

# Material Safety Data Sheet ECN-2 Kit

## Pre-Bath

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: FLIC FILM INC Product Name: ECN2 PreBath Powder

Date Prepared: 06/01/2021

Customer Information Phone Number: 1-403-982-4272

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name - Weight - CAS

SODIUM SULFATE (Anhydrous) 70-90% 7757-82-6

SODIUM BORATE (Dehydrated) 15-25% 1303-96-4

SODIUM HYDROXIDE (Anhydrous) 0.1-2% 1303-96-4

### 3. HAZARDOUS IDENTIFICATION

#### POTENTIAL HEALTH EFFECTS

Eye Contact: Causes severe irritation.

Inhalation: May cause irritation mucous membranes and to upper respiratory tract.

Ingestion: May cause irritation to gastrointestinal track. Some asthmatics or sulfite-sensitive persons may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness, and diarrhea.

Skin Contact: May cause irritation or reddening.

Signs And Symptoms Of Exposure: Eye irritation, respiratory irritation, dermatitis, difficulty breathing, abdominal pain, skin irritation, mucus membrane irritation, coughing, nausea, and diarrhea.

### 4. FIRST AID MEASURES

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

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

Ingestion: Do not induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Skin Contact: Immediately wash skin with plenty of soap. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Aggravated Medical Conditions: Asthmatics or hypersensitive individuals may experience difficult breathing.

Supplemental Health Information: None of the components in this product is listed by IARC, NTP, or OSHA as carcinogen.

Irritant (skin and eye)

Skin Sensitizer

Acute Toxicity (harmful)

Narcotic Effects

Respiratory Tract Irritant

Skin Corrosion/Burns

Eye Damage

Corrosive to Metals



## **5. FIRE FIGHTING MEASURES**

### **FLAMMABLE PROPERTIES**

Flash Point: Nonflammable Flash Point Method: Not applicable Auto-ignition: Not applicable

LEL: Not applicable UEL: Not applicable

Extinguishing Media: Any applicable to the primary cause of the fire. Flood with water.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual Fire And Explosion Hazards: None known.

Combustion Products: None known.

## **6. ACCIDENTAL RELEASE MEASURES**

Steps To Be Taken In Case Material Is Spilled Or Released: Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment during cleanup. Sweep up. For working solution dike the spill. Prevent liquid from entering sewers, waterways or low areas. Soak up with sawdust, sand, oil dry, or other absorbent material. Absorb spillage in inert material. Remove non-usable solid material and/or contaminated soil for disposal. Discharge to sewer may require approval of local authorities. Contaminated surfaces may be cleaned using water.

## **7. HANDLING AND STORAGE**

Precautions To Be Taken In Handling And Storage: Store in a cool, dry, well ventilated area. Keep containers closed. Do not store with incompatible materials. Do not store or consume food, drink, or tobacco where they may become contaminated with this material.

Other Precautions: All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse containers. Triple rinse before disposal.

## **8. EXPOSURE CONTROL / PERSONAL PROTECTION**

### **PERSONAL PROTECTIVE EQUIPMENT**

Respiratory Protection: When this product is used in the intended way, no respiratory protection is anticipated to be necessary. In cases where there is a likelihood of inhalation exposure to the powder (dust), wear a NIOSH approved dust respirator.

Ventilation: Avoid breathing vapors or mist from working solution. Local exhaust ventilation is recommended. Ventilation must be adequate to keep hazardous ingredients below their exposure limits.

Protective Gloves: Impervious gloves and aprons recommended.

Eye Protection: Chemical safety glasses with side shields (or goggles).

Other Protective Clothing or Equipment: Rubber or plastic apron.

Work/Hygienic Practices: Use good personal hygiene when handling this product. Wash hands after use, before smoking or using the toilet.

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Guidelines: See Section 2.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance And Odor: White powder, no odor. Solubility In Water: Complete

Boiling Point: Not applicable Vapor Pressure: Not applicable Specific Gravity: Not applicable

Melting Point: N.E. Freezing Point: N.E. Percent Volatile: 0

Evaporation Rate: Not applicable Ph: Not applicable

Vapor Density: Not applicable Molecular Weight: N.E. Pounds Per Gallon: N.E

## 10. STABILITY AND REACTIVITY

Stability: Stable

Conditions To Avoid: None

Hazardous Decomposition Or By Products: None

Hazardous Polymerization: Will Not Occur

Conditions To Avoid: None

1. TOXICOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

The preferred options for disposal are to send to licensed reclaimers. 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 Class: NOT REGULATED

Hazard Class: NONE

UN No: NOT APPLICABLE

Packing Group:

Guide No:

Ship Name:

## 15. REGULATORY INFORMATION

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

SARA TITLE III: NONE

CALIF. PROP. 65: NONE

CARCINOGENICITY: NONE OF THE COMPONENTS IN THIS CHEMICAL IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

SCAQMD Rule 443.1

Photochemically Reactive: No

Maximum Grams of VOC per Liter: 0 gm/L

Vapor Pressure: N.E. mmHg@ 20 °C

## 16. OTHER INFORMATION (HMIS)

Health: 1

Flammability: 0

Reactivity: 0

Protective: B

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.

