPER PART A

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Photo Systems, Inc.

7200 Huron River Dr., Dexter, MI 48130

Product Name: **LITHMATIC DEVELOPER**

Product Number: **160010, 160250, 160400**

**Product Use:** Photographic developer.

**Customer Information Phone Number:**

1-734-424-9625

**CHEMTREC®: 24 Hour Emergency Transport Phone Number: 1-800-424-9300**

Date Reviewed: 7/15/2015

Rev. 3.0

## 2. HAZARDOUS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### Health hazard

Acute toxicity, Oral (Category 4), H302

Causes severe skin burns and eye damage (Skin Corr. 1B) H314

Serious eye damage (Category 1), H318

Skin sensitization (Category 2), H317

Acute toxicity, Inhalation (Category 3), H331

Germ cell mutagenicity (Category 2), H341

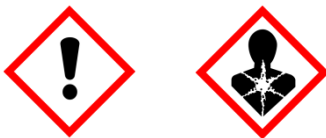
Carcinogenicity (Category 2), H351

Harmful to aquatic life (Category 3), H402

Chronic aquatic toxicity (Category 1), H410

### 2.2 GHS Label elements, including precautionary statements

#### Pictogram



**Signal Word: DANGER**

Hazard statement(s)

H302	Harmful if swallowed
H317	May cause allergic skin reaction
H318	Causes severe eye damage
H335	May cause respiratory irritation
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer
H402	Harmful to aquatic life.
H410	Very toxic to aquatic life

## Precautionary statement(s)

P201	Obtain special instructions before use
P260	Do not breathe mist
P264	Wash skin thoroughly after handling
P270	Do not eat, drink, or smoke when using this product
P273	Avoid release into the environment
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312	IF SWALLOWED; call a POISON CENTER or doctor/physician Do NOT induce vomiting
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse
P391	Collect spillage
P501	Dispose of contents to an approved waste disposal plant.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS	OHSA PEL	ACGIH TLV	Weight %
TRIETHYLENE GLYCOL	112-27-6	N.E.	100 mg/m <sup>3</sup> aerosol	20-30
HYDROQUINONE	123-31-9	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	10-15
SODIUM METABISULFITE	7681-57-4	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	10-15
FORMALDEHYDE	50-00-0	2 mg/m <sup>3</sup> C	0.37 mg/m <sup>3</sup> , A <sup>2</sup> C	10-15

## 4. FIRST AID MEASURES

## 4.1 Description of first aid measures

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

**Inhalation:** If symptomatic, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion:** If swallowed, give victim a glass of water or milk. Do not induce vomiting. Only induce vomiting at the instruction of medical personnel. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

**Skin Contact:** Flush skin with plenty of water and wash with a non-alkaline skin cleaner. Wash contaminated clothes before reuse. Get medical attention if irritation develops.

**Aggravated Medical Conditions:** Individuals who are under the care of a physician or have chronic ailments, should consult a physician before using this product. May cause severe allergic reaction in some asthmatics and sulfite sensitive individuals.

Supplemental Health Information: Formaldehyde is listed by IARC, NTP, and OSHA as carcinogen.

## 5. FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Nonflammable. Use Water spray, carbon dioxide, dry chemical, or alcohol foam.

### 5.2 Special Hazards arising from substance or mixture

Fire or excessive heat may cause production of hazardous decomposition products.

Combustion Products: Carbon dioxide, carbon monoxide, formaldehyde, and oxides of sulfur.

### 5.3 Advise for firefighters

Wear self-contained breathing NIOSH/MSHA approved apparatus and protective clothing to prevent contact with skin and eyes. Use water to keep containers cool.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment. Avoid contact with skin and eyes. Stop the spillage. Dike the spill. Prevent liquid from entering sewers, waterways or low areas. Absorb spillage in inert material. Soak up with vermiculite, sawdust, sand, or other absorbent material. Remove non-usable solid material and/or contaminated soil for disposal in an approved and permitted landfill.

### 6.2 Environmental precautions

Prevent liquid from entering sewers, waterways or low areas. Discharge to sewer requires approval of permitting authority and may require pre-treatment.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Store in a cool, dry, well-ventilated area. Keep containers closed. Do not store or consume food, drink, or tobacco where they may become contaminated with this material.

