SAFETY DATA SHEET

Section 1. Product and Company Identification

Manufacturer: Poly Scientific R&D Corp
70 Cleveland Ave
Bay Shore, NY 11706
631-586-0400
www.polyrnd.com
polyrnd@polyrnd.com

Item Number: S294-1

Common Name: Zenker Fluid Modified Contains Zinc Chloride

Intended Use: In Vitro Diagnostic use. Laboratory Use Only

Section 2. Hazard Identification

272 Oxidising liquids; Oxidising solids Cat 2
301 Acute toxicity, oral Cat 3
314 Skin corrosion/irritation Cat 1A, B, C
330 Acute toxicity, inhalation Cat 1, 2
340 Germ cell mutagenicity Cat 1A, 1B
350 Carcinogenicity Cat 1A, 1B
360 Reproductive toxicity Cat 1A, 1B
370 Specific target organ toxicity, single exposure Cat 1

Danger: May intensify fire; Oxidizer. Toxic if swallowed. Causes severe skin burns and eye damage. Fatal if inhaled. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces/clothing/combustible materials. No smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands/skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Do not get in eyes or on skin/clothing. In case of inadequate ventilation wear respiratory protection. Keep container tightly closed, locked up in well ventilated area and cool. Keep/store away from clothing/combustible materials. Take precaution to avoid mixing with combustibles. In case of fire: Use water to extinguish. Do not used dry chemicals or foams for extinction. CO2 or Halon may provide limited control.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do not induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash skin with soap/water/shower. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. If exposed: Call a POISON CENTER or doctor/physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If having respiratory symptoms: Immediately call a POISON CENTER or doctor/physician.

Hazards not otherwise covered by GHS: None

Section 3. Composition Information

Exposure Limits (A blank value indicates no information available)

Component | CAS# | PEL (mg/m³) | STEL (mg/m³) | CEIL (mg/m³) | Concentration Range
--- | --- | --- | --- | --- | ---
Zinc Chloride | 7646-85-7 | 2.00 | 1.00 | 0-5% |
Potassium Dichromate | 7780-50-9 | 0.05 | 0-5% |

Section 4. First Aid Measures

Eye Contact: Check for and remove contact lenses. Wash with large amounts of water for 15 minutes. Seek medical attention.

Skin Contact: Remove contaminated clothing and shoes. Wash the affected area with large amounts with soap and water. Seek medical attention.

Ingestion: Give two glasses of water to a conscious victim. Do not induce vomiting. Seek medical attention.

Inhalation: Move person to fresh air. If necessary give CPR; warning this could pose a risk of exposure to the rescue breather. Seek medical attention.

The most important known symptoms and effects are described in section 2 and/or section 11.

Section 5. Fire Fighting Measures

Extinguishing Media: Dry Chemical, Carbon Dioxide, Water Spray, or Foam

Special Fire and Explosion Remarks: N/A

Section 6. Accidental Release Measures

Spill Cleanup and Disposal Special: Pick up spill with absorbent vermiculite

Spill Cleanup: Take up spills with absorbant material and containerize for proper disposal. Use proper PPE as per section 8. Provide ventilation.

Section 7. Handling and Storage

Storage and Handling Special: N/A

Storage and handling: Keep container tightly closed. Store in a cool, dry area and protect from physical damage.

Section 8. Exposure Controls/Personal Protection

Personal Protective Equipment: Safety Glasses, Gloves, Vapor Respirator

This information is provided as a guide but proper PPE can only be determined by the end user and their situation.

Engineering Controls: Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the work-station.
SAFETY DATA SHEET

Section 9. Physical and Chemical Properties
Appearance: red orange
Odor: N/A
Odor Threshold: N/A
pH: N/A
Melting Point: N/A
Boiling Point: N/A
Flash Point (F) TCC: N/A

Evaporation Rate: N/A
Upper Flammability Limit (%): N/A
Lower Flammability Limit (%): N/A
Specific Gravity (@20°C): N/A
Vapor Pressure (mm Hg): N/A
Vapor Density (Air=1): N/A
Relative Density: N/A
Water Soluable?: Yes
Volatile Percent: N/A
Partition Coefficient: n-octanol/water: N/A
Auto Ignition Temp.: N/A
Decomposition Temp: N/A
Viscosity: N/A

