




**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Sulfuric Acid Solution (1N) Product Number: SSC1184	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com/sds">www.cancerdiagnostics.com/sds</a>

**Section 2. Hazards Identification**

<b>2.1 GHS Classification</b>	Skin irritation (Category 2), H315 Serious eye damage (Category 1), H318	
<b>Classification: Directive 1999/45/EC</b>		<b>C R38, R41; S26</b> EN: Corrosive DA: Ætsende DE: Ätzend EL: Διαβρωτικό ES: Corrosivo FR: Corrosif IT: Corrosivo NL: Bijtend PT: Corrosivo SV: Frätande
	For full text of R- & S- phrases: see Section 15.	


<b>2.2 Label Elements</b>	Pictogram(s):   Signal word: Danger  Hazard statement(s): H315 – Causes skin irritation H318 – Causes serious eye damage  Precautionary statement(s): P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Get immediate medical advice/attention.								
<b>NFPA</b> Scale: 0-4									
<b>HMIS (U.S.A.)</b> Scale: 0-4	<table border="1"> <tr> <td>HEALTH</td> <td>2</td> </tr> <tr> <td>FLAMMABILITY</td> <td>0</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td>0</td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td>C</td> </tr> </table>	HEALTH	2	FLAMMABILITY	0	PHYSICAL HAZARD	0	PERSONAL PROTECTION	C
HEALTH	2								
FLAMMABILITY	0								
PHYSICAL HAZARD	0								
PERSONAL PROTECTION	C								
<b>2.3 Other Hazards</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.								

### Section 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%/w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Sulfuric Acid	7664-93-9	231-639-5	 Danger. 1A. H314 Causes severe skin burns and eye damage.	≤ 3

### Section 4. First Aid Measures

#### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

See section 2.2 and 11.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**Section 5. Fire Fighting Measures**

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	No unusual fire or explosion hazards expected. Slightly explosive around oxidizing materials.
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

**Section 6. Accidental Release Measures**
**6.1 Personal precautions, protective equipment and emergency procedures**

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

**6.2 Environmental precautions**

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

**6.3 Methods and materials for containment and cleaning up**

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

**Section 7. Handling and Storage**
**7.1 Precautions for safe handling.**

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

**7.2 Conditions for safe storage, including any incompatibilities.**

Store in well ventilated area.

Keep container tightly closed.

Store at 15-30°C.

**7.3 Specific end use(s).**

See section 1.2

**Section 8. Exposure Controls / Personal Protection**

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> Sulfuric Acid <b>NIOSH REL</b> : TWA 1 mg/m <sup>3</sup> <b>OSHA PEL</b> : TWA 1 mg/m <sup>3</sup>
<b>8.2 Exposure controls</b>	<b>Personal Protective Equipment (PPE):</b> <b>Eye/Face protection.</b> Safety glasses or goggles are required. <b>Skin protection.</b> Protective clothing is required. <b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove.

	<b>Respiratory protection.</b> Avoid breathing vapor. <b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment. No additional information.
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Acidic
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

## Section 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	Oxidizers, strong bases.
<b>10.6 Hazardous Decomposition Materials</b>	Sulfuric acid fumes, sulfur oxides.

## Section 11. Toxicological Information

<b>11.1 Information on Toxicological Effects.</b>	<b>Acute Toxicity.</b> No relevant data available <b>Skin Corrosion/Irritation.</b> Irritating to skin and mucous membranes. <b>Serious Eye Damage/Irritation.</b> Corrosive to eye. <b>Respiratory or skin sensitization.</b> No relevant data available. <b>Germ Cell Mutagenicity.</b> No relevant data available.
<b>Carcinogenicity.</b>	<b>International Agency for Research on Cancer (IARC).</b> The international Agency for Research on Cancer has determined that occupational exposure to strong-inorganic-acid mists containing Sulfuric Acid is carcinogenic to humans. <b>National Toxicology Program (NTP).</b> None of the components are listed.

## Section 12. Ecological Information

<b>12.1 Toxicity</b>	<b>Fish:</b> No relevant studies identified. <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> No relevant studies identified.
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.

## Section 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

## Section 14. Transport Information

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	DOT: Not dangerous goods. ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

	DOT: Not dangerous goods.
<b>14.3 Transport Hazard Class(es)</b>	<b>DOT:</b> Not dangerous goods. <b>IATA:</b> Not dangerous goods. <b>IMDG:</b> Not dangerous goods. <b>ADR/RID:</b> Not dangerous goods.
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. DOT: Not dangerous goods.
<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> No
<b>14.6 Special Precautions for User</b>	Not applicable.

## Section 15. Regulatory Information

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	None of the components in this mixture are listed.
<b>Right To Know Components</b>	None of the components in this mixture are listed.
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<b>R38</b> EN: Irritating to skin. DA: Irriterer huden. DE: Reizt die Haut. EL: Ερεθίζει το δέρμα. ES: Irrita la piel. FR: Irritant pour la peau. IT: Irritante per la pelle. NL: Irriterend voor de huid. PT: Irriterend voor de huid. SV: Irriterar huden.  <b>R41</b> EN: Risk of serious damage to eyes. DA: Risiko for alvorlig øjensskade. DE: Gefahr ernster Augenschäden. EL: Κίνδυνος σοβαρών οφθαλμικών βλαβών. ES: Riesgo de lesiones oculares graves. FR: Risque de lésions oculaires graves. IT: Rischio di gravi lesioni oculari. NL: Gevaar voor ernstig oogletsel. PT: Risco de lesões oculares graves. SV: Risk för allvarliga ögonskador.
<b>S phrases</b>	<b>S26</b> EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. DA: Kommer stoffet i øjnene, skylles straks grundigt med vand og læge kontaktes. DE: Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren. EL: Σε περίπτωση επαφής με τα μάτια πλύνετε τα αμέσως με άφθονο νερό και ζητήστε ιατρική συμβουλή. ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico.



	<p>FR: En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste.</p> <p>IT: In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico.</p> <p>NL: Bij aanraking met de ogen onmiddellijk met overvloedig water afspoelen en deskundig medisch advies inwinnen.</p> <p>PT: Em caso de contacto com os olhos, lavar imediata e abundantemente com água e consultar um especialista.</p> <p>SV: id kontakt med ögonen, spola genast med mycket vatten och kontakta läkare.</p>
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## Section 16. Other Information

**Revision Date:** 2019-01-11

**Notice to Reader:**

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

## Sodium Thiosulfate Solution 5%

### 1. Identification


<b>1.1 Product Identifier</b>	Product Name: Sodium Thiosulfate Solution (5%) Product Number: SSC1131	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com">www.cancerdiagnostics.com</a>

### 2. Hazards Identification

<b>2.1 Classification: Regulation (EC) No 1272/2008 (CLP)</b>	Not a hazardous mixture as classified by Regulation (EC) No 1272/2008 (CLP)
<b>Classification: OSHA 29 CFR 1910.1200 HCS</b>	Not a hazardous mixture as classified by OSHA 29 CFR 1910.1200 HCS (GHS)
<b>Classification: Directive 1999/45/EC</b>	Not a hazardous mixture as classified by Directive 1999/45/EC For full text of R- & S- phrases: see Section 15.



