

September 1,1990

Health	1
Flammability	0
Reactivity	0
Personal Protection	В

Trebla Chemical 8417 Chapin Industrial Drive St. Louis, MO 63114 800-325-4404 314-423-1919 FAX 314-423-3914

MATERIAL SAFETY DATA SHEET

SECTION I - General Information

Product Name: Trelux-K Film Developer, Part A

Catalog Number: 70CN702, 70FD707

Formula: Aqueous Solution

SECTION II - Product and Hazardous Ingredients Information

				<u>SARA</u>
<u>ITEM</u>	CAS#	PERCENT	<u>PEL</u>	RQ / TPQ
Potassium Carbonate	584-08-7	30-35	N/A	N/A N/A
Potassium Sulfite	10117-38-1	1-5	N/A	N/A N/A
Potassium Hydroxide	1310-58-3	<1	N/A	N/A N/A
Water	7732-18-5	N/A	N/A	N/A N/A

SECTION III - Physical Data

BOILING POINT: >212° F VAPOR PRESSURE (mmHg): ~ 17.0 VAPOR DENSITY (mmHG): ~0.6 SOLUBILITY IN WATER: Complete

SPECIFIC GRAVITY: 1.41 **pH:** ~ 10.23

PERCENT VOLATILE BY WEIGHT: ~ 57 % EVAPORATION RATE: N/A

APPEARANCE AND ODOR: Clear, colorless, odorless.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: None Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Use method appropriate for surrounding fire.

Special Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing to prevent

contact with skin and eyes.

Unusual Fire and Explosions Hazards: None Known.

SECTION V - Health Hazard Data

TLV (ACGIH): Potassium Hydroxide - 2mg/m³(TWA).

Emergency First Aid Procedures:

Eyes: Flush with large amounts of water for 15 minutes. Seek medical attention immediately.

Skin: Wash skin with soap and water. If irritation occurs, seek medical attention.

Ingestion: If conscious, drink water or milk. **DO NOT induce vomiting.** Seek medical attention immediately,

giving full details of amount ingested and toxicity.

Inhalation: Move to fresh air. Get medical attention if breathing becomes difficult.

Effects of Overexposure:

Inhalation: Vapor may cause irritation to nose and throat. May cause difficulty in breathing.

Eyes: Vapor causes irritation. Contact can cause severe burns.

Skin: Repeated and prolonged contact may cause irritation or allergic skin reaction. **Ingestion:** Harmful if swallowed. May cause nausea and loss of consciousness.

NON-CARCINOGENIC: • Teratogenicity: N/A • Reproductive Toxicity: N/A • Mutagenicity: NA • Syner-

gistic Products: N/A

Stability: Stable.

Incompatibility: Strong acids.

Hazardous Decomposition Products: When heated to decomposition it emits CO2. Contact with strong

acids will create heat and release SO₂. **Hazardous Polymerization:** Will not occur.

Conditions to Avoid: Do not store near strong acids.

SECTION VII - Spill or Leak Procedure

Steps to be taken in Case Material is Released or Spilled: Wear protective clothing as specified in Section VIII. If federal, state and local laws permit, flush to the sewer with large amounts of water.

Waste Disposal: If federal, state and/or local laws permit, flush to sewer with large amounts of water. Otherwise dispose of contaminated product and materials used in cleaning up the spill in a manner approved for this material. Consult proper federal, state and/or local regulatory agencies to ascertain proper disposal procedures.

SECTION VIII - Special Protection Information

Respiratory Protection (Specify Type): Should not be necessary under normal conditions. An approved acid gas respirator is necessary under any conditions that may expose individual to vapors.

Ventilation: Good local mechanical ventilation should be sufficient.

Protective Equipment:
Gloves: Impervious gloves.
Eyes: Wear protective goggles.

Other: As necessary to prevent skin contact. Eyewash facilities in vicinity of use.

