

Version 1
Revision Date 01-05-2007

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Identification of the substance/preparation:

Product name: SilverStream Color+ Activator

Product Number: 808785-001

Company Identification:

PRINTWARE LLC
2935 WATERS RD., SUITE 160
ST. PAUL, MN 55121
(800) 456-1400

Transport Emergency

Call CHEMTREC : (800) 424-9300

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Aqueous activator solution, mainly consisting of:

	<u>CAS-No.</u>	<u>Concentration [%]</u>		
• Aminoethylethanolamine	111-41-1	>= 1.0	-	<= 5.0
• Potassium hydroxide	1310-58-3	>= 1.0	-	<= 5.0
• Potassium sulphite	10117-38-1	>= 1.0	-	<= 5.0
• Water	7732-18-5	>= 80.0	-	<= 100.0

SECTION 3. HAZARDS IDENTIFICATION

The product as a whole has not been tested. This hazard information is for the individual ingredients.

Emergency Overview

Form : Liquid
Colour : Yellow
Odour : Alcoholic odour

DANGER !

Corrosive. Irritating gases/fumes may be given off during burning or thermal decomposition.
May cause respiratory tract burns. May cause skin burns. May cause eye burns.

Potential Health Effects

Primary Routes of Entry : Eye contact. Skin contact. Inhalation of vapours or mists.
Accidental ingestion.
Aggravated Medical Condition : Persons with preexisting eye, skin or respiratory tract disorders

may be more susceptible to the effects of this product.

Acute health effects

Inhalation

- Aminoethylethanolamine : Corrosive with symptoms of coughing, burning, ulceration, and pain.
- Potassium hydroxide : Corrosive with symptoms of coughing, burning, ulceration, and pain.
- Potassium sulphite : May cause an allergic reaction in some asthmatics and sulfite sensitive individuals. Possible symptoms include bronchoconstriction, sweating, flushing, hives, rapid heart rate, decreased blood pressure and anaphylaxis.

Skin contact

- Aminoethylethanolamine : Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage.
- Potassium hydroxide : Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage.
- Potassium sulphite : May be irritating to the skin with symptoms of reddening and itching.

Eye contact

- Aminoethylethanolamine : Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.
- Potassium hydroxide : Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.
- Potassium sulphite : May be irritating to the eyes with symptoms of reddening, tearing and stinging.

Ingestion

- Aminoethylethanolamine : Corrosive to the digestive tract with symptoms of burning and ulceration.
- Potassium hydroxide : Corrosive to the digestive tract with symptoms of burning and ulceration.
- Potassium sulphite : May be harmful if swallowed. Ingestion can liberate sulfurous acid. Symptoms may include nausea, abdominal pain, vomiting, and gastric hemorrhage.
May cause an allergic reaction in some asthmatics and individuals sensitive to this chemical. Possible symptoms include bronchoconstriction, sweating, flushing, hives, rapid heart rate, decreased blood pressure, and anaphylaxis.

Chronic health hazards

Inhalation

- Potassium sulphite : Prolonged or repeated exposure may result in adverse respiratory effects including cough, tightness of chest and shortness of breath

Skin contact

- Potassium sulphite : Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Carcinogenicity

The components of this product are not listed by NTP, IARC or regulated as a carcinogen by OSHA.

SECTION 4. FIRST AID MEASURES

- Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Skin contact : Wash immediately with plenty of water and soap. If symptoms

Ingestion : persist, seek medical advice.
Inhalation : Rinse mouth with plenty of water. Seek medical advice.
Inhalation : Take person to fresh air. If necessary, seek medical advice.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : All extinguishing media are suitable.
Special protective equipment for fire-fighters : Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.
Additional advice : Product is not combustible.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : See section 8.
Environmental precautions : For waste disposal see section 13.
Methods for cleaning up : Dike the spill if necessary. Soak up with absorbent material. Collect large spills into a properly labelled and sealable container. Prevent release into the drain, soil or surface water.
Additional advice : Wash away residues with plenty of water.

