



March 09, 1998

Health	2
Flammability	0
Reactivity	0
Personal Protection	B

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

SECTION I - General Information

Product Name: Trecon-K TriPhase RA Developer Replenisher

Catalog Number: 70RA716

Formula: Aqueous Solution

SECTION II - Product and *Hazardous Ingredients Information

<u>Concentrate</u>	<u>CAS #</u>	<u>PERCENT</u>	<u>PEL</u>	<u>SARA</u> <u>RQ / TPQ</u>	
4-(N-Ethyl-N-2-Methane Sulfonylamino Ethyl)-2-Phenylene Diamine (CD-3)25646-71-3		5-10	N/A	N/A	N/A
Diethylhydroxylamine	3710-84-7	1-5	N/A	N/A	N/A
Potassium Carbonate	584-08-7	15-20	N/A	N/A	N/A
* Potassium Hydroxide	1310-58-3	1-5	N/A	N/A	N/A
Poly (maleic acid)	N/A	1-5	N/A	N/A	N/A
Proprietary	N/A	5-10	5 ppm	N/A	N/A
Water	7732-18-5	55	N/A	N/A	N/A
Working Solution					
4-(N-Ethyl-N-2-Methane Sulfonylamino Ethyl)-2-Phenylene Diamine (CD-3)25646-71-3		<1	N/A	N/A	N/A
Diethylhydroxylamine	3710-84-7	<1	N/A	N/A	N/A
Potassium Carbonate	584-08-7	1-5	N/A	N/A	N/A
* Potassium Hydroxide	1310-58-3	<1	N/A	N/A	N/A
Poly (maleic acid)	N/A	<1	N/A	N/A	N/A
Proprietary	N/A	<1	5 ppm	N/A	N/A
Water	7732-18-5	95-100	N/A	N/A	N/A

SECTION III - Physical Data

Concentrate

BOILING POINT: >212° F VAPOR PRESSURE (mmHg): ~18
VAPOR DENSITY (mmHg): ~0.60 SOLUBILITY IN WATER: Complete
SPECIFIC GRAVITY: N/A pH: N/A
EVAPORATION RATE: N/A PERCENT VOLATILE BY WEIGHT: ~ 55 %
APPEARANCE AND ODOR: Light yellow when not stratified, amine odor.

Working Solution

BOILING POINT: >212° F VAPOR PRESSURE (mmHg): ~18
VAPOR DENSITY (mmHg): ~0.60 SOLUBILITY IN WATER: Complete
SPECIFIC GRAVITY: 1.028 pH: 10.70
EVAPORATION RATE: N/A PERCENT VOLATILE BY WEIGHT: ~ 99 %
APPEARANCE AND ODOR: Light yellow, amine odor.

SECTION IV - Fire and Explosion Hazard Data

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

Extinguishing Media: Use water spray, dry chemical, CO₂, foam.

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 products.

SECTION V - Health Hazard Data

Effects of Overexposure:

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

Eyes: Vapor may cause transient irritation. Contact may cause severe burns.

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

Ingestion: Do not take internally. Harmful if swallowed. May cause severe burns to upper digestive tract.

Emergency First Aid Procedures:

Inhalation: Move to fresh air.

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.

TLV (ACGIH): Potassium Hydroxide, 2 mg/m³. SO₂ gas (if released), 2 ppm. Proprietary ingredient (vapor), 4.3 ppm.

Carcinogenicity: N/A • **Teratogenicity:** N/A • **Reproductive Toxicity:** N/A • **Mutagenicity:** N/A • **Synergistic Products:** N/A

SECTION VI - Reactivity Data

Stability: Stable.

Incompatibility: Strong oxidizers and strong acids.

Hazardous Decomposition Products: Combustion will produce carbon monoxide and carbon dioxide. Oxides of nitrogen and sulfur dioxide may also be produced.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Keep container closed. Keep away from strong oxidizers and 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.

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. Wash thoroughly after use. Refer to section VI, incompatibility.