Section 10. Stability and Reactivity
Special Remarks on Stability: Stable
Special Remarks on Reactivity: N/A
Water Reactive: No

Section 11. Toxicological Information
Routes of Entry: Inhalation, Skin Absorption, Ingestion
Animal Toxicity: Potassium Dichromate: Acute Oral (LD₅₀) 190 mg/kg (Mouse); Sodium Sulfate: Acute Oral (LD₅₀) 5989 mg/kg (Mouse); Zinc Chloride: Acute Oral (LD₅₀) 350 mg/kg (Rat)

Human Toxic Effects: Target Organs: Respiratory System, Eyes, Liver, Kidneys, Skin, GI System, GI Tracts
Potential Acute Health Effects: Hazardous in case of inhalation, eye contact, skin contact, ingestion
Potential Chronic Health Effects: Potassium Dichromate: NTP Code 1

Section 12. Ecological Information
Ecological Information: N/A

Section 13. Disposal Considerations
Waste Disposal: Dispose of in accordance with local, state and federal laws.

Section 14. Transport Information
DOT Identification: UN1840; Zinc Chloride, Solution; 8; III

Section 15. Regulatory Information
State Regulations: New York release reporting list: Zinc Chloride

Section 16. Other Information
Review Date: 12/1/2015
Reviewed by: ddi
MSDS Group Id: 121
Notice: This MSDS applies only to the material as packaged. If the material is altered by any means it may pose risks not mentioned here. It is the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use.
While this MSDS is based on reliable technical data, Poly Scientific R&D Corp. assumes no responsibility for the completeness or accuracy of the information contained herein.
SAFETY DATA SHEET

Section 1. Product and Company Identification

Manufacturer:
Poly Scientific R&D Corp
70 Cleveland Ave
Bay Shore, NY 11706
631‐586‐0400
www.polyrnd.com
polyrnd@polyrnd.com

Item Number:
s254‐1

Common Name:
Phosphotungstic Acid Hematoxylin (PTAH)

Intended Use:
In Vitro Diagnostic use. Laboratory Use Only

IN CASE OF EMERGENCY, CONTACT: CHEMTREC (24HR) 800‐424‐9300

Section 2. Hazard Identification

314 Skin corrosion/irritation Cat 1A, B, C

Danger
Causes severe skin burns and eye damage

Do not breathe dust or mist. Wash hands/skin thoroughly after handling.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store locked up. Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise covered by GHS: None

Section 3. Composition Information

Exposure Limits (A blank value indicates no information available)

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>PEL(mg/m³)</th>
<th>STEL(mg/m³)</th>
<th>CEIL(mg/m³)</th>
<th>Concentration Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Permangenate</td>
<td>7722‐64‐7</td>
<td>0‐5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphotungstic Acid</td>
<td>12501‐23‐4</td>
<td>0‐5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematoxylin</td>
<td>517‐28‐2</td>
<td>0‐5%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

Eye Contact:
Check for and remove contact lenses. Wash with large amounts of water for 15 minutes. Seek medical attention.

Skin Contact:
Remove contaminated clothing and shoes. Wash the affected area with large with soap and water. Seek medical attention.

Ingestion:
Give two glasses of water to a conscious victim. Do not induce vomiting. Seek medical attention.

Inhalation:
Move person to fresh air. If necessary give CPR; warning this could pose a risk of exposure to the rescue breather. Seek medical attention.

The most important known symptoms and effects are described in section 2 and/or section 11.

Section 5. Fire Fighting Measures

Extinguishing Media:
Dry Chemical, Carbon Dioxide, Alcohol Foam, Carbon Dioxide

Special Fire and Explosion Remarks:
N/A

Section 6. Accidental Release Measures

Spill Cleanup:
Take up spills with absorbant material and containerize for proper disposal. Use proper PPE as per section 8. Provide ventilation.

Special:
Pick up spill with absorbent vermiculite

Spill Cleanup

Section 7. Handling and Storage

Storage and Handling Special:
N/A

Storage and handling:
Keep container tightly closed. Store in a cool, dry area and protect from physical damage.