SECTION IX - Special Precautions

Precautions to be taken in Handling and Storage: Do not store near strong acids. Do not store above 100° F. Wash thoroughly after use.



August 2, 1993

Health	1
Flammability	0
Reactivity	0
Personal Protection	В

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MATERIAL SAFETY DATA SHEET

SECTION I - General Information

Product Name: Trelux-K Film Developer, Part B

Catalog Number: 70CN702, 70FD707

Formula: Aqueous Solution

SECTION II - Product and *Hazardous Ingredients Information

				<u>SARA</u>
<u>ITEM</u>	<u>CAS #</u>	PERCENT	<u>PEL</u>	RQ / TPQ
Hydroxylamine Sulfate	10039-54-0	15-20	N/A	N/A N/A
Water	7732-18-5	N/A	N/A	N/A N/A

SECTION III - Physical Data

BOILING POINT: >212° F VAPOR PRESSURE (mmHg): ~ 17.0 VAPOR DENSITY (mmHg): ~0.6 SOLUBILITY IN WATER: Complete

SPECIFIC GRAVITY: 1.12 **pH:** ~ 2.2

EVAPORATION RATE: N/A PERCENT VOLATILE BY WEIGHT: ~80%

APPEARANCE AND ODOR: Clear, Colorless, and Odorless.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: None Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Use method appropriate for surrounding fire.

Special Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing to prevent

contact with skin and eyes.

Unusual Fire and Explosions Hazards: None Known.

SECTION V - Health Hazard Data

TLV (ACGIH): N/A

Effects of Overexposure:

Inhalation: Prolonged or excessive inhalation may result in headache and nausea. Expected to be a low hazard under normal conditions.

Eyes: Vapor may cause irritation. Contact will cause irritation and possible burns.

Skin: Repeated and prolonged contact may cause irritation.

Ingestion: Harmful if swallowed. Do not take internally. May cause nausea or loss of consciousness.

Emergency First Aid Procedures:

Eyes: Flush with large amounts of water for 15 minutes. Seek medical attention. **Skin:** Wash skin with soap and water. If irritation occurs, seek medical attention.

Ingestion: Drink water or milk and induce vomiting. Seek medical attention immediately giving full details of

amount ingested and toxicity.

Inhalation: Move to fresh air. Get medical attention if breathing becomes difficult.

Carcinogenicity: N/A • Teratogenicity: N/A • Reproductive Toxicity: N/A • Mutagenicity: NA • Synergis-

tic Products: N/A

Stability: Stable.

Incompatibility: BrF_{3.} Strong Alkali.

Hazardous Decomposition Products: When heated to decomposition it emits toxic fumes of SO_x. Sulfuric

acid fumes may form in fires.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: None Known.

SECTION VII - Spill or Leak Procedure

Steps to be taken in Case Material is Released or Spilled: Wear protective clothing as specified in Section VIII. Neutralize with sodium bicarbonate. If federal, state and local laws permit, flush to the sewer with large amounts of water.

Waste Disposal: If federal, state and/or local laws permit, flush to sewer with large amounts of water. Otherwise dispose of contaminated product and materials used in cleaning up the spill in a manner approved for this material. Consult proper federal, state and/or local regulatory agencies to ascertain proper disposal procedures.

SECTION VIII - Special Protection Information

Respiratory Protection (Specify Type): Should not be necessary under normal conditions.

Ventilation: Good local mechanical ventilation should be sufficient.

Protective Equipment:
Gloves: Impervious gloves.
Eyes: Wear protective goggles.

Other: As necessary to prevent skin contact. Eyewash facilities in vicinity of use.

SECTION IX - Special Precautions

Precautions to be taken in Handling and Storage: Do not store near strong alkali. Wash thoroughly after use.