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August 2, 1993

Health	1
Flammability	0
Reactivity	0
Personal Protection	B

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MATERIAL SAFETY DATA SHEET

SECTION I - General Information

Product Name: Trecon-K RA Bleach-fix, Part A
Catalog Number: 70RA716
Formula: Aqueous Solution

SECTION II - Product and *Hazardous Ingredients Information

<u>ITEM</u>	<u>CAS #</u>	<u>PERCENT</u>	<u>PEL</u>	<u>SARA</u>	
				<u>RQ /</u>	<u>TPQ</u>
Ammonium Thiosulfate	7783-18-8	40-45	N/A	N/A	N/A
Sodium Metabisulfite	7681-57-4	5-10	5mg/m3	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: 1.28 **pH:** ~ 5.5
EVAPORATION RATE: N/A **PERCENT VOLATILE BY WEIGHT:** ~51 %
APPEARANCE AND ODOR: Clear light yellow color, sulfur dioxide odor.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: None **Flammable Limits: LEL:** NA **UEL:** NA
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): Sodium Metabisulfite (5mg/m3).

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.

Carcinogenicity: N/A • **Teratogenicity:** N/A • **Reproductive Toxicity:** N/A • **Mutagenicity:** NA • **Synergistic Products:** N/A

SECTION VI - Reactivity Data

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 SO₂ 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.

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August 10, 1999

Health	1
Flammability	0
Reactivity	0
Personal Protection	B

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MATERIAL SAFETY DATA SHEET

SECTION I - General Information

Product Name: Trecon-K RA Bleach-fix, Part B
Catalog Number: 70RA716
Formula: Aqueous Solution

SECTION II - Product and *Hazardous Ingredients Information

ITEM	CAS #	PERCENT	PEL	SARA	
				RQ	TPQ
Ferric Ammonia EDTA	021265-50-9	30-35	N/A	N/A	N/A
Acetic Acid	64-19-7	1-5	10 ppm(TWA)	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 DENSITY (mmHg): ~0.6
SPECIFIC GRAVITY: 1.35
EVAPORATION RATE: N/A
APPEARANCE AND ODOR: Red brown, Ammonia odor.

VAPOR PRESSURE (mmHg): ~ 17.0
SOLUBILITY IN WATER: Complete
pH: ~ 5.77
PERCENT VOLATILE BY WEIGHT: ~ 65 %

SECTION IV - Fire and Explosion Hazard Data

Flash Point: None **Flammable Limits:** **LEL:** N/A **UEL:** N/A
Extinguishing Media: Water spray, alcohol resistant foam, CO₂, dry chemical.
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 sufficient to evaporate water may cause oxides of nitrogen to be formed during combustion.

SECTION V - Health Hazard Data

TLV (ACGIH): Acetic Acid, 10 ppm(TWA)
Effects of Overexposure:
Inhalation: Expected to be a low hazard under normal conditions.
Eyes: Vapors may cause slight irritation. Contact causes irritation.
Skin: Prolonged or repeated contact may result in irritation.
Ingestion: Expected to be a low hazard. May cause nausea.

Emergency First Aid Procedures:

Eyes: Flush with water for 15 minutes. Seek medical attention.
Skin: Flush with water. If irritation occurs, call physician.
Ingestion: Drink water or milk. Induce vomiting and seek medical attention.
Inhalation: Move to fresh air.

Carcinogenicity: N/A • **Teratogenicity:** N/A • **Reproductive Toxicity:** N/A • **Mutagenicity:** N/A • **Synergistic Products:** N/A

SECTION VI - Reactivity Data

Stability: Avoid evaporation to dryness.

Incompatibility: Contact with carbon steel produces hydrogen.

Hazardous Decomposition Products: Material decomposes into ammonia and nitrogen oxides under fire conditions.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Do not store in temperatures above 100° F.

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 facility in vicinity of use.

SECTION IX - Special Precautions

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

The information contained in this material safety data sheet is furnished without warranty of any kind. The user should consider this data a supplement to other information gathered and must make independent determination of suitability and completeness of information from this and other sources to assure proper use and disposal of this materials and the health and safety of employees and customers. This statement is incorporated as part of this Material Safety Data Sheet.