# Developer

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: FLIC FILM INC

Address: 107B Morrison Road, Longview, Alberta, T0L 1H0

Product Name: ECN2 Developer Powder

Date Prepared: 06/01/2021

Customer Information Phone Number: 1-403-982-4272

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name - Weight - CAS

Sodium Carbonate (Anhydrous) 60-70% 497-19-8

Sodium Bicarbonate (Anhydrous) 12-19% 144-55-8

Sodium Sulfite (Anhydrous) 3-8% 7757-83-7

Sodium Bromide (Anhydrous) 1-5% 7647-15-6

N-[2-[ethylamino]ethyl]methanesulfonamide Sesquisulfate Monohydrate 8-15% 24567-76-8

### **3. HAZARDOUS IDENTIFICATION**

#### **POTENTIAL HEALTH EFFECTS**

Eye Contact: Causes severe irritation.

Inhalation: May cause irritation mucous membranes and to upper respiratory tract.

Ingestion: May cause irritation to gastrointestinal track. Some asthmatics or sulfite-sensitive persons may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness, and diarrhea.

Skin Contact: May cause irritation or reddening.

Signs And Symptoms Of Exposure: Eye irritation, respiratory irritation, dermatitis, difficulty breathing, abdominal pain, skin irritation, mucus membrane irritation, coughing, nausea, and diarrhea.

### **4. FIRST AID MEASURES**

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

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

Ingestion: Do not induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Skin Contact: Immediately wash skin with plenty of soap. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Aggravated Medical Conditions: Asthmatics or hypersensitive individuals may experience difficult breathing.

Supplemental Health Information: None of the components in this product is listed by IARC, NTP, or OSHA as carcinogen.

Irritant (skin and eye)

Skin Sensitizer

Acute Toxicity (harmful)

Narcotic Effects

Respiratory Tract Irritant

### **5. FIRE FIGHTING MEASURES**

#### **FLAMMABLE PROPERTIES**

Flash Point: Nonflammable Flash Point Method: Not applicable Auto-ignition: Not applicable

LEL: Not applicable UEL: Not applicable

Extinguishing Media: Any applicable to the primary cause of the fire. Flood with water.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual Fire And Explosion Hazards: None known. Combustion Products: None known.

### **6. ACCIDENTAL RELEASE MEASURES**

Steps To Be Taken In Case Material Is Spilled Or Released: Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment during cleanup. Sweep up. For working solution dike the spill. Prevent liquid from entering sewers, waterways or low areas. Soak up with sawdust, sand, oil dry, or other absorbent material. Absorb spillage in inert material. Remove non-usable solid material and/or contaminated soil for disposal. Discharge to sewer may require approval of local authorities. Contaminated surfaces may be cleaned using water.

### **7. HANDLING AND STORAGE**

Precautions To Be Taken In Handling And Storage: Store in a cool, dry, well ventilated area. Keep containers closed. Do not store with incompatible materials. Do not store or consume food, drink, or tobacco where they may become contaminated with this material.

Other Precautions: All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse containers. Triple rinse before disposal.

## **8. EXPOSURE CONTROL / PERSONAL PROTECTION**

### **PERSONAL PROTECTIVE EQUIPMENT**

Respiratory Protection: When this product is used in the intended way, no respiratory protection is anticipated to be necessary. In cases where there is a likelihood of inhalation exposure to the powder (dust), wear a NIOSH approved dust respirator.

Ventilation: Avoid breathing vapors or mist from working solution. Local exhaust ventilation is recommended. Ventilation must be adequate to keep hazardous ingredients below their exposure limits.

Protective Gloves: Impervious gloves and aprons recommended.

Eye Protection: Chemical safety glasses with side shields (or goggles).

Other Protective Clothing or Equipment: Rubber or plastic apron.

Work/Hygienic Practices: Use good personal hygiene when handling this product. Wash hands after use, before smoking or using the toilet.

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Guidelines: See Section 2.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance And Odor: Yellow White, no odor. Solubility In Water: Complete

Boiling Point: Not applicable Vapor Pressure: Not applicable Specific Gravity: Not applicable

Melting Point: N.E. Freezing Point: N.E. Percent Volatile: 0

Evaporation Rate: Not applicable Ph: Not applicable

Vapor Density: Not applicable Molecular Weight: N.E. Pounds Per Gallon: N.E

## **10. STABILITY AND REACTIVITY**

Stability: Stable

Conditions To Avoid: None

Hazardous Decomposition Or By Products: None

Hazardous Polymerization: Will Not Occur

Conditions To Avoid: None

## **11. TOXICOLOGICAL INFORMATION**

## **12. ECOLOGICAL INFORMATION**

The following properties are ESTIMATED from the components of the preparations.