August 2, 1993

Health	2
Flammability	0
Reactivity	0
Personal Protection	В

Trebla Chemical 8417 Chapin Industrial Drive St. Louis, MO 63114 800-325-4404 314-423-1919

MATERIAL SAFETY DATA SHEET

FAX 314-423-3914

SECTION I - General Information

Product Name: Trecon-K Film Developer, Part C

Catalog Number: 70CN702, 70FD707

Formula: Aqueous Solution

SECTION II - Product and Hazardous Ingredients Information

				SARA
<u>ITEM</u>	CAS#	PERCENT	<u>PEL</u>	RQ /TPQ
4-(N-Ethyl-N-2-hydro xyethel)-2-				
methylene phenylene- diamien sulfate	25646-77-9	35-40	N/A	N/A N/A
Water	7732-18-5	N/A	N/A	N/A N/A
CECTION III Dhysical Data				

SECTION III - Physical Data

BOILING POINT: >212° F **VAPOR PRESSURE (mmHg):** ~ 17.0 **VAPOR DENSITY (mmHg):** ~ 0.6 **SOLUBILITY IN WATER:** Complete

SPECIFIC GRAVITY: 1.15 **pH:** ~ 2.0

EVAPORATION RATE: N/A **PERCENT VOLATILE BY WEIGHT:** ~ 62%

APPEARANCE AND ODOR: Reddish brown, sulfur dioxide odor.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: None Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Use method appropriate for surrounding fire.

Special Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing to prevent

contact with skin and eyes.

Unusual Fire and Explosions Hazards: None Known.

SECTION V - Health Hazard Data

TLV (ACGIH): Sulfur Dioxide - 2 ppm (TWA)

Effects of Overexposure:

Inhalation: Vapor may cause irritation to nose and throat. May cause difficulty in breathing.

Eyes: Vapor causes irritation. Contact can cause severe burns.

Skin: Repeated and prolonged contact may cause irritation or allergic skin reaction.

Ingestion: Harmful if swallowed. Can cause burns in upper digestive tract.

Emergency First Aid Procedures:

Eyes: Flush with large amounts of water for 15 minutes. Seek medical attention immediately.

Skin: Wash skin with soap and water. If irritation occurs, seek medical attention.

Ingestion: If conscious, drink water or milk. **DO NOT induce vomiting.** Seek medical attention immediately,

giving full details of amount ingested and toxicity.

Inhalation: Move to fresh air. Get medical attention if breathing becomes difficult

Carcinogenicity: N/A • Teratogenicity: N/A • Reproductive Toxicity: N/A • Mutagenicity: N/A • Synergis-

tic Products: N/A

Stability: Stable.

Incompatibility: Mineral acids and strong alkalis.

Hazardous Decomposition Products: When heated to decomposition it emits toxic fumes of SO_x. Contact

with strong acids will release SO₂.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Do not store near mineral acids and strong alkalis.

SECTION VII - Spill or Leak Procedure

Steps to be taken in Case Material is Released or Spilled: Wear protective clothing as specified in Section VIII. Neutralize with sodium bicarbonate. If federal, state and local laws permit, flush to the sewer with large amounts of water.

Waste Disposal: If federal, state and/or local laws permit, flush to sewer with large amounts of water. Otherwise dispose of contaminated product and materials used in cleaning up the spill in a manner approved for this material. Consult proper federal, state and/or local regulatory agencies to ascertain proper disposal procedures.

SECTION VIII - Special Protection Information

Respiratory Protection (Specify Type): An approved acid gas respirator is necessary when exposed to vapors.

Ventilation: Good local mechanical ventilation should be sufficient.

Protective Equipment:
Gloves: Impervious gloves.
Eyes: Wear protective goggles.

Other: As necessary to prevent skin contact. Eyewash facilities in vicinity of use.

SECTION IX - Special Precautions

Precautions to be taken in Handling and Storage: Do not store near mineral acids and strong alkalis. Do not store above 100° F. After use, wash hands with a non-alkaline hand cleaner.