### 7.2 Conditions for safe storage, including any incompatibles

Do not store with incompatible materials. Do not store with strong acids. All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Triple rinse before disposal. Dispose of in a licensed facility.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

### 8.1 Control parameters

See Section 3.

### 8.2 Exposure controls

Use good personal hygiene when handling this product. Avoid contact with skin and eyes. Wash hands after use, before smoking, or using the toilet. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### Personal protective equipment

**Eye Protection:** Safety glasses with side shields (or goggles).

**Respiratory Protection:** When this product is used in the intended way, no respiratory protection is anticipated to be necessary if airborne concentrations are maintained below exposure limits. Otherwise, an approved respirator should be worn of the HEPA type.

**Skin protection:** Nitrile rubber, Latex, or neoprene waterproof gloves are recommended.

**Body protection:** Rubber or plastic apron.

**Respiratory protection:** Local exhaust ventilation is recommended. Good ventilation of 10 room volumes per hour. Ventilation rates should match conditions of use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance And Odor: Light straw color; no odor.

Solubility In Water: Complete

Boiling Point: 100° C

Specific Gravity: 1.22

Evaporation Rate: Not established

Melting Point: Not applicable

Freezing Point: Not established

Vapor Density: Not established

Percent Volatile: 48.04

Ph: 7.9

Pounds Per Gallon: 10.16

Molecular Weight: Not applicable

Vapor Pressure: Not established

V.O.C. is 92.4 g/L or 7.67% or 0.78 lb. /gal.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable

### 10.2 Chemical stability

Conditions To Avoid: None

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

High temperatures.

### 10.5 Incompatible Materials

Strong acids, strong bases, and strong oxidizing agents.

### 10.6 Decomposition Products

May produce sulfur dioxide under acid conditions (pH < 4), and formaldehyde

**11. TOXICOLOGICAL INFORMATION****11.1 Information of toxicological effects****Component information*****Hydroquinone 123-31-9*****Acute toxicity:**

Oral LD-50 (rat)

367.3 mg/kg (OECD Test Guidance 401)

Dermal LD-50 (rabbit)

&gt;2,000 mg/kg (OECD Test Guidance 402)

Inhalation: no data

**Skin irritation: no data****Eye irritation: no data****Respiratory or Skin Sensitization** (in vivo assay – mouse (OECD Test Guidance 429)

May cause sensitization by skin contact.

May cause allergic skin reaction.

**Carcinogenicity/mutagenicity:** none***Sodium Metabisulfite 7681-57-4*****Acute toxicity:**

LD50 Oral – rat – 1,540 mg/kg

Inhalation: No data available

LD50 Dermal – Rat - &gt;2,000 mg/kg

**Skin irritation:** No data available**Eye irritation:** Rabbit – Risk of serious damage to eyes**Respiratory or Skin Sensitization**

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

**Carcinogenicity/mutagenicity:** none***Formaldehyde Solution 50-00-0*****Acute toxicity:**

Oral LD50 (rat): 500 mg/kg

Inhalation LD-50 (rat): 0.578 mg/l – 4h

Dermal: no data available

**Skin irritation:**

No data available

**Eye irritation:**

No data available

**Respiratory or Skin Sensitization**

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

**Carcinogenicity/mutagenicity:** A2 – suspected carcinogen (ACGIH); 0.5 ppm Action Level: 0.75 ppm TWA (OSHA) irritant and potential cancer hazard; Potential occupational carcinogen (NIOSH); possible Select carcinogen (NTP); and carcinogenic to humans (IARC).***Triethylene Glycol 112-27-6***

**Acute toxicity:**

Oral LD50 (rat): 17,000 mg/kg

Inhalation: Respiratory disorder

Dermal LD50: - rabbit - &gt; 22,500 mg/kg

**Skin irritation:**

Mild skin irritation to humans.

**Eye irritation:**

Mild eye irritation to rabbits.

**Respiratory or Skin Sensitization**

No data available.

