

# MQ-19 High Contrast Film Developer

## Material Safety Data Sheet

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Version: 1.0



### SECTION 1: Identification

#### 1.1. Identification

Product form : Solid powder  
Substance name : MQ-19 High Contrast Film Developer  
Chemical name : N/A - Mixture  
CAS-No. : N/A - Mixture  
Brand : Flic Film Inc.

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : For photographic use only.  
Recommended use : Photographic chemicals  
Restrictions on use : Not for food, drug or household use

#### 1.3. Supplier

Flic Film Inc.  
10B Morrison Road, Longview, Alberta,  
Canada T0L 1H0  
T +1-403-982-4272

#### 1.4. Emergency telephone number

Emergency number : +1-403-982-4272

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture GHS classification

Based on hydroquinone content

Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Germ cell mutagenicity Category 2	H341	Suspected of causing genetic defects
Carcinogenicity Category 2	H351	Suspected of causing cancer
Hazardous to the aquatic environment - Acute Hazard Category 1	H400	Very toxic to aquatic life

#### 2.2. GHS Label elements, including precautionary statements

##### GHS labelling

Hazard pictograms (GHS) :



GHS05



GHS07



GHS08



GHS09

Signal word (GHS) :

Danger

Hazard statements (GHS) :

H302 - Harmful if swallowed  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H341 - Suspected of causing genetic defects  
H351 - Suspected of causing cancer  
H400 - Very toxic to aquatic life

Precautionary statements (GHS) :

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P261 - Avoid breathing dust  
P264 - Wash exposed skin thoroughly after handling

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P270 - Do not eat, drink or smoke when using this product  
P272 - Contaminated work clothing should not be allowed out of the workplace  
P273 - Avoid release to the environment  
P280 - Wear protective gloves, eye protection  
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a poison center or doctor/physician  
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention  
P363 - Wash contaminated clothing before reuse  
P391 - Collect spillage  
P405 - Store locked up  
P501 - Dispose of contents/container to comply with local, state and federal regulations

### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None under normal conditions.

### 2.4. Unknown acute toxicity (GHS)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Substance type : Multi-constituent

Name	Product identifier	% w/w
Metol	(CAS-No.) 55-55-0	1-2
Hydroquinone	(CAS-No.) 123-21-9	5-10
Sodium sulfite	(CAS-No.) 7757-83-7	50-60
Sodium carbonate	(CAS-No.) 497-19-8	30-40
Potassium bromide	(CAS-No.) 7758-02-3	1-5

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Suspected of causing cancer.

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Suspected of causing genetic defects.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

### 4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : N/A

### 5.2. Specific hazards arising from the chemical

No additional information available

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### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

- Protective equipment : Safety glasses. Protective clothing. Gloves. Dust mask.
- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust. Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use.
- Incompatible products : Acids and oxidizing agents.
- Incompatible materials : Direct sunlight.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Component	Occupational Exposure Limits
Metol	No additional information identified.
Hydroquinone	ACGIH TWA 1mg/m <sup>3</sup> / OSHA PEL(TWA) 2mg/m <sup>3</sup> / US IDLH 50mg/m <sup>3</sup> / NIOSH REL (ceiling) 2mg/m <sup>3</sup>
Sodium sulfite	No additional information identified.
Sodium carbonate	No additional information identified.
Potassium bromide	No additional information identified.

### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation. Material should be handled using local exhaust ventilation (LEV) or laboratory hood whenever possible.

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### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Chemical resistant apron. Gloves. Face shield. Protective clothing. Safety glasses.



#### Hand protection:

Wear protective gloves

#### Eye protection:

Chemical goggles or safety glasses

#### Respiratory protection:

Respiratory protection not required in normal conditions

#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid.
Appearance	: Crystalline / powdery solid.
Colour	: Colourless to white. May discolour on exposure to light.
Odour	: None.
Odour threshold	: No data available.
pH	: No data available.
Melting point	: No data available.
Freezing point	: No data available.
Boiling point	: No data available.
Flash point	: No data available.
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available.
Relative vapour density at 20 °C	: No data available.
Relative density	: No data available.
Specific gravity / density	: No data available.
Molecular mass	: N/A - Mixture.
Solubility	: Soluble in water.
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available.
Viscosity, kinematic	: No data available.
Viscosity, dynamic	: No data available.
Explosion limits	: No data available.
Explosive properties	: No data available.
Oxidizing properties	: No data available.

### 9.2. Other information

No additional information available

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

May discolour on exposure to air. May discolours on exposure to light.

#### 10.3. Possibility of hazardous reactions

Do not add acids to MQ-19 Film Developer, since it may generate carbon dioxide and/or sulfur dioxide. Sulfur dioxide is an irritating and corrosive gas.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

#### 10.5. Incompatible materials

Strong acids or oxidizing agents.

#### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Nitrogen oxides. Sulfur dioxide.

### 11.1. Information on toxicological effects

Likely routes of exposure : Inhalation; Skin and eye contact

Acute toxicity : Oral: Harmful if swallowed.

#### Quintol mixture

LD50 oral rat	No data available.
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ATE US (oral)	No data available.
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Skin corrosion/irritation : Not classified.

Serious eye damage/irritation : Not classified.

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Hydroquinone is suspected of causing genetic defects.

Carcinogenicity : Hydroquinone is suspected of causing cancer.

#### Quintol mixture

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

#### 12.2. Persistence and degradability

#### Quintol mixture

Persistence and degradability	Not established.
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### 12.3. Bioaccumulative potential

#### Quintol mixture

Bioaccumulative potential	Not established.
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### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

: No transport restrictions for small packages, i.e. these are small quantity kits and not regulated.

In accordance with DOT Transport document description

: UN3077 Environmentally hazardous substances, solid, n.o.s., 9, III

UN-No.(DOT)

: UN3077

Proper Shipping Name (DOT)

: Environmentally hazardous substances, solid, n.o.s.

Transport hazard class(es) (DOT)

: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Packing group (DOT)

: III - Minor Danger

Hazard labels (DOT)

: 9 - Class 9 (Miscellaneous dangerous materials)



Dangerous for the environment

: Yes

Marine pollutant

: Yes



DOT Packaging Non Bulk (49 CFR 173.xxx)

: 213

DOT Packaging Bulk (49 CFR 173.xxx)

: 240

DOT Symbols

: G - Identifies PSN requiring a technical name