June 4,1991

Health	1
Flammability	0
Reactivity	0
Personal Protection	В

Trebla Chemical 8417 Chapin Industrial Drive St. Louis, MO 63114 800-325-4404 314-423-1919 FAX 314-423-3914

MATERIAL SAFETY DATA SHEET

SECTION I - General Information
Product Name: Trecon-K Film Bleach
Catalog Number: 70BL711, 70CN702

Formula: Aqueous Solution

SECTION II - Product and Hazardous* Ingredients Information

				<u>S</u>	<u>ARA</u>
<u>ITEM</u>	CAS#	PERCENT	<u>PEL</u>	<u>RQ /</u>	TPQ
Ferric Ammonium PDTA	111687-36-6	10-15	N/A	N/A	N/A
*Acetic Acid	64-19-7	5-10	10 ppm (TWA)	N/A	N/A
Ammonium Nitrate **	6484-52-2	5-10	N/A	N/A	N/A
Ammonium Bromide	12124-97-9	15-20	N/A	N/A	N/A
Water	7732-18-5	45-50	N/A	N/A	N/A

^{**} May be subject to SARA section 313 reporting requirements.

SECTION III - Physical Data

BOILING POINT: >212° F VAPOR PRESSURE (mmHg): ~18 VAPOR DENSITY (mmHg): ~0.6 SOLUBILITY IN WATER: Complete

SPECIFIC GRAVITY: ~1.19 pH: ~4.25

EVAPORATION RATE: N/A **PERCENT VOLATILE BY WEIGHT:** ~65 %

APPEARANCE AND ODOR: Greenish/brown, acetic acid odor.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: None Flammable Limits: LEL: NA UEL: NA

Extinguishing Media: Media appropriate for surrounding fire.

Special Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing to prevent

contact with skin and eyes.

Unusual Fire and Explosions Hazards: Fire or excessive heat may cause hazardous decomposition prod-

ucts.

SECTION V - Health Hazard Data

TLV (ACGIH): Acetic acid, 10 ppm (TWA).

Effects of Overexposure:

Inhalation: May cause irritation of respiratory tract. Expected to be a low hazard under normal conditions.

Eyes: May cause severe irritation and possible burns.

Skin: May cause severe irritation.

Ingestion: Do not take internally. May cause severe irritation and possible burns to the upper digestive tract.

Emergency First Aid Procedures:

Eyes: Flush with large amounts of water for 15 minutes. Seek medical attention. **Skin:** Wash skin with soap and water. If irritation occurs, seek medical attention.

Ingestion: Drink 1-2 glasses of water. **DO NOT** induce vomiting. Seek medical attention immediately giving

full details of amount ingested and toxicity.

Inhalation: Move to fresh air.

Carcinogenicity: N/A • Teratogenicity: N/A • Reproductive Toxicity: N/A • Mutagenicity: N/A • Synergis-

tic Products: N/A

Stability: Stable.

Incompatibility: Metals and strong oxidizers.

Hazardous Decomposition Products: Thermal decomposition may produce hydrogen bromide gas, ammonia,

and oxides of nitrogen.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Do not store near strong oxidizers.

SECTION VII - Spill or Leak Procedure

Steps to be taken in Case Material is Released or Spilled: Wear protective clothing as specified in Section VIII. If federal, state and local laws permit, flush to the sewer with large amounts of water.

Waste Disposal: If federal, state and/or local laws permit, flush to sewer with large amounts of water. Otherwise dispose of contaminated product and materials used in cleaning up the spill in a manner approved for this material. Consult proper federal, state and/or local regulatory agencies to ascertain proper disposal procedures.

SECTION VIII - Special Protection Information

Respiratory Protection (Specify Type): If TLV or PEL limits are exceeded, use an appropriate respirator.

Ventilation: Good local mechanical ventilation should be sufficient.

Protective Equipment:

Gloves: Impervious gloves. **Eyes:** Wear protective goggles.

Other: As necessary to prevent skin contact. Eyewash facilities in vicinity of use. The routine use of a non-

alkaline type hand cleaner will minimize the possibility of an allergic skin reaction.