### **Potential Toxicity:**

Toxicity to fish (LC50) – 10-100 mg/l estimated

Toxicity to daphnia (EC50) – 10-100 mg/l estimated

**Persistence and degradability:** Not readily biodegradable

This product has not been tested for environmental effects

## **13. DISPOSAL CONSIDERATIONS**

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

## **14. TRANSPORT INFORMATION**

DOT Class: NOT REGULATED

Hazard Class: NONE

UN No: NOT APPLICABLE

Packing Group:

Guide No:

Ship Name:

## 15. REGULATORY INFORMATION

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

SARA TITLE III: NONE

CALIF. PROP. 65: NONE

CARCINOGENICITY: NONE OF THE COMPONENTS IN THIS CHEMICAL IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

SCAQMD Rule 443.1

Photochemically Reactive: No

Maximum Grams of VOC per Liter: 0 gm/L

Vapor Pressure: N.E. mmHg@ 20 °C

## 16. OTHER INFORMATION (HMIS)

Health: 1

Flammability: 0

Reactivity: 0

Protective: B

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.

# STOP BATH

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: FLIC FILM INC

Address: 107B Morrison Road, Longview, Alberta, T0L 1H0

Product Name: STOP BATH

Date Prepared: 06/01/2021

Customer Information Phone Number: 1-403-982-4272

## 2. HAZARDS IDENTIFICATION

**Appearance:** Colorless liquid

**Physical State:** Liquid

**Odor:** vinegar odor

**Hazards of Product:** Corrosive, flammable liquid and vapor. Causes severe digestive and respiratory tract burns. Causes severe eye and skin burns. May be harmful if absorbed through the skin. Acetic acid forms ice-like solid below 17°C (62°F).

### Potential Health Hazards

**Eye:** Causes severe eye irritation. Contact with liquid or vapor causes severe burns and possible irreversible eye damage. **Skin:** Causes skin burns. May be harmful if absorbed through the skin.

Contact with the skin may cause blackening and hyperkeratosis of the skin of the hands. **Ingestion:**

May cause severe and permanent damage to the digestive tract. Causes severe pain, nausea, vomiting, diarrhea, and shock. May cause polyuria, oliguria and anuria. Rapidly absorbed from the gastrointestinal tract. **Inhalation:** Effects may be delayed. Causes chemical burns to the respiratory tract. Exposure may lead to bronchitis, pharyngitis, and dental erosion. May be absorbed through the lungs. **Chronic:** Chronic exposure to acetic acid may cause erosion of dental enamel, bronchitis, eye irritation, darkening of the skin, and chronic inflammation of the respiratory tract. Acetic acid can cause occupational asthma. One case of a delayed asthmatic response to glacial acetic acid has been reported in a person with bronchial asthma. Skin sensitization to acetic acid is rare, but has occurred.

**Aggravation of Pre-existing Conditions:** Persons with pre-existing skin disorders or eye problems, or impaired respiratory function may be more susceptible to the effects of the substance.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name - Weight - CAS

GLACIAL ACETIC ACID 50-100% 64-19-7

#### 4. FIRST AID MEASURES

**Skin Contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

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

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Serious Inhalation:** Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

#### 5. FIRE FIGHTING MEASURES

Conditions of flammability: Flammable

Means of extinction: Not available

Flash point and method of determination: CLOSED CUP: 39°C (102.2°F).

OPEN CUP: 43°C (109.4°F).

Upper flammable limit: 19.9%

Lower flammable limit: 4%

Auto-ignition temperature: 463°C (865.4°F)

Hazardous combustion products: These products are carbon oxides (CO, CO<sub>2</sub>). Explosion data - sensitivity to mechanical impact: Not available

Explosion data - sensitivity to static discharge: Not available

Fire Fighting Media and Instructions: Flammable liquid, soluble or dispersed in water. **SMALL FIRE:** Use DRY chemical powder. **LARGE FIRE:** Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

Special Remarks on Fire Hazards: Reacts with metals to produces flammable hydrogen gas. It will ignite on contact with potassium-tert-butoxide. A mixture of ammonium nitrate and acetic acid ignites when warmed, especially if warmed.

Special Remarks on Explosion Hazards: Acetic acid vapors may form explosive mixtures with air.

Reactions between acetic acid and the following materials are potentially explosive: 5-azidotetrazole, bromine pentafluoride, chromium trioxide, hydrogen peroxide, potassium permanganate, sodium peroxide, and phosphorus trichloride. Dilute acetic acid and dilute hydrogen can undergo an exothermic reaction if heated, forming peracetic acid which is explosive at 110 degrees C. Reaction between chlorine trifluoride and acetic acid is very violent, sometimes explosive.