## Sodium Thiosulfate Solution 5%

<b>2.2 Label Elements</b>	Pictogram: Not a hazardous mixture Signal word: Not a hazardous mixture. Hazard Statement(s): Not a hazardous mixture Precautionary Statements(s): Not a hazardous mixture			
<b>NFPA</b> Scale: 0-4				
<b>HMIS (U.S.A.)</b> Scale: 0-4	HEALTH	1		
	FLAMMABILITY	0		
	PHYSICAL HAZARD	0		
	PERSONAL PROTECTION	B		
<b>2.3 Other Hazards</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.			

### 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%/w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Sodium Thiosulfate	7772-98-7	231-867-5	N/A	≤5

### 4. First Aid Measures

#### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water. Get medical attention if irritation persists.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## Sodium Thiosulfate Solution 5%

### 5. Fire Fighting Measures

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	No unusual fire or explosion hazards expected.
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

### 6. Accidental Release Measures

<p><b>6.1 Personal precautions, protective equipment and emergency procedures</b> Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.</p> <p><b>6.2 Environmental precautions</b> Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.</p> <p><b>6.3 Methods and materials for containment and cleaning up</b> Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.</p>
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### 7. Handling and Storage

<p><b>7.1 Precautions for safe handling.</b> Avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapor.</p> <p><b>7.2 Conditions for safe storage, including any incompatibilities.</b> Store in well ventilated area. Keep container tightly closed. Store at 15-30°C.</p> <p><b>7.3 Specific end use(s).</b> See section 1.2</p>
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### 8. Exposure Controls / Personal Protection

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> N/A
<b>8.2 Exposure controls</b>	<p><b>Personal Protective Equipment (PPE):</b></p> <p><b>Eye/Face protection.</b> Safety glasses or goggles are required.</p> <p><b>Skin protection.</b> Protective clothing is required.</p> <p><b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove.</p> <p><b>Respiratory protection.</b> Avoid breathing vapor. <b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment. No additional information.</p>
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

## Sodium Thiosulfate Solution 5%

### 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Neutral
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

### 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	Sodium nitrate, oxidizing agents, acids, alkalis.
<b>10.6 Hazardous Decomposition Materials</b>	Sodium oxide, Hydrogen sulfide.

### 11. Toxicological Information

<b>11.1 Information on Toxicological Effects.</b>	<b>Acute Toxicity.</b> No relevant data available <b>Skin Corrosion/Irritation.</b> May be irritating to skin and mucous membranes. <b>Serious Eye Damage/Irritation.</b> May be irritating to the eyes. <b>Respiratory or skin sensitization.</b> No relevant data available.
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## Sodium Thiosulfate Solution 5%

	<b>Germ Cell Mutagenicity.</b> No relevant data available.
<b>Carcinogenicity.</b>	<b>International Agency for Research on Cancer (IARC).</b> None of the components are listed. <b>National Toxicology Program (NTP).</b> None of the components are listed.

### 12. Ecological Information

<b>12.1 Toxicity</b>	<b>Fish:</b> No relevant studies identified. <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> No relevant studies identified.
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.

### 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

### 14. Transport Information

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	<b>DOT:</b> Not dangerous goods. <b>ADR/RID:</b> Not dangerous goods. <b>IMDG:</b> Not dangerous goods. <b>IATA:</b> Not dangerous goods.
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	<b>ADR/RID:</b> Not dangerous goods. <b>IMDG:</b> Not dangerous goods. <b>IATA:</b> Not dangerous goods. <b>DOT:</b> Not dangerous goods.
<b>14.3 Transport Hazard Class(es)</b>	<b>DOT:</b> Not dangerous goods. <b>IATA:</b> Not dangerous goods. <b>IMDG:</b> Not dangerous goods. <b>ADR/RID:</b> Not dangerous goods.
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	<b>ADR/RID:</b> Not dangerous goods. <b>IMDG:</b> Not dangerous goods. <b>IATA:</b> Not dangerous goods. <b>DOT:</b> Not dangerous goods.
<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> No
<b>14.6 Special Precautions for User</b>	Not applicable.

## Sodium Thiosulfate Solution 5%

### 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	None of the components in this mixture are listed.
<b>Right To Know Components</b>	None of the components in this mixture are listed.
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<b>R36/38</b> EN: Irritating to eyes and skin. DA: Irriterer øjnene og huden DE: Reizt die Augen und die Haut. EL: Ερεθίζει τα μάτια και το δέρμα. ES: Irrita los ojos y la piel. FR: Irritant pour les yeux et la peau. IT: Irritante per gli occhi e la pelle. NL: Irriterend voor de ogen en de huid. PT: Irritante para os olhos e pele. SV: Irriterar ögonen och huden.
<b>S phrases</b>	<b>S2</b> EN: Keep out of the reach of children. DA: Opbevares utilgængeligt for børn. DE: Darf nicht in die Hände von Kindern gelangen. EL: Μακριά από παιδιά. ES: Manténgase fuera del alcance de los niños. FR: Conserver hors de la portee des enfants. IT: Conservare fuori della portata dei bambini. NL: Buiten bereik van kinderen bewaren. PT: Manter fora do alcance das crianças. SV: Förvaras oåtkomligt för barn.  <b>S24/25</b> EN: Avoid contact with skin and eyes. DA: Undgå kontakt med huden og øjnene. DE: Berührung mit den Augen und der Haut vermeiden. EL: Αποφεύγετε επαφή με το δέρμα και με τα μάτια. ES: Evítese el contacto con los ojos y la piel. FR: Éviter le contact avec la peau et les yeux. IT: Evitare il contatto con gli occhi e con la pelle. NL: Aanraking met de ogen en de huid vermijden. PT: Evitar o contacto com a pele e os olhos. SV: Undvik kontakt med huden och ögonen.