SECTION 7. HANDLING AND STORAGE

Storage

Advice on common storage : Store away from strong acids.
Requirements for storage areas and containers : Keep container tightly closed. Protect from direct sunlight.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Values (US)

Components	CAS-No.	Values	Type	Revision Date	Basis
Potassium hydroxide	1310-58-3	2 mg/m3 2 mg/m3 2 mg/m3	CEIL REL CEIL	2002 06 1997 1989	ACGIH NIOSH OSHA Z1A

Exposure Limit Values (CA)

Components	CAS-No.	Values	Type	Revision Date	Basis
Potassium hydroxide	1310-58-3	2 mg/m3 2 mg/m3 2 mg/m3 2 mg/m3	CEIL CEIL CEIL CEIL	2005 01 1997 01 1997 09 2000	OEL (QUE) CAD AB OEL CAD BC OEL CAD ON OEL

Exposure controls

Hygiene measures : Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.
Respiratory protection : Under normal conditions of use, respirator protection is not required. If respirators are used, institute a program in accordance with OSHA standard 29CFR10110.134.
Hand protection : Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact use gloves made of the materials: butyl rubber (thickness ≥ 0.36 mm, breakthrough

time > 480 min), nitrile rubber (thickness $\geq$ 0.38 mm, breakthrough time > 480 min) or neoprene (thickness $\geq$ 0.65 mm, breakthrough time > 240 min). For intermittent splash protection corresponding gloves with breakthrough times > 60 min can be used. Avoid gloves made of: natural latex.

Eye protection : Safety goggles.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid
Colour : Yellow
Odour : Alcoholic odour
Vapour pressure : 23.00 hPa at 20 °C (68 °F)
Relative density : 1.075 at 20 °C (68 °F)
pH (25 °C, 77 °F) : > 13.0
Melting point/range : < 0 °C (< 32 °F)
Boiling point/range : > 100 °C (> 212 °F)
VOC content : 0.0 %
VOC content excluding water

SECTION 10. STABILITY AND REACTIVITY

Stability : The product is stable under normal conditions of storage and use.
Hazardous decomposition products : Hazardous decomposition products
None
Conditions to avoid : Avoid contact with strong acids. Remove all chemicals and rinse the processing tanks thoroughly with water before using any cleansing products.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity data specific for individual ingredients in their pure state:

Acute oral toxicity

• Aminoethylethanolamine	: LD50 rat	3,000 mg/kg
• Potassium hydroxide	: LD50 rat	273 mg/kg
• Potassium sulphite	: LD50 rat	2,610 mg/kg

Other information

Hazard labelling of this preparation: see section 15.

SECTION 12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradation

• Aminoethylethanolamine : OECD 302B Inherent biodegradability
> 20 % after 28 d

Ecotoxicity effects

Ecotoxicity data specific for individual ingredients in their pure state:

Toxicity to fish

• Aminoethylethanolamine	: Species: Leuciscus idus (golden orfe) LC50: > 500 mg/l/ 48 h
• Potassium hydroxide	: Species: Poecilia reticulata (guppy) LC50: 165 mg/l/ 24 h

- Potassium sulphite : Species: Leuciscus idus (golden orfe)
LC50: > 220 mg/l/ 96 h

Toxicity to daphnia

- Aminoethylethanolamine : Species: Daphnia magna (water flea)
EC50: 190 mg/l/ 48 h
- Potassium sulphite : Species: Daphnia magna (water flea)
EC50: 89 mg/l/ 48 h

Toxicity to algae

- Aminoethylethanolamine : Species: Desmodesmus subspicatus (algae)
EC50: 210 mg/l/ 72 h

Toxicity to bacteria

- Aminoethylethanolamine : Species: Pseudomonas putida (bacteria)
EC50: 135 mg/l/ 17 h
- Potassium sulphite : Species: Pseudomonas putida (bacteria)
EC10: 250 mg/l/ 17 h

Further information on ecology

Biochemical oxygen demand : 5,400 mg/l
within 5 days (BOD5)
Chemical Oxygen Demand : 75,000 mg/l
(COD)

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Waste disposal should be in accordance with existing federal, state and local environmental control laws. Discharge to sewer may require approval of permitting authority and may require pretreatment.

Empty containers.

Recondition or dispose of empty container in accordance with governmental regulations.

US. RCRA Hazardous Waste Classification (40 CFR 261)

When discarded in its purchased form, this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002).