#### 6. ACCIDENTAL RELEASE MEASURES

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.

Large Spill: Flammable liquid. Corrosive liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not touch spilled material. Use water

spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate.

## **7. HANDLING AND STORAGE**

Handling Procedures: Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, metals, acids, alkalis.

Storage Requirements: Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection Eyewear: Splash goggles Gloves: Gloves Clothing: Synthetic apron

Respirator: Vapor respirator

Exposure Limits: TWA: 10 STEL: 15 (ppm) [Australia] TWA: 25 STEL: 27 (mg/m<sup>3</sup>) [Australia] TWA: 10 STEL: 15 (ppm) from NIOSH TWA: 25 STEL: 37 (mg/m<sup>3</sup>) from NIOSH TWA: 10 STEL: 15 (ppm) [Canada] TWA: 26 STEL: 39 (mg/m<sup>3</sup>) [Canada] TWA: 25 STEL: 37 (mg/m<sup>3</sup>) TWA: 10 STEL: 15 (ppm) from ACGIH (TLV) [United States] [1999] TWA: 10 (ppm) from OSHA (PEL) [United States] TWA: 25 (mg/m<sup>3</sup>) from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state: Liquid

Odour and appearance: Pungent, vinegar-like, strong sour

Odour threshold: Not available

Specific gravity: 1.049 (Water = 1)

Vapour pressure: 1.5 kPa (@ 20°C)

Vapour density: 2.07 (Air = 1)

Evaporation rate: Not available

Boiling point: 118.1°C (244.6°F)

Freezing point: 16.6°C (61.9°F)

pH (1% soln/water): 2

Coefficient of water/oil distribution: The product is more soluble in water; log (oil/water) = -0.2

Taste: Vinegar, sour (Strong.)

Critical Temperature: 321.67°C (611°F)

Dispersion Properties: See solubility in water, diethyl ether, and acetone.

Solubility: Easily soluble in cold water, hot water. Soluble in diethyl ether, acetone. Miscible with Glycerol, alcohol, Benzene, Carbon Tetrachloride. Practically insoluble in Carbon Disulfide.

## **10. STABILITY AND REACTIVITY**

Stability: Stable

Conditions to avoid: Heat, ignition sources, incompatible materials

Incompatible materials: Reactive with oxidizing agents, reducing agents, metals, acids, alkalis.

Conditions of reactivity: Reacts violently with strong oxidizing agents, acetaldehyde, and acetic anhydride. Material can react with metals, strong bases, amines, carbonates, hydroxides, phosphates, many oxides, cyanides, sulfides, chromic acid, nitric acid, hydrogen peroxide, carbonates. Ammonium nitrate, ammonium thiosulfate, chlorine trifluoride, chlorosulfonic acid, perchloric acid, permanganates, xylene, oleum, potassium hydroxide, sodium hydroxide, phosphorus isocyanate, ethylenediamine, ethylene imine.

Hazardous decomposition products: Carbon dioxide and carbon monoxide may form when heated to decomposition. May also release toxic and irritating vapours.



Corrosivity: Highly corrosive in presence of stainless steel (304). Slightly corrosive in presence of aluminum, of copper. Non-corrosive in presence of stainless steel (316).

Special Remarks on Corrosivity: Moderate corrosive effect on bronze. No corrosion data on brass

Polymerization: Will not occur.

## **11. TOXICOLOGICAL INFORMATION**

Route of entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Effects of chronic exposure: May affect genetic material and may cause reproductive effects based on animal data. No human data found.

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, mucous membranes, skin, and teeth.

Other Toxic Effects on Humans: Extremely hazardous in case of inhalation (lung corrosive). Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive).

Irritancy of product: Not available

Sensitization to product: Not available

Carcinogenicity: Not available

Reproductive toxicity: Not available

Teratogenicity: Not available

Mutagenicity: Not available

Toxicologically synergistic products:

Toxicity to Animals: WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 3310 mg/kg [Rat]. Acute dermal toxicity (LD50): 1060 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 5620 1 hours [Mouse].