### 16. Other Information

**Revision Date:** 2019-01-11

**Notice to Reader:**


*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

## Silver Nitrate Solution 10%




### 1. Identification

<b>1.1 Product Identifier</b>	Product Name: Silver Nitrate Solution (10%) Product Number: SSC1121	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com">www.cancerdiagnostics.com</a>

### 2. Hazards Identification

<b>2.1 GHS Classification</b>	Skin irritation (Category 2) – H315 Eye irritation (Category 2A) – H319 Acute aquatic toxicity (Category 1) – H400 Chronic aquatic toxicity (Category 1) – H410	
<b>Classification: Directive 1999/45/EC</b>	 <b>Xi</b> EN: Irritant DA: Lokalirriterende DE: Reizend EL: Ερεθιστικό ES: Irritante FR: Irritant IT: Irritante NL: Irriterend PT: Irritante SV: Irriterande	

## Silver Nitrate Solution 10%

	 <p><b>N:</b>          EN: Dangerous for the environment          DA: Miljøfarlig          DE: Umweltgefährlich          EL: Επικίνδυνο για το περιβάλλον          ES: Peligroso para el medio ambiente          FR: Dangereux pour l'environnement          IT: Pericoloso per l'ambiente          NL: Milieugevaarlijk          PT: Perigoso para o ambiente          SV: Miljöfarlig</p> <p>For full text of R- &amp; S- phrases: see Section 15.</p>								
<b>2.2 Label Elements</b>	<p>Pictogram(s):</p>  <p>Signal word: Warning</p> <p>Hazard statement(s):          H315 – Causes skin irritation.          H319 – Causes serious eye irritation          H410 – Very toxic to aquatic life with long lasting effects.</p> <p>Precautionary statement(s):          P302+ P352 - IF ON SKIN: Wash with plenty of soap and water          P305 + P351 + - IF IN EYES: Rinse cautiously with water for several minutes.          P337 + P 313 - If eye irritation persists get medical advice/attention.</p>								
<b>NFPA Scale: 0-4</b>									
<b>HMIS (U.S.A.) Scale: 0-4</b>	<table border="1"> <tr> <td>HEALTH</td> <td>1</td> </tr> <tr> <td>FLAMMABILITY</td> <td>0</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td>0</td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td>B</td> </tr> </table>	HEALTH	1	FLAMMABILITY	0	PHYSICAL HAZARD	0	PERSONAL PROTECTION	B
HEALTH	1								
FLAMMABILITY	0								
PHYSICAL HAZARD	0								
PERSONAL PROTECTION	B								
<b>2.3 Other Hazards</b>	<p><b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT.  <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.</p>								





## Silver Nitrate Solution 10%

### 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%/w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Silver Nitrate	7761-88-8	231-853-9	 Danger. 2. H272 May intensify fire; oxidizer.  Warning. 4 H302 Harmful if swallowed.  Danger. 1B H314 Causes severe skin burns and eye damage.  Warning. H410 Very toxic to aquatic life with long lasting effects.	≤ 10

### 4. First Aid Measures

#### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water. Get immediate medical attention if irritation persists.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

### 5. Fire Fighting Measures

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	None known
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)



## Silver Nitrate Solution 10%

### 6. Accidental Release Measures

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

**6.2 Environmental precautions**

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

**6.3 Methods and materials for containment and cleaning up**

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

### 7. Handling and Storage

**7.1 Precautions for safe handling.**

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

**7.2 Conditions for safe storage, including any incompatibilities.**

Store in well ventilated area.

Keep container tightly closed.

Store at 2-8°C.

**7.3 Specific end use(s).**

See section 1.2

### 8. Exposure Controls / Personal Protection

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> N/A
<b>8.2 Exposure controls</b>	<b>Personal Protective Equipment (PPE):</b> <b>Eye/Face protection.</b> Safety glasses or goggles are required. <b>Skin protection.</b> Protective clothing is required. <b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. <b>Respiratory protection.</b> Avoid breathing vapor. <b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment. No additional information.
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

### 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Transparent, colorless
<b>Odor</b>	Unknown
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Unknown
<b>Melting Point/ Freezing Point</b>	Unknown

## Silver Nitrate Solution 10%

<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

### 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	Oxidizers, alkalis, antimony salts, arsenates, carbonates and phosphates.
<b>10.6 Hazardous Decomposition Materials</b>	Carbon oxides, nitrogen oxides, oxides of silver.

### 11. Toxicological Information

<b>11.1 Information on Toxicological Effects.</b>	<p><b>Acute Toxicity.</b> No relevant data available</p> <p><b>Skin Corrosion/Irritation.</b> Irritating to skin and mucous membranes.</p> <p><b>Serious Eye Damage/Irritation.</b> Seriously irritating to eye.</p> <p><b>Respiratory or skin sensitization.</b> No relevant data available.</p> <p><b>Germ Cell Mutagenicity.</b> No relevant data available.</p>
<b>Carcinogenicity.</b>	<p><b>International Agency for Research on Cancer (IARC).</b> None of the components are listed.</p> <p><b>National Toxicology Program (NTP).</b> None of the components are listed.</p>

## Silver Nitrate Solution 10%

### 12. Ecological Information

<b>12.1 Toxicity</b>	<b>Fish:</b> No relevant studies identified. <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> No relevant studies identified.
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.

### 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

### 14. Transport Information

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	DOT: 3082 ADR/RID: 3082 IMDG: 3082 IATA: 3082
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: Environmentally hazardous substance, liquid, n.o.s.(Silver nitrate) IMDG: Environmentally hazardous substance, liquid, n.o.s.(Silver nitrate) IATA: Environmentally hazardous substance, liquid, n.o.s.(Silver nitrate) DOT: Environmentally hazardous substance, liquid, n.o.s.(Silver nitrate)
<b>14.3 Transport Hazard Class(es)</b>	DOT: 9 IATA: 9 IMDG: 9 ADR/RID: 9
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	ADR/RID: III IMDG: III IATA: III DOT: III
<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> Yes
<b>14.6 Special Precautions for User</b>	Not applicable.