SECTION 14. TRANSPORT INFORMATION

CFR_ROAD

UN-No : 1814
Proper shipping name : POTASSIUM HYDROXIDE SOLUTION
Class : 8
Packing group : II
Labelling No. : 8

CFR_RAIL

UN-No : 1814
Proper shipping name : POTASSIUM HYDROXIDE SOLUTION
Class : 8
Packing group : II
Labelling No. : 8

CFR_INWTR

UN-No : 1814
Proper shipping name : POTASSIUM HYDROXIDE SOLUTION
Class : 8
Packing group : II
Labelling No. : 8

TDG_ ROAD

UN-No : 1814
Proper shipping name : POTASSIUM HYDROXIDE SOLUTION
Class : 8
Packing group : II
Labelling No. : 8

TDG_ RAIL

UN-No : 1814
Proper shipping name : POTASSIUM HYDROXIDE SOLUTION
Class : 8
Packing group : II
Labelling No. : 8

TDG_ INWTR

UN-No : 1814
Proper shipping name : POTASSIUM HYDROXIDE SOLUTION
Class : 8
Packing group : II
Labelling No. : 8

IMO / IMDG

UN-No : 1814
Proper shipping name : POTASSIUM HYDROXIDE SOLUTION
Class : 8
Packing group : II
Labelling No. : 8
EmS : F-A, S-B

ICAO / IATA cargo aircraft only

UN-No : 1814
Proper shipping name : Potassium hydroxide solution
Class : 8
Packing group : II
Labelling No. : 8
Packing instruction : 813

ICAO / IATA passenger and cargo aircraft

UN-No : 1814
Proper shipping name : Potassium hydroxide solution
Class : 8
Packing group : II
Labelling No. : 8
Packing instruction : 809

SECTION 15. REGULATORY INFORMATION**US. Toxic Substances Control Act (TSCA)**

All of the components of this product are listed on the TSCA Inventory.

US. OSHA Classification

This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

US. SARA 311/312 Hazard Categories

Acute Health Hazard.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

- Potassium hydroxide : Reportable quantity: 1,000 lbs

US. California Prop. 65

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

State Right-to-Know Information

The following chemicals are specifically listed by individual states. Other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

	<u>CAS-No.</u>	<u>Concentration [%]</u>		
• Aminoethylethanolamine	111-41-1	>= 1.0	-	<= 5.0
• Potassium hydroxide	1310-58-3	>= 1.0	-	<= 5.0

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

	<u>CAS-No.</u>	<u>Concentration [%]</u>		
• Aminoethylethanolamine	111-41-1	>= 1.0	-	<= 5.0
• Potassium hydroxide	1310-58-3	>= 1.0	-	<= 5.0
• Potassium hydroxide	1310-58-3	>= 1.0	-	<= 5.0

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

	<u>CAS-No.</u>	<u>Concentration [%]</u>		
• Aminoethylethanolamine	111-41-1	>= 1.0	-	<= 5.0
• Potassium hydroxide	1310-58-3	>= 1.0	-	<= 5.0

US. Rhode Island Hazardous Substances Right-to-Know Act (R.I. Gen. Laws Section 28-21-1 et. seq.)

	<u>CAS-No.</u>	<u>Concentration [%]</u>		
• Potassium hydroxide	1310-58-3	>= 1.0	-	<= 5.0

US. Massachusetts, New Jersey, Pennsylvania or Rhode Island Right to Know Substance Lists : See Section 2.

Canadian WHMIS Classification

E : Corrosive Material
D1B : Toxic Material Causing Immediate and Serious Toxic Effects

Canadian Environmental Protection Act (CEPA)

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

- 1,4-dimethyl-3-thio-5-(3-butenyl)triazoliumhydroxi de

SECTION 16. OTHER INFORMATION

US. HMIS Rating

Health	:	3
Flammability	:	0
Reactivity	:	0

(0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe)

US. NFPA 704M Rating

Health	:	3
Flammability	:	0
Reactivity	:	0

(0 = Insignificant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme)

Printware LLC method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Printware LLC as a customer service.

This information is furnished without warranty, expressed or implied, and is believed to be accurate to the best knowledge of Printware LLC. The data on this MSDS relates only to the specific material designated herein. Printware LLC assumes no legal responsibility for use or reliance upon these data.