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: Extremely irritating and corrosive. Causes skin irritation (reddening and itching, inflammation). May cause blistering, tissue damage and burns. Eyes: Extremely irritating and corrosive. Causes eye irritation, lacrimation, redness, and pain. May cause burns, blurred vision, conjunctivitis, conjunctival and corneal destruction and permanent injury. Inhalation: Causes severe respiratory tract irritation. Affects the sense organs (nose, ear, eye, taste), and blood. May cause chemical pneumonitis, bronchitis, and pulmonary edema. Severe exposure may result in lung tissue damage and corrosion (ulceration) of the mucous membranes. Inhalation may also cause rhinitis, sneezing, coughing, oppressive feeling in the chest or chest pain, dyspnea, wheezing, tachypnea, cyanosis, salivation, nausea, giddiness, muscular weakness. Ingestion: Moderately toxic. Corrosive. Causes gastrointestinal tract irritation (burning and pain of the mouth, throat, and abdomen, coughing, ulceration, bleeding, nausea, abdominal spasms, vomiting, hematemesis, diarrhea. May Also affect the liver (impaired liver function), behavior (convulsions, giddiness, muscular weakness), and the urinary system - kidneys (Hematuria, Albuminuria, Nephrosis, acute renal failure, acute tubular necrosis). May also cause dyspnea or asphyxia. May also lead to shock, coma and death. Chronic Potential Health Effects: Chronic exposure via ingestion may cause blackening or erosion of the teeth and jaw necrosis, pharyngitis, and gastritis. It may also behavior (similar to acute ingestion), and metabolism (weight loss). Chronic exposure via inhalation may cause asthma and/or bronchitis with cough, phlegm, and/or shortness of breath. It may also affect the blood (decreased leukocyte count), and urinary system (kidneys). Repeated or prolonged skin contact may cause thickening, blackening, and cracking of the skin.

## **12. ECOLOGICAL INFORMATION**

Ecotoxicity: Ecotoxicity in water (LC50): 423 mg/l 24 hours [Fish (Goldfish)]. 88 ppm 96 hours [Fish (fathead minnow)]. 75 ppm 96 hours [Fish (bluegill sunfish)]. >100 ppm 96 hours [Daphnia].

BOD5 and COD: BOD-5: 0.34-0.88 g oxygen/g

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available

## **13. DISPOSAL CONSIDERATIONS**

The preferred options for disposal are to send to licensed re-claimers. 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**

Special shipping information: UN2789 II

Transport of Dangerous Goods (TDG): ACETIC ACID GLACIAL

Department of Transportation (DOT): CLASS 8(3): Corrosive material; Flammable liquid.

International Maritime Dangerous Goods (IMO): None

International Civil Aviation Organization (ICAO): None

#### **15. REGULATORY INFORMATION**

WHIMIS classification: CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F). CLASS E: Corrosive liquid.

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS:

This product is on the European Inventory of Existing Commercial Chemical Substances.

SERA: Not available

TSCA: CAS# 64-19-7 is listed on the TSCA inventory.

#### **16. OTHER INFORMATION**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Chief Medical Supplies be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Chief Medical Supplies has been advised of the possibility of such damages.

## **Bleach**

### **1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Manufacturer: FLIC FILM INC

Address: 107B Morrison Road, Longview, Alberta, T0L 1H0

Product Name: Color Film Bleach

Date Prepared: 06/01/2021

Customer Information Phone Number: 1-403-982-4272

### **2. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name - Weight - CAS

POTASSIUM FERRICYANIDE (Anhydrous) 78-85% 13746-66-2

SODIUM BROMIDE (Anhydrous) 12-22% 7647-15-6

### **2.2 PICTOGRAMS**



Hazard statements (GHS-US) : Warning  
H315 - Causes skin irritation

H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation  
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust.

P264 - Wash exposed skin thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, eye protection.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water

### **3. HAZARDOUS IDENTIFICATION**

#### **POTENTIAL HEALTH EFFECTS**

Eye Contact: Causes severe irritation.

Inhalation: May cause irritation mucous membranes and to upper respiratory tract.

Ingestion: May cause irritation to gastrointestinal track.

Skin Contact: May cause irritation or reddening.

Signs And Symptoms Of Exposure: Eye irritation, respiratory irritation, dermatitis, difficulty breathing, abdominal pain, skin irritation, mucus membrane irritation, coughing, nausea, and diarrhea.

### **4. FIRST AID MEASURES**

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

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

Ingestion: Do not induce vomiting. Call a physician or poison control centre immediately. Never give anything by mouth to an unconscious person.

Skin Contact: Immediately wash skin with plenty of soap. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Aggravated Medical Conditions: Asthmatics or hypersensitive individuals may experience difficult breathing.

Supplemental Health Information: None of the components in this product is listed by IARC, NTP, or OSHA as carcinogen.

### **5. FIRE FIGHTING MEASURES**

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 1; Instability: 0

### **6. ACCIDENTAL RELEASE MEASURES**

Steps To Be Taken In Case Material Is Spilled Or Released: Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment during cleanup. Sweep up. For working solution dike the spill. Prevent liquid from entering sewers, waterways or low areas. Soak up with sawdust, sand, oil dry, or other absorbent material. Absorb spillage in inert material. Remove non-usable solid material and/or contaminated soil for disposal. Discharge to sewer may require approval of local authorities. Contaminated

surfaces may be cleaned using water.

## **7. HANDLING AND STORAGE**

Precautions To Be Taken In Handling And Storage: Store in a cool, dry, well ventilated area. Keep containers closed. Do not store with incompatible materials. Do not store or consume food, drink, or tobacco where they may become contaminated with this material.

Other Precautions: All labelled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse containers. Triple rinse before disposal.