Health	2
Flammability	0
Reactivity	0
Personal Protection	B

Trebla
 8417 Chapin Industrial Drive
 St. Louis, MO 63114
 Phone 1-800-325-4404

March 09, 1998

MATERIAL SAFETY DATA SHEET

SECTION I - General Information

Product Name: TriPhase RA Developer Replenisher

Catalog Number: 30DE380, 30DE381

Formula: Aqueous Solution

SECTION II - Product and *Hazardous Ingredients Information

<u>Concentrate</u>	<u>CAS #</u>	<u>PERCENT</u>	<u>PEL</u>	<u>SARA</u> <u>RQ / TQP</u>	
4-(N-Ethyl-N-2-Methane Sulfonylamino Ethyl)-2-Phenylene Diamine (CD-3)	25646-71-3	5-10	N/A	N/A	N/A
Diethylhydroxylamine	3710-84-7	1-5	N/A	N/A	N/A
Potassium Carbonate	584-08-7	15-20	N/A	N/A	N/A
* Potassium Hydroxide	1310-58-3	1-5	N/A	N/A	N/A
Poly (maleic acid)	N/A	1-5	N/A	N/A	N/A
Proprietary	N/A	5-10	5 ppm	N/A	N/A
Water	7732-18-5	55	N/A	N/A	N/A

Working Solution

4-(N-Ethyl-N-2-Methane Sulfonylamino Ethyl)-2-Phenylene Diamine (CD-3)	25646-71-3	<1	N/A	N/A	N/A
Diethylhydroxylamine	3710-84-7	<1	N/A	N/A	N/A
Potassium Carbonate	584-08-7	1-5	N/A	N/A	N/A
* Potassium Hydroxide	1310-58-3	<1	N/A	N/A	N/A
Poly (maleic acid)	N/A	<1	N/A	N/A	N/A
Proprietary	N/A	<1	5 ppm	N/A	N/A
Water	7732-18-5	95-100	N/A	N/A	N/A

SECTION III - Physical Data

Concentrate

BOILING POINT: >212° F
 VAPOR DENSITY(mmHg): ~0.60
 SPECIFIC GRAVITY: N/A
 EVAPORATION RATE: N/A
 APPEARANCE AND ODOR: Light yellow when not stratified, amine odor.

VAPOR PRESSURE (mmHg): ~18
 SOLUBILITY IN WATER: Complete
 pH: N/A
 PERCENT VOLATILE BY WEIGHT: ~ 55 %

Working Solution

BOILING POINT: >212° F
 VAPOR DENSITY(mmHg): ~0.60
 SPECIFIC GRAVITY: 1.028
 EVAPORATION RATE: N/A
 APPEARANCE AND ODOR: Light yellow, amine odor.

VAPOR PRESSURE (mmHg): ~18
 SOLUBILITY IN WATER: Complete
 pH: 10.70
 PERCENT VOLATILE BY WEIGHT: ~ 99 %

SECTION IV - Fire and Explosion Hazard Data

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

Extinguishing Media: Use water spray, dry chemical, CO₂, foam.

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 products.

SECTION V - Health Hazard Data

Effects of Overexposure:

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

Eyes: Vapor may cause transient irritation. Contact may cause severe burns.

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

Ingestion: Do not take internally. Harmful if swallowed. May cause severe burns to upper digestive tract.

Emergency First Aid Procedures:

Inhalation: Move to fresh air.

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.

TLV (ACGIH): Potassium Hydroxide, 2 mg/m³. SO₂ gas (if released), 2 ppm. Proprietary ingredient (vapor), 4.3 ppm.

Carcinogenicity: N/A • **Teratogenicity:** N/A • **Reproductive Toxicity:** N/A • **Mutagenicity:** N/A • **Synergistic Products:** N/A

SECTION VI - Reactivity Data

Stability: Stable.

Incompatibility: Strong oxidizers and strong acids.

Hazardous Decomposition Products: Combustion will produce carbon monoxide and carbon dioxide. Oxides of nitrogen and sulfur dioxide may also be produced.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Keep container closed. Keep away from strong oxidizers and 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.

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.