SECTION IX - Special Precautions

Precautions to be taken in Handling and Storage: Do not store or consume food, drink and tobacco in area. Do not store near strong oxidizers or metal containers. Wash thoroughly after use.



September 1,1990

Health	1
Flammability	0
Reactivity	0
Personal Protection	В

Trebla Chemical 8417 Chapin Industrial Drive St. Louis, MO 63114 800-325-4404 314-423-1919 FAX 314-423-3914

MATERIAL SAFETY DATA SHEET

SECTION I - General Information

Product Name: Trelux - K Film Fixer **Catalog Number:** 70FX712, 70CN702

Formula: Aqueous Solution

SECTION II - Product and Hazardous Ingredients Information

SARA

<u>ITEM</u>	<u>CAS #</u>	<u>PERCENT</u>	<u>PEL</u>	<u>RQ / TPQ</u>
Ammonium Thiosulfate	7783-18-8	40-45	N/A	N/A N/A
Sodium Sulfite	7757-83-7	5-10	N/A	N/A N/A
Water	7732-18-5	N/A	N/A	N/A N/A

SECTION III - Physical Data

BOILING POINT: >212° F VAPOR PRESSURE (mmHg): 17
VAPOR DENSITY (mmHg): 0.6 SOLUBILITY IN WATER: Complete

SPECIFIC GRAVITY: 1.31 pH: ~ 7.2

PERCENT VOLATILE BY WEIGHT: ~ 52% EVAPORATION RATE: N/A APPEARANCE AND ODOR: Clear light yellow color, slight ammonia odor.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: None Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Use method appropriate for surrounding fire.

Special Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing to prevent

contact with skin and eyes.

Unusual Fire and Explosions Hazards: When heated to decomposition, it can emit toxic fumes of ammonia

and SO_x .

SECTION V - Health Hazard Data

TLV (ACGIH): N/A

Effects of Overexposure:

Inhalation: Expected to be a low hazard under normal conditions.

Eyes: May cause irritation.

Skin: Repeated and prolonged contact may cause irritation.

Ingestion: Do not take internally. Expected to be a low hazard. May cause Nausea.

Emergency First Aid Procedures:

Eyes: Flush with large amounts of water for 15 minutes. Seek medical attention. **Skin:** Wash skin with soap and water. If irritation occurs, seek medical attention.

Ingestion: Induce vomiting. Seek medical attention immediately giving full details of amount ingested and

toxicity.

Inhalation: Move to fresh air.

NON-CARCINOGENIC: • Teratogenicity: N/A • Reproductive Toxicity: N/A • Mutagenicity: N/A • Syner-

gistic Products: N/A

Stability: Stable.

Incompatibility: Strong acids, strong alkalis.

Hazardous Decomposition Products: When heated to decomposition, it can emit toxic fumes of ammonia and SO_x . Contact with strong acids will release SO_2 and contact with strong alkalis will release ammonia.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Do not store near strong acids or strong alkalis.

SECTION VII - Spill or Leak Procedure

Steps to be taken in Case Material is Released or Spilled: Wear protective clothing as specified in Section VIII. If federal, state and local laws permit, flush to the sewer with large amounts of water.

Waste Disposal: If federal, state and/or local laws permit, flush to sewer with large amounts of water. Otherwise dispose of contaminated product and materials used in cleaning up the spill in a manner approved for this material. Consult proper federal, state and/or local regulatory agencies to ascertain proper disposal procedures.

SECTION VIII - Special Protection Information

Respiratory Protection (Specify Type): Should not be necessary under normal conditions.

Ventilation: Good local mechanical ventilation should be sufficient.

Protective Equipment:
Gloves: Impervious gloves.
Eyes: Wear protective goggles.

Other: As necessary to prevent skin contact. Eyewash facilities in vicinity of use.

SECTION IX - Special Precautions

Precautions to be taken in Handling and Storage: Do not store near strong acids or strong alkalis. Wash thoroughly after use.