## **8. EXPOSURE CONTROL /PERSONAL PROTECTION**

### **PERSONAL PROTECTIVE EQUIPMENT**

Respiratory Protection: When this product is used in the intended way, no respiratory protection is anticipated to be necessary. In cases where there is a likelihood of inhalation exposure to the powder (dust), wear a NIOSH approved dust respirator.

Ventilation: Avoid breathing vapours or mist from working solution. Local exhaust ventilation is recommended. Ventilation must be adequate to keep hazardous ingredients below their exposure limits.

Protective Gloves: Impervious gloves and aprons recommended.

Eye Protection: Chemical safety glasses with side shields (or goggles).

Other Protective Clothing or Equipment: Rubber or plastic apron.

Work/Hygienic Practices: Use good personal hygiene when handling this product. Wash hands after use, before smoking or using the toilet.

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Guidelines: See Section 2.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Solid

**Appearance:** red

**Odor:** odorless

**pH:** Not available.

**Vapor Pressure:** Negligible

**Vapor Density:** Not available.

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:**Decomposes

**Decomposition Temperature:**> 310 deg C

**Solubility:** Soluble.

**Specific Gravity/Density:**1.85 g/cm<sup>3</sup>

**Molecular Formula:**C<sub>6</sub>FeK<sub>3</sub>N<sub>6</sub>

**Molecular Weight:**329.26

## **10. STABILITY AND REACTIVITY**

Stability: Stable under normal temperatures and pressures. Decomposes when heated.

Conditions To Avoid: High temperatures, light, dust generation.

Conditions To Avoid: None

## **11. TOXICOLOGICAL INFORMATION**

### **Carcinogenicity:**

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Neurotoxicity:** No information reported

## **12. ECOLOGICAL INFORMATION**

**Ecotoxicity:** No data available. Acute and long-term toxicity to fish and invertebrates: LC50/96hr for fathead minnow: GT 100mg/L; LC50/96hr for water flea: 80mg/L. Toxicity to aquatic and terrestrial plants: No plan germination adverse effects at 10mg/L for ryegrass, radish and lettuce.

**Environmental:** Bioaccumulation/Bioconcentration: Not likely to bioconcentrate.

**Physical:** No information available.

**Other:** No information available.

## **13. DISPOSAL CONSIDERATIONS**

The preferred options for disposal are to send to licensed re-claimers. 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 Class: NOT REGULATED

Hazard Class: NONE

UN No: NOT APPLICABLE

Packing Group:

Guide No:

Ship Name:

## **15. REGULATORY INFORMATION**

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

SARA TITLE III: NONE

CALIF. PROP. 65: NONE

CARCINOGENICITY: NONE OF THE COMPONENTS IN THIS CHEMICAL IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

SCAQMD Rule 443.1

Photochemically Reactive: No

Maximum Grams of VOC per Liter: 0 gm/L

Vapor Pressure: N.E. mmHg@ 20 °C

## **16. OTHER INFORMATION (HMIS)**

Health: 1

Flammability: 0

Reactivity: 0

Protective: B

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.

# FIXER

## **1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Manufacturer: Flic Film Inc

Product Name: Flic Quick Fix

Date Prepared: 06/01/2021

Customer Information Phone Number: 1-403-982-4272

## **2. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name - Weight – CAS

Ammonium Thiosulfate 86-95% LIQUID 100% 10102-17-7

Sodium Sulfite (Anhydrous) 1-5% 7757-83-7  
Sodium Metabisulfite (Anhydrous) 1-5% 7681-57-4

### **3. HAZARDOUS IDENTIFICATION**

#### **POTENTIAL HEALTH EFFECTS**

Eye Contact: Causes severe irritation.

Inhalation: May cause irritation mucous membranes and to upper respiratory tract.

Ingestion: May cause irritation to gastrointestinal track. Some asthmatics or sulfite-sensitive persons may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness, and diarrhea.

Skin Contact: May cause irritation or reddening.

Signs And Symptoms Of Exposure: Eye irritation, respiratory irritation, dermatitis, difficulty breathing, abdominal pain, skin irritation, mucus membrane irritation, coughing, nausea, and diarrhea.

#### **4. FIRST AID MEASURES**

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes.

Get immediate medical attention.

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

Ingestion: Do not induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Skin Contact: Immediately wash skin with plenty of soap. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Aggravated Medical Conditions: Asthmatics or hypersensitive individuals may experience difficult breathing.



Supplemental Health Information: None of the components in this product is listed by IARC, NTP, or OSHA as carcinogen.

Irritant (skin and eye)  
SkinSensitizer  
Acute Toxicity (harmful)  
Narcotic Effects  
Respiratory Tract  
Irritant

### **5. FIRE FIGHTING MEASURES**

#### **FLAMMABLE PROPERTIES**

Flash Point: Nonflammable Flash Point Method: Not applicable Auto-ignition: Not applicable

LEL: Not applicable UEL: Not applicable

Extinguishing Media: Any applicable to the primary cause of the fire. Flood with water.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing

to prevent contact with skin and eyes.