Section 8. Exposure Controls/Personal Protection

Personal Protective Equipment:
Safety Glasses, Gloves, Synthetic Apron

This information is provided as a guide but proper PPE can only be determined by the end user and their situation.

Engineering Controls:
Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the work‐station.

Section 9. Physical and Chemical Properties

Appearance:
clear, colorless

Odor:
N/A

Odor Threshold:
N/A

pH:
N/A

Melting Point:
N/A

Boiling Point:
N/A

Flash Point (F) TCC:
N/A

Evaporation Rate:
N/A

Upper Flammability Limit (%):
N/A

Lower Flammability Limit (%):
N/A

Specific Gravity (@20C):
N/A

Vapor Pressure (mm Hg):
N/A

Vapor Density (Air=1):
N/A

Relative Density:
N/A

Water Soluable?: Yes

Volatile Percent:
N/A

Partition Coefficient:
n‐octanol/water: N/A

Auto Ignition Temp.:
N/A

Decomposition Temp:
N/A

Viscosity:
N/A

Section 10. Other Information

This information is based on the technical data made available to us by the manufacturer. This information may not be complete or accurate and cannot be held responsible for any errors or omissions. It is intended to provide general guidance and should not be substituted for specific information from the manufacturer. It is the end user's responsibility to determine the suitability of this information for their specific application.
SAFETY DATA SHEET

Section 10. Stability and reactivity
Special Remarks on Stability: Stable
Special Remarks on Reactivity: N/A

Water Reactive: No

Section 11. Toxicological Information
Routes of Entry: Inhalation, Skin Absorption, Ingestion

Animal Toxicity:
- Hematoxylin: Acute Oral (TDLO) 400 gm/kg (Rat);
- Potassium Permangenate: Acute Oral (LD50) 1090 mg/kg (Rat); Subcutaneous (LD50) 50 mg/kg (Mouse);
- Phosphotungstic Acid: Acute Oral (LD50) 3300 mg/kg (Rat)

Human Toxic Effects:
- Target Organs: respiratory system, central nervous system, blood, kidneys, eyes, skin,
- Potential Acute Health Effects: Hazardous in case of inhalation, eye contact, skin contact, ingestion
- Potential Chronic Health Effects: Repeated or prolonged exposure to the substance can produce target organs damage

Section 12. Ecological Information
Ecological Information: N/A

Section 13. Disposal Considerations
Waste Disposal: Dispose of in accordance with local, state and federal laws.

Section 14. Transport Information
DOT Identification: Non Hazardous

Section 15. Regulatory Information
State Regulations:
- New York release reporting list: Potassium Permangenate

Component | CAS# | Acute | Chronic | Fire | Pressure | Reactive | SARA302 | SARA313 | CERCLA | RCRA
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
Potassium Permangenate | 7722-64-7 | No | No | No | No | No | No | No | Yes | No
Phosphotungstic Acid | 12501-23-4 | No | No | No | No | No | No | No | No | No
Hematoxylin | 517-28-2 | No | No | No | No | No | No | No | No | No

Section 16. Other Information
Review Date: 12/1/2015
Reviewed by: ddi
MSDS Group Id: 94

Notice: This MSDS applies only to the material as packaged. If the material is altered by any means it may pose risks not mentioned here.
It is the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use.
While this MSDS is based on reliable technical data, Poly Scientific R&D Corp. assumes no responsibility for the completeness or accuracy of the information contained herein.
SAFETY DATA SHEET

Section 1. Product and Company Identification
Manufacturer: Poly Scientific R&D Corp
70 Cleveland Ave
Bay Shore, NY 11706
631‐586‐0400
www.polyrnd.com
polyrnd@polyrnd.com
Item Number: s204‐1
Common Name: Gram's Iodine
Intended Use: In Vitro Diagnostic use. Laboratory Use Only

IN CASE OF EMERGENCY, CONTACT: CHEMTREC (24HR) 800‐424‐9300

Section 2. Hazard Identification
Harmful If Swallowed or Inhaled
Avoid breathing dust or vapor. May be irritating to eyes, skin, and respiratory system. Wear safety goggles and rubber gloves to avoid contact. Wash thoroughly after handling. Keep container tightly closed.

EFFECTS OF EXPOSURE: Ingestion may cause nausea and abdominal pain. Mild irritant to skin and eyes.