## Silver Nitrate Solution 10%

### 15. Regulatory Information

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	None of the components in this mixture are listed.
<b>Right To Know Components</b>	None of the components in this mixture are listed.
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<p><b>R36/38</b>            EN: Irritating to eyes and skin.            DA: Irriterer øjnene og huden            DE: Reizt die Augen und die Haut.            EL: Ερεθίζει τα μάτια και το δέρμα.            ES: Irrita los ojos y la piel.            FR: Irritant pour les yeux et la peau.            IT: Irritante per gli occhi e la pelle.            NL: Irriterend voor de ogen en de huid.            PT: Irritante para os olhos e pele.            SV: Irriterar ögonen och huden.</p> <p><b>R50/53</b>            EN: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.            DA: Meget giftig for organismer, der lever i vand; kan forårsage uønskede langtidsvirkninger i vandmiljøet.            DE: Sehr giftig für Wasserorganismen, kann in Gewässern längerfristig schädliche Wirkungen haben.            EL: Πολύ τοξικό για τους υδρόβιους οργανισμούς, μπορεί να προκαλέσει μακροχρόνιες δυσμενείς επιπτώσεις στο υδάτινο περιβάλλον.            ES: Muy tóxico para los organismos acuáticos, puede provocar a largo plazo efectos negativos en el medio ambiente acuático.            FR: Très toxique pour les organismes aquatiques, peut entraîner des effets néfastes a long terme pour l'environnement aquatique.            IT: Altamente tossico per gli organismi acquatici, può provocare a lungo termine effetti negativi per l'ambiente acquatico.            NL: Zeer vergiftig voor in het water levende organismen; kan in het aquatisch milieu op lange termijn schadelijke effecten veroorzaken.            PT: Muito tóxico para os organismos aquáticos, podendo causar efeitos nefastos a longo prazo no ambiente aquático.            SV: Mycket giftigt för vattenlevande organismer, kan orsaka skadliga långtidseffekter i vattenmiljön.</p>
<b>S phrases</b>	<p><b>S26</b>            EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.            DA: Kommer stoffet i øjnene, skylles straks grundigt med vand og læge kontaktes.            DE: Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren.            EL: Σε περίπτωση επαφής με τα μάτια πλύνετε τα αμέσως με άφθονο νερό και ζητήστε ιατρική συμβουλή.            ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico.            FR: En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste.            IT: In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico.            NL: Bij aanraking met de ogen onmiddellijk met overvloedig water afspolien en deskundig medisch advies inwinnen.</p>

## Silver Nitrate Solution 10%

	<p>PT: Em caso de contacto com os olhos, lavar imediata e abundantemente com água e consultar um especialista. SV: id kontakt med ögonen, spola genast med mycket vatten och kontakta läkare.</p> <p><b>S45</b> EN: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). DA: Ved ulykkestilfælde eller ved ildebefindende er omgående lægebehandling nødvendig; vis etiketten, hvis det er muligt. DE: Bei Unfall oder Unwohlsein sofort Arzt zuziehen (wenn möglich, dieses Etikett vorzeigen). EL: Σε περίπτωση ατυχήματος ή αν αισθανθείτε αδιαθεσία ζητήστε αμέσως ιατρική συμβουλή (δείξτε την ετικέτα αν είναι δυνατό). ES: En caso de accidente o malestar, acúdase inmediatamente al médico (si es posible, muéstresela la etiqueta). FR: En cas d'accident ou de malaise, consulter immédiatement un medecin (si possible lui montrer l'etiquette). IT: In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l'etichetta). NL: Bij een ongeval of indien men zich onwel voelt, onmiddellijk een arts raadplegen (indien mogelijk hem dit etiket tonen). PT: Em caso de acidente ou de indisposição, consultar imediatamente o médico (se possível mostrar-lhe o rótulo). SV: Vid olycksfall, illamående eller annan påverkan, kontakta omedelbart läkare. Visa om möjligt etiketten.</p> <p><b>S60</b> EN: This material and its container must be disposed of as hazardous waste. DA: Undgå udledning til miljøet. Se særlig vejledning/leverandørbrugsanvisning. DE: Dieses Produkt und sein Behälter sind als gefährlicher Abfall zu entsorgen. EL: Αποφύγετε την ελευθέρωσή του στο περιβάλλον. Αναφερθείτε σε ειδικές οδηγίες/.ελτίο δεδομένων ασφαλείας. ES: Elimínense el producto y su recipiente como residuos peligrosos. FR: Eliminer le produit et son recipient comme un dechet dangereux. IT: Questo materiale e il suo contenitore devono essere smaltiti come rifiuti pericolosi. NL: Deze stof en de verpakking als gevaarlijk afval afvoeren. PT: Este produto e o seu recipiente devem ser eliminados como resíduos perigosos. SV: Detta material och dess behållare skall tas om hand som farligt avfall.</p> <p><b>S61</b> EN: Avoid release to the environment. Refer to special instructions/Safety data sheets. DA: Undgå udledning til miljøet. Se særlig vejledning/leverandørbrugsanvisning. DE: Freisetzung in die Umwelt vermeiden. Besondere Anweisungen einholen/Sicherheitsdatenblatt zu Rate ziehen. EL: Αποφύγετε την ελευθέρωσή του στο περιβάλλον. Αναφερθείτε σε ειδικές οδηγίες/.ελτίο δεδομένων ασφαλείας. ES: Evítense su liberación al medio ambiente. Recábense instrucciones específicas de la ficha de datos de seguridad. FR: Eviter le rejet dans l'environnement. Consulter les instructions speciales/la fiche de donnees de securite. IT: Non disperdere nell'ambiente. Riferirsi alle istruzioni speciali/ schede informative in materia di sicurezza. NL: Voorkom lozing in het milieu. Vraag om speciale instructies/veiligheidskaart. PT: Evitar a libertação para o ambiente. Obter instruções específicas/fichas de segurança. SV: Undvik utsläpp till miljön. Läs särskilda instruktioner/varuinformationsblad.</p>
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### 16. Other Information

Revision Date: 2019-01-11


#### Notice to Reader:


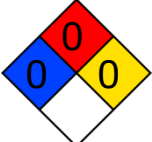
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Potassium Permanganate Solution (0.5%) Product Number: SSC1113-0.5	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com">www.cancerdiagnostics.com</a>

**Section 2. Hazards Identification**

<b>2.1 GHS Classification</b>	Acute aquatic toxicity (Category 2) – H401 Chronic aquatic toxicity (Category 2) – H411	
<b>Classification: Directive 1999/45/EC</b>		<b>N: R22 R50/53; S2, S60, S61</b> EN: Dangerous for the environment DA: Miljøfarlig DE: Umweltgefährlich EL: Επικίνδυνο για το περιβάλλον ES: Peligroso para el medio ambiente FR: Dangereux pour l'environnement IT: Pericoloso per l'ambiente NL: Milieugevaarlijk PT: Perigoso para o ambiente SV: Miljöfarlig For full text of R- & S- phrases: see Section 15.




<b>2.2 Label Elements</b>	Pictogram(s):   Signal Word: None Hazard Statement(s): H411 – Toxic to aquatic life with long lasting effects.  Precautionary statement(s): P273 – Avoid release to the environment								
<b>NFPA</b> Scale: 0-4									
<b>HMIS (U.S.A.)</b> Scale: 0-4	<table border="1"> <tr> <td>HEALTH</td> <td>0</td> </tr> <tr> <td>FLAMMABILITY</td> <td>0</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td>0</td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td>C</td> </tr> </table>	HEALTH	0	FLAMMABILITY	0	PHYSICAL HAZARD	0	PERSONAL PROTECTION	C
HEALTH	0								
FLAMMABILITY	0								
PHYSICAL HAZARD	0								
PERSONAL PROTECTION	C								
<b>2.3 Other Hazards</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.								