Unusual Fire And Explosion Hazards: None known. Combustion Products: None known.

## **6. ACCIDENTAL RELEASE MEASURES**

Steps To Be Taken In Case Material Is Spilled Or Released: Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment during cleanup. Sweep up. For working solution dike the spill. Prevent liquid from entering sewers, waterways or low areas. Soak up with sawdust, sand, oil dry, or other absorbent material. Absorb spillage in inert material. Remove non-usable solid material and/or contaminated soil for disposal. Discharge to sewer may require approval of local authorities. Contaminated surfaces may be cleaned using water.

## **7. HANDLING AND STORAGE**

Precautions To Be Taken In Handling And Storage: Store in a cool, dry, well ventilated area. Keep containers closed. Do not store with incompatible materials. Do not store or consume food, drink, or tobacco where they may become contaminated with this material.

Other Precautions: All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse containers. Triple rinse before disposal.

## **8. EXPOSURE CONTROL / PERSONAL PROTECTION PERSONAL PROTECTIVE EQUIPMENT**

Respiratory Protection: When this product is used in the intended way, no respiratory protection is anticipated to be necessary. In cases where there is a likelihood of inhalation exposure to the powder (dust), wear a NIOSH approved dust respirator.

Ventilation: Avoid breathing vapors or mist from working solution. Local exhaust ventilation is recommended. Ventilation must be adequate to keep hazardous ingredients below their exposure limits.

Protective Gloves: Impervious gloves and aprons recommended.

Eye Protection: Chemical safety glasses with side shields (or goggles). Other Protective Clothing or Equipment: Rubber or plastic apron.

Work/Hygienic Practices: Use good personal hygiene when handling this product. Wash hands after use, before smoking or using the toilet.

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance And Odor: Yellow White, no odor. Solubility In Water: Complete

Boiling Point: Not applicable Vapor Pressure: Not applicable Specific Gravity: Not applicable Melting Point: N.E. Freezing Point: N.E. Percent Volatile:0 Evaporation Rate: Not applicable Ph: Not applicable

Vapor Density: Not applicable Molecular Weight: N.E. Pounds Per Gallon: N.E

## **10. STABILITY AND REACTIVITY**

Stability: Stable

Conditions To

Avoid: None

Hazardous Decomposition Or By  
Products: None Hazardous

Polymerization: Will Not Occur Conditions  
To Avoid: None

#### **11. TOXICOLOGICAL INFORMATION**

#### **12. ECOLOGICAL INFORMATION**

#### **13. DISPOSAL CONSIDERATIONS**

The preferred options for disposal are to send to licensed reclaimers. 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 Class: NOT REGULATED

Hazard Class: NONE

UN No: NOT APPLICABLE

Packing Group:

Guide No:

Ship Name:

#### **15. REGULATORY INFORMATION**

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

SARA TITLE III: NONE

CALIF. PROP. 65: NONE

CARCINOGENICITY: NONE OF THE COMPONENTS IN THIS CHEMICAL IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

SCAQMD Rule 443.1

Photochemically Reactive: No

Maximum Grams of VOC per Liter: 0 gm/L

Vapor Pressure: N.E. mmHg@ 20 °C

#### **16. OTHER INFORMATION (HMIS)**

Health: 1

Flammability: 0

Reactivity: 0

Protective: B

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.

## **STABILIZER**

### **1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Manufacturer: FLIC FILM INC

1-7B Morrison Road, Longview, Alberta, Canada T0L 1H0

Product Name: C-41 and ECN-2 stabilizer

**Product Use:** Photographic stabilizer

**Customer Information Phone Number:** 1-403-982-4272

Date Reviewed: 06/01/2021

### **2. HAZARDOUS IDENTIFICATION**

#### **2.1 Classification of the substance or mixture**

##### **Health hazard**

Acute toxicity, Oral (Category 4), H302



Skin sensitisation (Category 1) H314  
Respiratory sensitisation (Category 1) H335

## 2.2 GHS Label elements, including precautionary statements

### Pictogram



### Signal Word: **WARNING**

Hazard statement(s)

H302 Harmful if swallowed

H314 Causes skin irritation

H335 May cause respiratory irritation

Precautionary statement(s)

P261 Avoid breathing mist, dust, spray

P280 Wear protective gloves, eye protection

P301 + P312 IF SWALLOWED; call a POISON CENTER or doctor/physician if you feel unwell

P302 + P352 IF ON SKIN: Wash with plenty of soap

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Name CAS OSHA PEL ACGIH TLV Weight %**

HEXAMINE\* 100-97-0 15 mg/m<sup>3</sup> (dust) 10mg/m<sup>3</sup> (particulate) 100

\* Decomposes as formaldehyde and ammonia

## 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:** 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.

## 5. FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Flammable in the presence of a source of ignition, through friction or retained heat. Keep away from heat/sparks/open flame. Quantity is very small. Use agent appropriate for surrounding fire.