TARGET ORGANS: None.

FIRST AID: Call a physician at once!
For Fire: Use extinguishing media appropriate for surrounding fire.
For Spill: Eliminate ignition sources. Pick up with absorbent material and containerize for proper disposal.

Hazards not otherwise covered by GHS: None

Section 3. Composition Information

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>PEL (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>Concentration Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>No OSHA hazardous</td>
<td>0‐5%</td>
<td>50‐100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

Eye Contact: Check for and remove contact lenses. Wash with large amounts of water for 15 minutes. Seek medical attention.

Skin Contact: Remove contaminated clothing and shoes. Wash the affected area with large with soap and water. Seek medical attention.

Ingestion: Give two glasses of water to a conscious victim. Do not induce vomiting. Seek medical attention.

Inhalation: Move person to fresh air. If necessary give CPR; warning this could pose a risk of exposure to the rescue breather. Seek medical attention.

The most important known symptoms and effects are described in section 2 and/or section 11.

Section 5. Fire Fighting Measures
Extinguishing Media: N/A

Special Fire and Explosion Remarks: NA

Section 6. Accidental Release Measures
Spill Cleanup and Disposal: Special N/A
Spill Cleanup: Take up spills with absorbant material and containerize for proper disposal. Use proper PPE as per section 8. Provide ventilation.

Section 7. Handling and Storage
Storage and Handling: Special N/A
Storage and handling: Keep container tightly closed. Store in a cool, dry area and protect from physical damage.

Section 8. Exposure Controls/Personal Protection

Personal Protective Equipment: N/A
This information is provided as a guide but proper PPE can only be determined by the end user and their situation.

Engineering Controls: Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the work‐station.

Section 9. Physical and Chemical Properties

Appearance: clear brown
Odor: N/A
Odor Threshold: N/A
pH: N/A
Melting Point: N/A
Boiling Point: N/A
Flash Point (F) TCC: NA
Evaporation Rate: N/A
Upper Flammability Limit (%): NA
Lower Flammability Limit (%): NA
Specific Gravity (@20C): N/A
Vapor Pressure (mm Hg): N/A
Vapor Density (Air=1): N/A
Relative Density: N/A
Water Soluable?: Yes
Volatile Percent: N/A
Partition Coefficient: n‐octanol/water: N/A
Auto Ignition Temp.: N/A
Decomposition Temp.: N/A
Viscosity: N/A
SAFETY DATA SHEET

Section 10. Stability and reactivity

Special Remarks on Stability: N/A

Special Remarks on Reactivity: N/A

Water Reactive: No

Section 11. Toxicological Information

Routes of Entry: N/A

Animal Toxicity: N/A

Human Toxic Effects: N/A

Potential Acute Health Effects: N/A

Potential Chronic Health Effects: N/A

Section 12. Ecological Information

Ecological Information: N/A

Section 13. Disposal Considerations

Waste Disposal: Dispose of in accordance with local, state and federal laws.

Section 14. Transport Information

DOT Identification: Non Hazardous

Section 15. Regulatory Information

State Regulations: New York release reporting list: N/A

Sara Section 311 Reporting

Component | CAS# | Acute | Chronic | Fire | Pressure | Reactive | SARA302 | SARA313 | CERCLA | RCRA
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
No OSHA hazardous | No | No | No | No | No | No | No | No | No | No

Components
---
No

Section 16. Other Information

Review Date: 12/4/2015

Reviewed by: dd

MSDS Group Id: 2

Notice: This MSDS applies only to the material as packaged. If the material is altered by any means it may pose risks not mentioned here. It is the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on reliable technical data, Poly Scientific R&D Corp. assumes no responsibility for the completeness or accuracy of the information contained herein.
SAFETY DATA SHEET

Section 1. Product and Company Identification

Manufacturer:
Poly Scientific R&D Corp
70 Cleveland Ave
Bay Shore, NY 11706
631‐586‐0400
www.polyrnd.com
polyrnd@polyrnd.com

Item Number:
s1895‐1

Common Name:
Sodium Thiosulfate 5% Aqueous

Intended Use:
In Vitro Diagnostic use. Laboratory Use Only

IN CASE OF EMERGENCY, CONTACT: CHEMTREC (24HR) 800‐424‐9300

Section 2. Hazard Identification

Harmful If Swallowed or Inhaled
Avoid breathing dust or vapor. May be irritating to eyes, skin, and respiratory system. Wear safety goggles and rubber gloves to avoid contact. Wash thoroughly after handling. Keep container tightly closed.