### Section 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Potassium Permanganate	7722-64-7	231-760-3	 Danger. 2. H272 May intensify fire; oxidizer.  Warning. 4 H302 Harmful if swallowed.  Warning. 1. H400 Very toxic to aquatic life. 1. H410 Very toxic to aquatic life with long lasting effects.	≤ 0.5

## Section 4. First Aid Measures

### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## Section 5. Fire Fighting Measures

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	No unusual fire or explosion hazards expected.
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

## Section 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

### 6.2 Environmental precautions

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

### 6.3 Methods and materials for containment and cleaning up

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

## Section 7. Handling and Storage

### 7.1 Precautions for safe handling.

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

### 7.2 Conditions for safe storage, including any incompatibilities.

Store in well ventilated area.

Keep container tightly closed.

Store at 15-30°C.

### 7.3 Specific end use(s).

See section 1.2

## Section 8. Exposure Controls / Personal Protection



<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> N/A
<b>8.2 Exposure controls</b>	<b>Personal Protective Equipment (PPE):</b> <b>Eye/Face protection.</b> Safety glasses or goggles are required. <b>Skin protection.</b> Protective clothing is required. <b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. <b>Respiratory protection.</b> Avoid breathing vapor. <b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment. No additional information.
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Dark Purple.
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Unknown
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

## Section 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	Strong reducing agents, Peroxides, Zinc, Copper
<b>10.6 Hazardous Decomposition Materials</b>	Carbon dioxide. Carbon monoxide. Oxides of Potassium. Oxides of Manganese.

## Section 11. Toxicological Information

<b>11.1 Information on Toxicological Effects.</b>	<b>Acute Toxicity.</b> No relevant data available <b>Skin Corrosion/Irritation.</b> May be irritating to skin and mucous membranes. <b>Serious Eye Damage/Irritation.</b> May be irritating to eye. <b>Respiratory or skin sensitization.</b> No relevant data available. <b>Germ Cell Mutagenicity.</b> No relevant data available.
<b>Carcinogenicity.</b>	<b>International Agency for Research on Cancer (IARC).</b> None of the components are listed. <b>National Toxicology Program (NTP).</b> None of the components are listed.

## Section 12. Ecological Information

<b>12.1 Toxicity</b>	<b>Fish:</b> Potassium permanganate: LC50 – Oncorhynchus mykiss 0.3 – 0.6mg/L 96hr <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> Potassium permanganate: EC50 – Daphnia magna 0.84mg/L 48hr
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.

## Section 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

**Section 14. Transport Information**

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	DOT: Not a DOT controlled product ADR/RID: 3082 IMDG: 3082 IATA: 3082
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Potassium permanganate) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Potassium permanganate) IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Potassium permanganate)
<b>14.3 Transport Hazard Class(es)</b>	IATA: 9 IMDG: 9 ADR/RID: 9
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	ADR/RID: III IMDG: III IATA: III
<b>14.5 Environmental Hazards</b>	ADR/RID: Yes IMDG Marine pollutant: Yes IATA: Yes
<b>14.6 Special Precautions for User</b>	Not applicable.

**Section 15. Regulatory Information**

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	None of the components in this mixture are listed.
<b>Right To Know Components</b>	None of the components in this mixture are listed.
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<p><b>R22</b>            EN: Harmful if swallowed.            DA: Farlig ved indtagelse.            DE: Gesundheitsschädlich beim Verschlucken.            EL: Επιβλαβές σε περίπτωση καταπόσεως.            ES: Nocivo por ingestión.            FR: Nocif en cas d'ingestion.            IT: Nocivo per ingestione.</p> <p><b>R50/53</b>            EN: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.            DA: Meget giftig for organismer, der lever i vand; kan forårsage uønskede langtidsvirkninger i vandmiljøet.            DE: Sehr giftig für Wasserorganismen, kann in Gewässern längerfristig schädliche Wirkungen haben.            EL: Πολύ τοξικό για τους υδρόβιους οργανισμούς, μπορεί να προκαλέσει μακροχρόνιες δυσμενείς επιπτώσεις στο υδάτινο περιβάλλον.            ES: Muy tóxico para los organismos acuáticos, puede provocar a largo plazo efectos negativos en el</p>

	<p>medio ambiente acuático.</p> <p>FR: Tres toxique pour les organismes aquatiques, peut entrainer des effets nefastes a long terme pour l'environnement aquatique.</p> <p>IT: Altamente tossico per gli organismi acquatici, può provocare a lungo termine effetti negativi per l'ambiente acquatico..</p>
<b>S phrases</b>	<p><b>S2</b></p> <p>EN: Keep out of the reach of children.          DA: Opbevares utilgængeligt for børn.          DE: Darf nicht in die Hände von Kindern gelangen.          EL: Μακριά από παιδιά.          ES: Manténgase fuera del alcance de los niños.          FR: Conserver hors de la portee des enfants.          IT: Conservare fuori della portata dei bambini.</p> <p><b>S60</b></p> <p>EN: This material and its container must be disposed of as hazardous waste.          DA: Undgå udledning til miljøet. Se særlig vejledning/leverandørbrugsanvisning.          DE: Dieses Produkt und sein Behälter sind als gefährlicher Abfall zu entsorgen.          EL: Αποφύγετε την ελευθέρωσή του στο περιβάλλον. Αναφερθείτε σε ειδικές οδηγίες/ελτίο δεδομένων ασφαλείας.          ES: Elimínense el producto y su recipiente como residuos peligrosos.          FR: Eliminer le produit et son récipient comme un déchet dangereux.          IT: Questo materiale e il suo contenitore devono essere smaltiti come rifiuti pericolosi.</p> <p><b>S61</b></p> <p>EN: Avoid release to the environment. Refer to special instructions/Safety data sheets.          DA: Undgå udledning til miljøet. Se særlig vejledning/leverandørbrugsanvisning.          DE: Freisetzung in die Umwelt vermeiden. Besondere Anweisungen einholen/Sicherheitsdatenblatt zu Rate ziehen.          EL: Αποφύγετε την ελευθέρωσή του στο περιβάλλον. Αναφερθείτε σε ειδικές οδηγίες/ελτίο δεδομένων ασφαλείας.          ES: Evítense su liberación al medio ambiente. Recábense instrucciones específicas de la ficha de datos de seguridad.          FR: Éviter le rejet dans l'environnement. Consulter les instructions spéciales/la fiche de données de sécurité.          IT: Non disperdere nell'ambiente. Riferirsi alle istruzioni speciali/ schede informative in materia di sicurezza.</p>

