Flic Quick Fixer

Material Safety Data Sheet

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SECTION 1: Identification

1.1. Identification

Product form : White-yellow liquid

Substance name : C41 Fixer

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 1HO
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 ammonium thiosulfate content

GHS Classification

Skin irritation	:	Category 4
Eye irritation	:	Category 2A
Carcinogenicity	:	Not identified
Specific target organ toxicity		
- repeated exposure	:	Category 3 (Respiratory System)

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS) :

GHS07

Signal word (GHS) : Warning

Hazard statements (GHS) : H302 - Harmful if swallowed.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.

Precautionary statements (GHS) : P271 - Use only outdoors or in a well-ventilated area.
: P261 - Avoid breathing mist or vapor.
: P264 - Wash thoroughly after handling.
: P301+P312 - If swallowed: Call a poison center/doctor if you feel unwell.
: P304+P340 - If inhaled: Remove person to fresh air and keep 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.
: P312 - Call a poison center/doctor if you feel unwell.
: P330 - Rinse mouth.
: P337+P313 - If eye irritation persists: Get medical advice/attention.

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	% $^{w}/_{w}$
Ammonium thiosulfate	(CAS-No.) 7783-187-8	86-95
Sodium sulfite	(CAS-No.) 7757-83-7	1-5
Sodium metabisulfite	(CAS-No.) 7681-57-4	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). Asthmatics or hypersensitive individuals may experience difficult breathing.

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest. If breathing is difficult, give oxygen. Get medical attention

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 : Respiratory tract irritation. Upper airway irritation, may cause cough, redness of mouth and upper airways.

Symptoms/effects after skin contact : May cause skin irritation.

Symptoms/effects after eye contact : May causes severe eye irritation and redness to the eye lids, conjunctiva. There is potential for permanent and severe eye damage if not treated immediately.

Symptoms/effects after ingestion : Swallowing a small quantity may cause severe gastrointestinal irritation with nausea, abdominal pain, faintness, weakness, vomiting and diarrhea.

4.3. Immediate medical attention and special treatment, if necessary

Obtain immediate medical assistance, if experience wheezing, chest tightness.

SECTION 5: Fire-fighting measures

Negligible fire hazard due to non combustible properties of the mixture.

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing medium as appropriate for the surrounding fire.

Unsuitable extinguishing media : Not identified.

5.2. Specific hazards arising from the chemical

Oxides of sodium. Sulfur dioxide. Nitrogen oxides. Heating this product will evolve ammonia.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Generally, 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

Avoid contact with skin and eyes. Avoid breathing vapours. Wash thoroughly after handling. Wear correct personal protective equipment.

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

This material is harmful to aquatic life. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Spills : Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering the area. Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

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 dust build up. Avoid breathing dust. Avoid contact with skin and eyes. 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. Store in a cool, dry, well-ventilated area.
Incompatible products : Strong acids. Strong alkali and bases. Strong oxidizing agents.
Incompatible materials : Store in a dry, cool and well-ventilated place. Store away from other materials

8.1. Control parameters

Component	Occupational Exposure Limits
Ammonium thiosulfate	No additional data available.
Sodium sulfite	No additional data available.
Sodium metabisulfite	OSHA TWA: 5mg/m³

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.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

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

Hand protection:

Wear protective gloves

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

Wear respiratory protection.

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	: Liquid.
Appearance	: Liquid.
Colour	: White-Yellow.
Odour	: Ammoniacal smell.
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	: Easily soluble in cold water, hot 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
Hygroscopic	: No

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The mixture is stable.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness. Strong acids can react with the sodium sulfite or sodium metabisulfite to liberate sulfur dioxide which is a highly irritating and corrosive gas.

10.4. Conditions to avoid

Direct sunlight. Possible emission of gaseous decomposition products may lead to a dangerous pressure build. Elevated temperatures. Temperatures above 120°F (49°C) and below 60°F (15°C).

10.5. Incompatible materials

Strong acids. Strong alkalies and bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Heating this product will evolve ammonia. Heating to dryness will produce ammonia, oxides of sodium and oxides of sulfur.

11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Inhalation; Skin and eye contact.

Acute toxicity : Oral: Harmful if swallowed.

C41 Fixer	
Ammonium thiosulfate	LD50 oral rat: 1,950 - 2,890 mg/kg / Inhalation-Rat LC50: > 2,260 mg/m3 (4 h).
Sodium sulfite	LD50 oral rat: 2,610 mg/kg / LC50 Inhalation rat: > 5.5 mg/l (4h).
Sodium metabisulfite	LD50 oral rat = 1,310 mg/kg / Not listed

Skin corrosion/irritation : Causes skin irritation, redness.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : May cause an allergic skin reaction. Sodium sulfite or sodium metabisulfite may cause severe or deadly allergic reactions in some asthmatics and sulfite sensitive individuals. Possible signs and symptoms of allergic reactions include bronchoconstriction, sweating, flushing, hives, rapid heart rate, decreased blood pressure and anaphylaxis. Repeated or prolonged contact may cause dermatitis.

Germ cell mutagenicity : Not classified as a mutagen.

Carcinogenicity : Not classified as a carcinogen.

Reproductive toxicity : Not classified.

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Based on available data, the classification criteria are not met. Harmful if swallowed.

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : The substance or mixture is not classified as specific target organ toxicant.

Symptoms/effects after skin contact : May cause skin irritation and/or dermatitis.

Symptoms/effects after eye contact : May cause irreversible 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 : Harmful to aquatic life.

12.2. Persistence and degradability

C41 Fixer	
Persistence and degradability	The material is inorganic and not subject to biodegradation and not to persist in the environment.

12.3. Bioaccumulative potential

C41 Developer - Part A mixture	
Bioaccumulative potential	This material is believed not to bioaccumulate..

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 : Not applicable.

SECTION 15: Regulatory information

Canadian National Regulations

Ammonium thiosulfate
Listed on the Canadian DSL (Domestic Substances List)
Sodium sulfite
Listed on the Canadian DSL (Domestic Substances List)
Sodium metabisulfite
Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: Other information

Full text of H-phrases:

H302 - Harmful if swallowed.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.