Material Number / Product Name:
A.B. Dick C-FIX Concentrated Film Fixer

Associated Product Codes / Catalog Numbers:
55070, 55075, 55070-55

Product size as shipped: 4X5-Qt**,** 5-Gal, 55-Gal

1 PRODUCT AND COMPANY IDENTIFICATION

Presstek, Inc
55 Executive Drive
Hudson N.H. 03051

Emergency Telephone (24 Hrs.):
Transport-CHEMTREC inside NA: 800-424-9300
Transport-CHEMTREC outside NA: 703-527-3887

Non-emergency Telephone:
603-595-7000

Intended Use: Photographic processing chemical

2 HAZARDS IDENTIFICATION

Emergency Overview
Physical State: Liquid
Color: Clear, pale yellow
Odor: Vinegar like, slight

WARNING!
Causes skin, eye and respiratory tract irritation. Causes digestive tract irritation. May be harmful if absorbed through skin.

Potential Health Effects

Inhalation: Causes respiratory tract irritation.

Eye Contact: Causes eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.

Skin Contact: Causes skin irritation. May be harmful if absorbed through skin.

Ingestion: May be harmful if swallowed. Causes digestive tract irritation.

Chronic Health Effects: Allergic reaction to sulfites may cause respiratory distress.

Target Organ(s): | Respiratory system | Digestive tract | Eye | Lung | Skin |

Potential Physical / Chemical Effects: This product is not flammable or combustible.

OSHA Regulatory Status: This product is hazardous according to OSHA 29CFR 1910.1200.

Environment: The environmental hazard of the product is considered to be limited.

3 COMPOSITION / INFORMATION ON INGREDIENTS

General Information: The product is a mixture.

Chemical Name	CAS-No.	Concentration*
†Ammonium Thiosulfate	7783-18-8	40 - 60%
Water	7732-18-5	30 - 50%
†Sodium Sulfite	7757-83-7	1 - 7%
†Acetic Acid	64-19-7	1 - 5%
†Ammonium Acetate	631-61-8	0.5 - 1.5%
†Citric acid	77-92-9	0.5 - 1.5%

* All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
† This chemical is hazardous according to OSHA/WHMIS criteria.

4 FIRST AID MEASURES

Inhalation: Move injured person into fresh air and keep person calm under observation. For breathing difficulties, oxygen may be necessary. Get medical attention.

Eye Contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention.

Ingestion: Rinse mouth thoroughly with water and give large amounts of milk or water, if person is conscious. Get medical attention.

5 FIRE-FIGHTING MEASURES

Extinguishing Media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable Extinguishing Media: None.

Special Fire Fighting Procedures: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Unusual Fire & Explosion Hazards: During fire, gases hazardous to health may be formed.

Hazardous Combustion Products: Ammonia, Carbon Dioxide, Carbon Monoxide, Hydrogen, Hydrogen Sulfide, Nitrogen Oxides, Sulfur Oxides

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid inhalation of spray mist and contact with skin and eyes. Persons susceptible for allergic reactions should not handle this product. Wear protective clothing as described in Section 8 of this safety data sheet.

Spill Cleanup Methods: Absorb spillage with suitable absorbent material. For waste disposal, see section 13 of the MSDS.

Environmental Precautions: Avoid discharge into drains, water courses or onto the ground.

Notification Procedures: Inform authorities if large amounts are involved.

7 HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin, and clothing. Avoid breathing mists or vapors. Use work methods which minimize aerosol production. Wash at the end of each work shift and before eating, smoking and using the toilet.

Storage: Store in a cool and well-ventilated place. Keep container closed when not in use. Store away from incompatible materials.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Chemical Name	Source	Type	Exposure Limits	Notes
Acetic Acid	US. ACGIH TLV	TWA	10 ppm	
Acetic Acid	US. ACGIH TLV	STEL	15 ppm	
Acetic Acid	US. NIOSH Guide	IDLH	50 ppm	
Acetic Acid	US. OSHA Z-1 PEL	TWA	25 mg/m³ 10 ppm	

Consult Canadian Provincial Regulations and/or Mexican Regulations on exposure limits, if applicable.

Engineering Controls: Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of exposure to a minimum.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Eye Protection: Wear approved safety goggles.

Hand Protection: Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

Skin Protection: Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental Exposure Controls: Environmental manager must be informed of all major spillages.