## Section 16. Other Information

**Revision Date:** 2019-01-11


**Notice to Reader:**



*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Potassium Metabisulfite Solution (3%) Product Number: SSC1183	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com/sds">www.cancerdiagnostics.com/sds</a>

**Section 2. Hazards Identification**

<b>2.1 GHS Classification</b>	Serious eye damage (Category 1) – H318	
<b>Classification: Directive 1999/45/EC</b>		<b>Xn R22, R31, R41, S2, S26, S39, S46</b> EN: Harmful DA: Sundhedsskadelig DE: Gesundheitsschädlich EL: Επιβλαβές ES: Nocivo FR: Nocif IT: Nocivo NL: Schadelijk PT: Nocivo SV: Hälsoskadlig  For full text of R- & S- phrases: see Section 15.


<b>2.2 Label Elements</b>	Pictogram(s):   Signal word: Danger  Hazard statement(s): H318 – Causes serious eye damage  Precautionary statement(s): P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 – IF IN EYES: Rinse cautiously with water for several minutes. P337 + P313 – If eye irritation persists: Get medical advice/attention		
<b>NFPA</b> Scale: 0-4			
<b>HMIS (U.S.A.)</b> Scale: 0-4	<b>HEALTH</b>	<b>2</b>	
	<b>FLAMMABILITY</b>	<b>0</b>	
	<b>PHYSICAL HAZARD</b>	<b>0</b>	
	<b>PERSONAL PROTECTION</b>	<b>G</b>	
<b>2.3 Other Hazards</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.		

### Section 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Potassium Metabisulfite	16731-55-8	240-795-3	 Danger. 1 H318 Causes serious eye damage.	≤ 3

### Section 4. First Aid Measures

#### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## Section 5. Fire Fighting Measures

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	Toxic gases under fire or explosion conditions. May produce acrid smoke under fire conditions.
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

## Section 6. Accidental Release Measures

<p><b>6.1 Personal precautions, protective equipment and emergency procedures</b>          Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.</p> <p><b>6.2 Environmental precautions</b>          Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.</p> <p><b>6.3 Methods and materials for containment and cleaning up</b>          Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.</p>
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## Section 7. Handling and Storage

<p><b>7.1 Precautions for safe handling.</b>          Avoid contact with skin and eyes.          Wash thoroughly after handling.          Avoid breathing vapor.</p> <p><b>7.2 Conditions for safe storage, including any incompatibilities.</b>          Store in well ventilated area.          Keep container tightly closed.          Store at 15-30°C.</p> <p><b>7.3 Specific end use(s).</b>          See section 1.2</p>
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## Section 8. Exposure Controls / Personal Protection

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> N/A
<b>8.2 Exposure controls</b>	<p><b>Personal Protective Equipment (PPE):</b></p> <p><b>Eye/Face protection.</b>          Safety glasses or goggles are required.</p> <p><b>Skin protection.</b>          Protective clothing is required.</p> <p><b>Hand protection.</b>          Chemical resistant gloves are required.          Glove material must be resistant to the components of this product.          Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove.</p> <p><b>Respiratory protection.</b>          Avoid breathing vapor.</p> <p><b>Environmental exposure controls.</b>          Avoid releasing large quantities into the environment.          No additional information.</p>
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Clear colorless
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Unknown
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

## Section 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	N/A
<b>10.6 Hazardous Decomposition Materials</b>	Sulfur oxides.

## Section 11. Toxicological Information

<b>11.1 Information on Toxicological Effects.</b>	<b>Acute Toxicity.</b> No relevant data available <b>Skin Corrosion/Irritation.</b> May be irritating to skin and mucous membranes. <b>Serious Eye Damage/Irritation.</b> Corrosive to eye. <b>Respiratory or skin sensitization.</b> No relevant data available.
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	<b>Germ Cell Mutagenicity.</b> No relevant data available.
<b>Carcinogenicity.</b>	<b>International Agency for Research on Cancer (IARC).</b> None of the components are listed. <b>National Toxicology Program (NTP).</b> None of the components are listed.

## Section 12. Ecological Information

<b>12.1 Toxicity</b>	<b>Fish:</b> No relevant studies identified. <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> No relevant studies identified.
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.

## Section 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

## Section 14. Transport Information

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	DOT: Not dangerous goods ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods DOT: Not dangerous goods
<b>14.3 Transport Hazard Class(es)</b>	<b>DOT:</b> Not dangerous goods <b>IATA:</b> Not dangerous goods <b>IMDG:</b> Not dangerous goods <b>ADR/RID:</b> Not dangerous goods
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods DOT: Not dangerous goods

<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> No
<b>14.6 Special Precautions for User</b>	Not applicable.

## Section 15. Regulatory Information

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	None of the components in this mixture are listed.
<b>Right To Know Components</b>	<b>Potassium Metabisulfite</b> Pennsylvania New Jersey
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<p><b>R22</b>            EN: Harmful if swallowed.            DA: Farlig ved indtagelse.            DE: Gesundheitsschädlich beim Verschlucken.            EL: Επιβλαβές σε περίπτωση καταπόσεως.            ES: Nocivo por ingestión.            FR: Nocif en cas d'ingestion.            IT: Nocivo per ingestione.            NL: Schadelijk bij opname door de mond.            PT: Nocivo por ingestão.            SV: Farligt vid förtäring.</p> <p><b>R31</b>            EN: Contact with acids liberates toxic gas.            DA: Udvikler giftig gas ved kontakt med syre.            DE: Entwickelt bei Berührung mit Säure giftige Gase.            EL: Σε επαφή με οξέα ελευθερώνονται τοξικά αέρια.            ES: Σε επαφή με οξέα ελευθερώνονται τοξικά αέρια.            FR: Au contact d'un acide, dégage un gaz toxique.            IT: A contatto con acidi libera gas tossico.            NL: Vormt vergiftige gassen in contact met zuren.            PT: Em contacto com ácidos liberta gases tóxicos.            SV: Utvecklar giftig gas vid kontakt med syra.</p> <p><b>R41</b>            EN: Risk of serious damage to eyes.            DA: Risiko for alvorlig øjensskade.            DE: Gefahr ernster Augenschäden.            EL: Κίνδυνος σοβαρών οφθαλμικών βλαβών.            ES: Riesgo de lesiones oculares graves.            FR: Risque de lésions oculaires graves.            IT: Rischio di gravi lesioni oculari.            NL: Gevaar voor ernstig oogletsel.            PT: Risco de lesões oculares graves.            SV: Risk för allvarliga ögonskador.</p>
<b>S phrases</b>	<p><b>S2</b>            EN: Keep out of the reach of children.            DA: Opbevares utilgængeligt for børn.            DE: Darf nicht in die Hände von Kindern gelangen.            EL: Μακριά από παιδιά.            ES: Manténgase fuera del alcance de los niños.</p>