**Carcinogenicity/mutagenicity:** None**12. ECOLOGICAL INFORMATION****Component information*****Triethylene Glycol 112-27-6*****12.1 Toxicity**

Toxicity to fish LC50 – Leuciscus indus (Golden orfe) &gt; 100 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates EC50 – Daphnia magna (Water flea) – 46,500 mg/l - 48 h

Toxicity to algae No data available

**12.2 Persistence and degradability**

Biodegradability Result: &gt; 70% - readily biodegradable

**12.3 Bioaccumulative potential**

Does not bioaccumulate (log Pow &lt;=4)

**12.4 Mobility in soil**

No data available

**12.5 Result of PBT and vPvB assessment**

Assessment not available as chemical assessment not required/not conducted

**12.5 Other adverse effects**

No data available

***Sodium Metabisulfite 7681-57-4*****12.1 Toxicity**

Toxicity to fish LC50 – Oncorhynchus mykiss (rainbow trout) – 150-220 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates EC50 – Daphnia magna (Water flea) – 89 mg/l - 24 h

Toxicity to algae IC50 – Desmodesmus subspicatus (green algae) – 48 mg/l – 72 h

## 12.2 Persistence and degradability

No data available

## 12.3 Bioaccumulative potential

No data available

## 12.4 Mobility in soil

No data available

## 12.5 Result of PBT and vPvB assessment

Assessment not available as chemical assessment not required/not conducted

### ***Hydroquinone 123-31-9***

## 12.1 Toxicity

Toxicity to fish LC50-Oncorhynchus mykiss (rainbow trout) – 0.4 -0.1 mg/l – 96h

Toxicity to daphnia and other aquatic invertebrates LC50 – Daphnia magna (Water flea) – 0.13 – 48h

Toxicity to algae EC50 – Pseudokirchneriella subcapitata (green algae) -0.335 mg/l – 72 h

## 12.2 Persistence and degradability

Biodegradability Biotic/Aerobic – exposure time 14d  
Result: 86% - Readily biodegradable

## 12.3 Bioaccumulative potential

Bioaccumulation Leuciscus idus (golden orfe) – 3d – 50 µg/l  
Bioconcentration factor (BCF):40

## 12.4 Mobility in soil

No data available

## 12.5 Result of PBT and vPvB assessment

Assessment not available as chemical assessment not required/not conducted

## 12.5 Other adverse effects

Very toxic to aquatic life with long lasting effects.

### ***Formaldehyde Solution 50-00-0***

Components of this product are hazardous to aquatic life. This product is biodegradable under aerobic and anaerobic conditions.

## 12.1 Toxicity

Toxicity to fish LC50- Pimepales promelas -24.1 mg/l – 96h

## 12.2 Persistence and degradability

No data available

## 12.3 Bioaccumulative potential

No data available

## 12.4 Mobility in soil

No data available

## 12.5 Result of PBT and vPvB assessment

Assessment not available as chemical assessment not required/not conducted

## 12.5 Other adverse effects

None

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

## 14. TRANSPORT INFORMATION

### DOT (US)

Not regulated

## 15. REGULATORY INFORMATION

### SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:

	Cas#	Revision Date
Formaldehyde	50-00-0	2007-07-01
Hydroquinone	123-31-9	2007-07-01
Methanol	67-56-1	2007-07-01

### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

	Cas#	Revision Date
Formaldehyde	50-00-0	2007-07-01
Hydroquinone	123-31-9	2007-07-01
Methanol	67-56-1	2007-07-01

### SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

### California Prop 65 Components

This product contains chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm. Methanol (Cas # 67-56-1) a component of the Formadehyde Solution and Formaldehyde (Cas# 50-00-0) are listed.

### TSCA

All ingredients in this finished product are listed on the EPA TSCA INVENTORY.



## SCAQMD Rule 443.1

Photochemically Reactive: No  
Maximum Grams of VOC per Liter: 92.4 gm/L  
Vapor Pressure: 18 mm Hg@ 20 Degrees C

## 16. OTHER INFORMATION

### Full text of H-statements referred to under sections 2 and 3.

Acute toxicity, Oral (Category 4), H302  
Causes severe skin burns and eye damage (Skin Corr. 1B) H314  
Serious eye damage (Category 1), H318  
Skin sensitization (Category 2), H317  
Acute toxicity, Inhalation (Category 3), H331  
Germ cell mutagenicity (Category 2), H341  
Carcinogenicity (Category 2), H351  
Harmful to aquatic life (Category 3), H402  
Chronic aquatic toxicity (Category 1), H410

### HMIS RATING

Health: 2  
Chronic Health Hazard: \*  
Flammability: 0  
Physical Hazard: 0

OTHER ADDITIONAL INFORMATION: The information contained herein is based on the data available to us and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for the injuries from the use of the product described herein.