Health	2
Flammability	0
Reactivity	0
Personal Protection	В

Trebla Chemical 8417 Chapin Industrial Drive St. Louis, MO 63114 800-325-4404 314-423-1919 FAX 314-423-3914

MATERIAL SAFETY DATA SHEET

SECTION I - General Information

Product Name: Trelux-K Film Stabilizer **Catalog Number:** 70ST713, 70CN702

Formula: Aqueous Solution

SECTION II - Product and Hazardous* Ingredients Information

				SAKA
<u>ITEM</u>	CAS#	PERCENT	<u>PEL</u>	RQ / TPQ
* Formaldehyde	50-00-0	35-40	0.75 ppm(TWA)	100#/500#
* Methanol	67-56-1	5-10	200 ppm(TWA)	N/A N/A

SECTION III - Physical Data

BOILING POINT: >212° F VAPOR PRESSURE (mmHg): ~20 VAPOR DENSITY (mmHg): ~0.83 SOLUBILITY IN WATER: Complete

SPECIFIC GRAVITY: 1.08 pH: ~ 4.0

EVAPORATION RATE: N/A **PERCENT VOLATILE BY WEIGHT:** ~ 85 %

APPEARANCE AND ODOR: Clear, colorless, Formaldehyde odor.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: N/A Flammable Limits: LEL: NA UEL: NA

Extinguishing Media: Water spray, dry chemical, CO₂.

Special Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing to prevent

contact with skin and eyes.

Unusual Fire and Explosions Hazards: None Known.

SECTION V - Health Hazard Data

TLV (ACGIH): Formaldehyde, 3/10 ppm (TLV-C). Methanol, 200 ppm (TWA).

Effects of Overexposure:

Inhalation: Expected to be a low hazard under normal conditions.

Eves: May cause severe irritation.

Skin: Repeated and prolonged contact may cause irritation.

Ingestion: Do not take internally. Causes Nausea, violent vomiting and diarrhea which can lead to collapse.

Emergency First Aid Procedures:

Eyes: Flush with large amounts of water for 15 minutes. Seek medical attention. **Skin:** Wash skin with soap and water. If irritation occurs, seek medical attention.

Ingestion: Induce vomiting. Seek medical attention immediately giving full details of amount ingested and

toxicity.

Inhalation: Move to fresh air.

Suspected Carcinogen: Formaldehyde • **Teratogenicity:** Lungs; formaldehyde • **Reproductive Toxicity:** N/A • **Mutagenicity:** Lungs; formaldehyde • **Synergistic Products:** N/A

Stability: Stable.

Incompatibility: Strong oxidizers.

Hazardous Decomposition Products: None Known.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Do not store near strong oxidizers.

SECTION VII - Spill or Leak Procedure

Steps to be taken in Case Material is Released or Spilled: Wear protective clothing as specified in Section VIII. If federal, state and local laws permit, flush to the sewer with large amounts of water.

Waste Disposal: If federal, state and/or local laws permit, flush to sewer with large amounts of water. Otherwise dispose of contaminated product and materials used in cleaning up the spill in a manner approved for this material. Consult proper federal, state and/or local regulatory agencies to ascertain proper disposal procedures.

SECTION VIII - Special Protection Information

Respiratory Protection (Specify Type): If TLV or PEL limits are exceeded, use a formaldehyde respirator.

Ventilation: Good local mechanical ventilation should be sufficient.

Protective Equipment:
Gloves: Impervious gloves.

Eyes: Wear protective goggles.

Other: As necessary to prevent skin contact. Eyewash facilities in vicinity of use. The routine use of a non-

alkaline type hand cleaner will minimize the possibility of an allergic skin reaction.

SECTION IX - Special Precautions

Precautions to be taken in Handling and Storage: Do not store or consume food, drink or tobacco in area. Store above 40° F. Wash thoroughly after use.