9 PHYSICAL AND CHEMICAL PROPERTIES

Color: Clear, pale yellow
Odor: Vinegar like, slight
Odor Threshold: No data available.
Physical State: Liquid
pH: 4.2 (Approximate)
Melting Point: No data available.
Freezing Point: No data available.
Boiling Point: >100°C (212°F)
Flash Point: No data available.
Evaporation Rate: No data available.
Flammability Limit - Upper (%): No data available.
Flammability Limit - Lower (%): No data available.
Vapor Pressure: 15 mmHg @20°C
Vapor Density (Air=1): No data available.
Specific Gravity: 1.34
Solubility in Water: Completely soluble in water
Solubility (Other): Not applicable.
Partition Coefficient (n-Octanol/water): No data available.
Autoignition Temperature: No data available.
Decomposition Temperature: No data available.
Volatile Organic Compounds (VOC): 0 lbs/gal
Viscosity: Not applicable.
Percent Volatile: 40 %w

10 STABILITY AND REACTIVITY

Stability: Stable under normal temperature conditions

Conditions to Avoid: Excessive heat. This product contains an ammonia compound. Mixing of this product with household or industrial bleaches (Sodium Hypochlorite) can result in the release of hazardous or toxic gases. Inhalation of these gases may cause severe respiratory tract irritation.

Incompatible Materials: Sodium hypochlorite. Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products:

At Elevated Temperatures:	Ammonia, Carbon Dioxide, Carbon Monoxide, Hydrogen, Hydrogen Sulfide, Nitrogen Oxides, Sulfur Oxides

Possibility of Hazardous Reactions: Will not occur.

11 TOXICOLOGICAL INFORMATION

Specified Substance(s)
Acute Toxicity:

Chemical Name	Test Results
Acetic Acid	Dermal LD50 (Rabbit): 1060 mg/kg
Acetic Acid	Inhalation LC50 (Mouse): 5620 ppm (v)
Acetic Acid	Oral LD50 (Rat): 3310 mg/kg
Ammonium Thiosulfate	Inhalation LC50 > (4 hour(s), Rat): 2260 mg/m³
Ammonium Thiosulfate	Oral LD50 (Rat): 2890 mg/kg
Citric acid	Oral LD50 (Rat): 3000 mg/kg
Sodium Sulfite	Oral LD50 (Rat): 3560 mg/kg

Listed Carcinogens: None.

Product Information
Acute Toxicity: Causes skin, eye and respiratory tract irritation. Causes digestive tract irritation. May be harmful if absorbed through skin.

Chronic Toxicity: Allergic reaction to sulfites may cause respiratory distress.

12 ECOLOGICAL INFORMATION

Ecotoxicity: The environmental hazard of the product is considered to be limited.

Mobility: The product is water soluble and may spread in water systems.

Persistence and Degradability: No data available.

Bioaccumulation Potential: No data available.

13 DISPOSAL CONSIDERATIONS

General Information: Dispose of waste and residues in accordance with local authority requirements.

Disposal Instructions: Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

14 TRANSPORT INFORMATION

DOT Not regulated.

TDG Not regulated.

IATA Not regulated.

IMDG Not regulated.

15 REGULATORY INFORMATION

Canadian Controlled Products Regulations: This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

WHMIS Classification: D2A, D2B
Mexican Dangerous Statement: This product is dangerous according to Mexican regulations.

Inventory Status

This product or all components are listed or exempt from listing on the following inventory: TSCA, DSL

US Regulations

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Name	RQ
Acetic Acid	5000 lbs
Ammonium Acetate	5000 lbs

SARA Title III
Section 302 Extremely Hazardous Substances (40 CFR 355, Appendix A): Not regulated.

Section 311/312 (40 CFR 370):
[X] Acute (Immediate) [X] Chronic (Delayed) [ ] Fire [ ] Reactive [ ] Pressure Generating

Section 313 Toxic Release Inventory (40 CFR 372): Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
Not regulated.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): Acetic Acid; Ammonium Acetate

Drug Enforcement Act: Not regulated.

TSCA

TSCA Section 4(a) Final Test Rules & Testing Consent Orders: Not regulated.

TSCA Section 5(a)(2) Final Significant New Use Rules (SNURs) (40CFR 721, Subpt. E): Not regulated.

TSCA Section 5(e) PMN-Substance Consent Orders: Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

State Regulations

Massachusetts Right-To-Know List: Acetic Acid; Ammonium Acetate; Ammonium Thiosulfate

Michigan Critical Materials List (Michigan Natural Resources and Environmental Protection Act (Act. 451 of 1994)): Not regulated.

Minnesota Hazardous Substances List: Acetic Acid

New Jersey Right-To-Know List: Acetic Acid; Ammonium Acetate; Ammonium Thiosulfate

Pennsylvania Right-To-Know List: Acetic Acid; Ammonium Acetate; Ammonium Thiosulfate

Rhode Island Right-To-Know List: Acetic Acid

16 OTHER INFORMATION

HAZARD RATINGS

	Health Hazard	Fire Hazard	Instability	Special Hazard
NFPA	2	1	0	--

	Health Hazard	Flammability	Physical Hazard	Personal Protection
HMIS	2*	1	0	C

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe *- Chronic Health Effect
Personal Protection codes: C - Safety Glasses, Gloves, Apron

Issue Date: 18-May-2011
Supercedes Date:
Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.