### 5.2 Special Hazards arising from substance or mixture

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

Combustion Products: Carbon oxides, nitrogen oxides, hydrogen cyanide.

### 5.3 Advise for firefighters

Wear self-contained breathing NIOSH/MSHA approved apparatus and protective clothing to

prevent contact with skin and eyes. Fire or excessive heat may produce hazardous decomposition products. 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 dust formation. Avoid breathing dust. Sweep up and collect for disposal. In working solution absorb spillage in inert material. Soak up with sawdust, sand, or other absorbent material. Remove non-usable solid material and/or contaminated soil for disposal according to local regulations.

### **6.2 Environmental precautions**

Prevent liquid from entering sewers, waterways or low areas.

## **7. HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

Avoid breathing vapors, mist or gas. Ensure adequate ventilation. 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 or oxidizing agents. All labeled precautions must be observed when handling and storing.

## **8. EXPOSURE CONTROL / PERSONAL PROTECTION**

### **8.1 Control parameters**

See Section 3.

### **8.2 Exposure controls**

Use good personal hygiene when handling this product. 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:** Avoid breathing mists. A respirator should be worn if hazardous decomposition products are likely to be released.

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

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

**Respiratory protection:** Local exhaust ventilation is recommended. Ventilation must be adequate to keep hazardous ingredients below their exposure limits, typically 10 air changes per hour.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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

Appearance And Odor: Colorless crystalline powder

Solubility In Water: Soluble

Boiling Point: No data available

Flash Point: 482°F – closed cup

Melting Point: 536°F

Density: 1.331 g/cm<sup>3</sup>

Vapor Pressure: < 0.01 mmHg

Percent Volatile: 92.60

V.O.C. is 0.

## **10. STABILITY AND REACTIVITY**

### **10.1 Reactivity**

Stable

### **10.2 Chemical stability**

Conditions To Avoid: Heat

### **10.3 Possibility of hazardous reactions**

None

#### **10.4 Conditions to avoid**

Conditions To Avoid: Heat

#### **10.5 Incompatible Materials**

Strong acids, strong oxidizing agents.

#### **10.6 Decomposition Products**

Combustion Products: Carbon oxides, nitrogen oxides, hydrogen cyanide.

### **11. TOXICOLOGICAL INFORMATION**

#### **11.1 Information of toxicological effects**

##### **Component information**

*Hexamethylenetetramine 100-97-0*

##### **Acute toxicity:**

LD50 Oral – rat – > 20,000 mg/kg

Dermal:

No data available

Inhalation:

No data available

##### **Skin irritation:**

No data available

##### **Eye irritation:**

No data available

##### **Respiratory or Skin Sensitization**

Maximisation Test – guinea pig – May cause allergic skin reaction

##### **Carcinogenicity**

None

##### **Germ cell mutagenicity**

Laboratory experiments have shown mutagenic effects.

### **12. ECOLOGICAL INFORMATION**

##### **Component information**

*Hexamethylenetetramine 100-97-0*

#### **12.1 Toxicity**

Toxicity to fish LC50 – Pimephales promelas (fathead minnow) – 49,880 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) 36,000 mg/l - 48 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 Results of PBT and vPvB assessment**

No data available

#### **12.6 Other adverse effects**

No data available

### **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)**

DOT Name: Hexamethylenetetramine

Hazard Class: 4.1

UN No.: 1328

Packing Group: III

Guide No: 133

Ship Name: PHOTOGRAPHIC STABILIZER

Limited Quantity Exception may apply to this product, for "inner packagings not over 1.0L (0.3 gal) for liquids and 1.0 kg (2.2 lb.) for solids". 173.154 (b) (1). Each package must conform to the packaging requirements of Subpart B of Part 173 and may not exceed 30 kg (66 lb.) gross weight. For further information consult the 49 CFR.

DOT Class: CONSUMER COMMODITY, ORM-D

Hazard Class: NOT APPLICABLE

UN No.: NOT APPLICABLE

Packing Group: NOT APPLICABLE

Ship Name: PHOTOGRAPHIC STABILIZER

## **15. REGULATORY INFORMATION**

### **SARA 302 Components**

The following components are subject to reporting: None

### **SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313: None

### **SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

### **California Prop 65 Components**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

### **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: 0 gm/L

This is a solid

## **16. OTHER INFORMATION**

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

Acute toxicity, Oral (Category 4), H302

Skin sensitisation (Category 1) H314

Respiratory sensitisation (Category 1) H335

Acute toxicity, Oral (Category 4), H302

### **HMIS RATING**

Health: 3\*

Flammability: 2

Reactivity: 1

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.