	<p>FR: Conserver hors de la portee des enfants. IT: Conservare fuori della portata dei bambini. NL: Buiten bereik van kinderen bewaren. PT: Manter fora do alcance das crianças. SV: Förvaras oåtkomligt för barn.</p> <p><b>S26</b> EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. DA: Kommer stoffet i øjnene, skylles straks grundigt med vand og læge kontaktes. DE: Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren. EL: Σε περίπτωση επαφής με τα μάτια πλύνετέ τα αμέσως με άφθονο νερό και ζητήστε ιατρική συμβουλή. ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico. FR: En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste. IT: In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico. NL: Bij aanraking met de ogen onmiddellijk met overvloedig water afspoelen en deskundig medisch advies inwinnen. PT: Em caso de contacto com os olhos, lavar imediata e abundantemente com água e consultar um especialista. SV: id kontakt med ögonen, spola genast med mycket vatten och kontakta läkare.</p> <p><b>S39</b> EN: Wear eye/face protection. DA: Brug beskyttelsesbriller/ansigtsskærm under arbejdet. DE: Schutzbrille/Gesichtsschutz tragen. EL: Χρησιμοποιείτε συσκευή προστασίας ματιών/προσώπου. ES: Usese protección para los ojos/la cara. FR: Porter un appareil de protection des yeux/du visage. IT: Proteggersi gli occhi/la faccia. NL: Een bescherming voor de ogen/voor het gezicht dragen. PT: Usar um equipamento protector para os olhos /face. SV: Använd skyddsglasögon eller ansiktsskydd.</p> <p><b>S46</b> EN: If swallowed, seek medical advice immediately and show this container or label. DA: Ved indtagelse, kontakt odümgående læge og vis denne beholder eller etiket. DE: Bei Verschlucken sofort ärztlichen Rat einholen und Verpackung odor Etikett vorzeigen. EL: Σε περίπτωση κατάποσης ζητήστε αμέσως ιατρική συμβουλή και δείξτε αυτό το δοχείο ή την επικέτα. ES: En caso de ingestión, acúdase inmediatamente al medico y muéstrele la etiqueta o el envase. FR: En cas d'ingestion, consulter immédiatement un médecin et lui montrer l'emballage ou l'étiquette. IT: In caso d'ingertione consultare immediatamente il medico e mostrargli il contenitore o l'etichetta. NL: In geval van inslikken onmiddellijk een arts raadplegen en verpakking of etiket tonen. PT: Em caso de ingestão, consultar imediata mente o médico e mostrar-lhe a embalagem ou o rótulo. SV: Vid förtäring kontakta genast läkare och visa denna förpackning eller etiketten.</p>
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## Section 16. Other Information

**Revision Date:** 2019-01-11


### Notice to Reader:



To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Potassium Hydroxide Solution (10%) Product Number: SSC1182	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com">www.cancerdiagnostics.com</a>

**Section 2. Hazards Identification**

<b>2.1 GHS Classification</b>	Corrosive to metals (Category 1) – H290 Acute toxicity, Oral (Category 4) – H302 Skin corrosion (Category 1A) – H314 Serious eye damage (Category 1) – H318 Acute aquatic toxicity (Category 3) – H402	
<b>Classification: Directive 1999/45/EC</b>		<b>C</b> EN: Corrosive DA: Ætsende DE: Ätzend EL: Διαβρωτικό ES: Corrosivo FR: Corrosif IT: Corrosivo NL: Bijtend PT: Corrosivo SV: Frätande  For full text of R- & S- phrases: see Section 15.


<b>2.2 Label Elements</b>	Pictogram(s):   Signal word: Danger  Hazard statement(s): H290 – May be corrosive to metals. H302 – Harmful if swallowed H314 – Causes severe skin burns and eye damage. H318 – Causes serious eye damage H402 – Harmful to aquatic life.  Precautionary statement(s): P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Get immediate medical advice/attention. P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Get immediate medical advice/attention.		
<b>NFPA</b> <b>Scale: 0-4</b>			
<b>HMIS (U.S.A.)</b> <b>Scale: 0-4</b>	HEALTH	3	
	FLAMMABILITY	0	
	PHYSICAL HAZARD	0	
	PERSONAL PROTECTION	D	
<b>2.3 Other Hazards</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.		

### Section 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Potassium Hydroxide	1310-58-3	215-181-3	 Warning. 4 H302 Harmful if swallowed.  Danger. 1B. H314 Causes severe skin burns and eye damage.	≤ 10

## Section 4. First Aid Measures

### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## Section 5. Fire Fighting Measures

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	No unusual fire or explosion hazards expected.
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

## Section 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

### 6.2 Environmental precautions

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

### 6.3 Methods and materials for containment and cleaning up

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

## Section 7. Handling and Storage

### 7.1 Precautions for safe handling.

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

### 7.2 Conditions for safe storage, including any incompatibilities.

Store in well ventilated area.

Keep container tightly closed.

Store at 15-30°C.

### 7.3 Specific end use(s).

See section 1.2

## Section 8. Exposure Controls / Personal Protection

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> N/A
<b>8.2 Exposure controls</b>	<b>Personal Protective Equipment (PPE):</b> <b>Eye/Face protection.</b> Safety glasses or goggles are required. <b>Skin protection.</b> Protective clothing is required. <b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. <b>Respiratory protection.</b> Avoid breathing vapor. <b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment. No additional information.
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Colorless.
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Basic
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

## Section 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	Strong acids, Metals, Organic material, Copper. Reacts with aluminum, tin, zinc, Magnesium, Azide, Acetone.
<b>10.6 Hazardous Decomposition Materials</b>	Potassium oxides are released under fire conditions.

## Section 11. Toxicological Information

<b>11.1 Information on Toxicological Effects.</b>	<b>Acute Toxicity.</b> No relevant data available <b>Skin Corrosion/Irritation.</b> Corrosive to skin and mucous membranes. <b>Serious Eye Damage/Irritation.</b> Corrosive to eye. <b>Respiratory or skin sensitization.</b> No relevant data available. <b>Germ Cell Mutagenicity.</b> No relevant data available.
<b>Carcinogenicity.</b>	<b>International Agency for Research on Cancer (IARC).</b> None of the components are listed. <b>National Toxicology Program (NTP).</b> None of the components are listed.