EFFECTS OF EXPOSURE: Ingestion may cause nausea and abdominal pain. Mild irritant to skin and eyes.

TARGET ORGANS: None.

FIRST AID: Call a physician at once!

For Fire: Use extinguishing media appropriate for surrounding fire.

For Spill: Eliminate ignition sources. Pick up with absorbent material and containerize for proper disposal.

Hazards not otherwise covered by GHS: None

Section 3. Composition Information

Exposure Limits (A blank value indicates no information available)

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>PEL(mg/m3)</th>
<th>STEL(mg/m3)</th>
<th>CEIL(mg/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Thiosulfate</td>
<td>10102‐17‐7</td>
<td>0‐5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

Eye Contact:
Check for and remove contact lenses. Wash with large amounts of water for 15 minutes. Seek medical attention.

Skin Contact:
Remove contaminated clothing and shoes. Wash the affected area with large amounts of soap and water. Seek medical attention.

Ingestion:
Give two glasses of water to a conscious victim. Do not induce vomiting. Seek medical attention.

Inhalation:
Move person to fresh air. If necessary give CPR; warning this could pose a risk of exposure to the rescue breather. Seek medical attention.

The most important known symptoms and effects are described in section 2 and/or section 11.

Section 5. Fire Fighting Measures

Extinguishing Media:
Dry Chemical, Carbon Dioxide, Water Spray, Alcoholic Foam

Special Fire and Explosion Remarks:
N/A

Section 6. Accidental Release Measures

Spill Cleanup:
Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

Special:
Take up spills with absorbent material and containerize for proper disposal. Use proper PPE as per section 8. Provide ventilation.

Section 7. Handling and Storage

Storage and Handling:
Keep container tightly closed. Store in a cool, dry area and protect from physical damage.

Section 8. Exposure Controls/Personal Protection

Personal Protective Equipment:
Safety glasses, chemical resistant apron, gloves, respirator

This information is provided as a guide but proper PPE can only be determined by the end user and their situation.

Engineering Controls:
Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the work‐station.

Section 9. Physical and Chemical Properties

Appearance:
clear, colorless

Odor:
Odorless

Odor Threshold:
N/A

pH:
N/A

Melting Point:
N/A

Boiling Point:
N/A

Flash Point (F) TCC:
N/A

Evaporation Rate:
N/A

Upper Flammability Limit (%):
N/A

Lower Flammability Limit (%):
N/A

Specific Gravity (@20°C):
N/A

Vapor Pressure (mm Hg):
N/A

Vapor Density (Air=1):
N/A

Relative Density:
N/A

Water Soluable?:
Yes

Volatile Percent:
N/A

Partition Coefficient:
Octanol/water: N/A

Auto Ignition Temp.:
N/A

Decomposition Temp.:
N/A

Viscosity:
N/A
SAFETY DATA SHEET

Section 10. Stability and reactivity
Special Remarks on Stability: Stable
Special Remarks on Reactivity: N/A

Water Reactive: No

Section 11. Toxicological Information
Routes of Entry: Inhalation, Ingestion

Animal Toxicity: N/A

Human Toxic Effects:
- Target Organs: Skin, Eyes, Respiratory System
- Potential Acute Health Effects: N/A
- Potential Chronic Health Effects: N/A

Section 12. Ecological Information
Ecological Information: N/A

Section 13. Disposal Considerations
Waste Disposal: Dispose of in accordance with local, state and federal laws.

Section 14. Transport Information
DOT Identification: Non Hazardous

Section 15. Regulatory Information
State Regulations:
- New York release reporting list: N/A

Section 16. Other Information
Review Date: 12/2/2015
Reviewed by: ddi
MSDS Group Id: 112

Notice: This MSDS applies only to the material as packaged. If the material is altered by any means it may pose risks not mentioned here. It is the user’s responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on reliable technical data, Poly Scientific R&D Corp. assumes no responsibility for the completeness or accuracy of the information contained herein.