## Section 12. Ecological Information


<b>12.1 Toxicity</b>	<b>Fish:</b> No relevant studies identified. <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> No relevant studies identified.
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.



**Section 13. Disposal Considerations**

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

**Section 14. Transport Information**

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	DOT: 1814 ADR/RID: 1814 IMDG: 1814 IATA: 1814
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: POTASSIUM HYDROXIDE, SOLUTION IMDG: POTASSIUM HYDROXIDE, SOLUTION IATA: POTASSIUM HYDROXIDE, SOLUTION DOT: POTASSIUM HYDROXIDE, SOLUTION
<b>14.3 Transport Hazard Class(es)</b>	<b>DOT: 8</b> <b>IATA: 8</b> <b>IMDG: 8</b> <b>ADR/RID:8</b> 
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	ADR/RID: II IMDG: II IATA: II DOT: II
<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> No
<b>14.6 Special Precautions for User</b>	Not applicable.

**Section 15. Regulatory Information**

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	None of the components in this mixture are listed.
<b>Right To Know Components</b>	None of the components in this mixture are listed.
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<b>R22</b> EN: Harmful if swallowed. DA: Farlig ved indtagelse. DE: Gesundheitsschädlich beim Verschlucken.

	<p>EL: Επιβλαβές σε περίπτωση καταπόσεως.          ES: Nocivo por ingestión.          FR: Nocif en cas d'ingestion.          IT: Nocivo per ingestione.          NL: Schadelijk bij opname door de mond.          PT: Nocivo por ingestão.          SV: Farligt vid förtäring.</p> <p><b>R35</b>          EN: Causes severe burns.          DA: Alvorlig ætsningsfare.          DE: Verursacht schwere Verätzungen.          EL: Προκαλεί σοβαρά εγκαύματα.          ES: Provoca quemaduras graves.          FR: Provoque de graves brulures.          IT: Provoca gravi ustioni.          NL: Veroorzaakt ernstige brandwonden.          PT: Provoca queimaduras graves.          SV: Starkt frätande.</p>
<b>S phrases</b>	<p><b>S26</b>          EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.          DA: Kommer stoffet i øjnene, skylles straks grundigt med vand og læge kontaktes.          DE: Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren.          EL: Σε περίπτωση επαφής με τα μάτια πλύνετε τα αμέσως με άφθονο νερό και ζητήστε ιατρική συμβουλή.          ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico.          FR: En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste.          IT: In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico.          NL: Bij aanraking met de ogen onmiddellijk met overvloedig water afspoelen en deskundig medisch advies inwinnen.          PT: Em caso de contacto com os olhos, lavar imediata e abundantemente com água e consultar um especialista.          SV: id kontakt med ögonen, spola genast med mycket vatten och kontakta läkare.</p> <p><b>S36/37/39</b>          EN: Wear suitable protective clothing, gloves and eye/face protection.          DA: Brug særligt arbejdstøj, egnede beskyttelseshandsker og -briller/ansigtsskærm.          DE: Bei der Arbeit geeignete Schutzkleidung, Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen.          EL: Φοράτε κατάλληλη προστατευτική ενδυμασία, γάντια και συσκευή προστασίας ματιών/προσώπου.          ES: Úsense indumentaria y guantes adecuados y protección para los ojos/la cara.          FR: Porter un vêtement de protection approprié, des gants et un appareil de protection des yeux/du visage.          IT: Usare indumenti protettivi e guanti adatti e proteggersi gli occhi/la faccia.          NL: Draag geschikte beschermende kleding, handschoenen en een beschermingsmiddel voor de ogen/het gezicht.          PT: Usar vestuário de protecção, luvas e equipamento protector para os olhos /face adequados.          SV: Använd lämpliga skyddskläder, skyddshandskar samt skyddsglasögon eller ansiktsskydd.</p> <p><b>S45</b>          EN: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).          DA: Ved ulykkestilfælde eller ved ildebefindende er omgående lægebehandling nødvendig; vis etiketten, hvis det er muligt.          DE: Bei Unfall oder Unwohlsein sofort Arzt zuziehen (wenn möglich, dieses Etikett vorzeigen).          EL: Σε περίπτωση ατυχήματος ή αν αισθανθείτε αδιαθεσία ζητήστε αμέσως ιατρική συμβουλή (δείξτε την επικέτα αν είναι δυνατό).          ES: En caso de accidente o malestar, acúdase inmediatamente al médico (si es posible, muéstresele</p>

	<p>la etiqueta).</p> <p>FR: En cas d'accident ou de malaise, consulter immédiatement un medecin (si possible lui montrer l'etiquette).</p> <p>IT: In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l'etichetta).</p> <p>NL: Bij een ongeval of indien men zich onwel voelt, onmiddellijk een arts raadplegen (indien mogelijk hem dit etiket tonen).</p> <p>PT: Em caso de acidente ou de indisposição, consultar imediatamente o médico (se possível mostrar-lhe o rótulo).</p> <p>SV: Vid olycksfall, illamående eller annan påverkan, kontakta omedelbart läkare. Visa om möjligt etiketten.</p>
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## Section 16. Other Information

**Revision Date:** 2019-01-11

**Notice to Reader:**


*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

## Nuclear Fast Red Solution



### 1. Identification

<b>1.1 Product Identifier</b>	Product Name: Nuclear Fast Red Solution (Enhanced Stability) Product Number: SSC1099	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com">www.cancerdiagnostics.com</a>

### 2. Hazards Identification

<b>2.1 GHS Classification</b>	Skin irritation (Category 2) – H315 Serious eye damage (Category 1) – H318 Chronic aquatic toxicity (Category 3) – H412	
<b>Classification: Directive 1999/45/EC</b>	 <p><b>Xi, R36, S26</b>          EN: Irritant          DA: Lokalirriterende          DE: Reizend          EL: Ερεθιστικό          ES: Irritante          FR: Irritant          IT: Irritante          NL: Irriterend          PT: Irritante          SV: Irriterande</p> <p>For full text of R- &amp; S- phrases: see Section 15.</p>	

## Nuclear Fast Red Solution




<b>2.2 Label Elements</b>	Pictogram(s):  Signal word: Danger Hazard statement(s): H303 – May be harmful if swallowed. H318 – Causes serious eye damage H412 – Harmful to aquatic life with long-lasting effects  Precautionary statement(s): P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P315 - IF IN EYES: Rinse cautiously with water for several minutes. Get immediate medical advice/attention. P273 – Avoid release to the environment.			
<b>NFPA Scale: 0-4</b>				
<b>HMIS (U.S.A.) Scale: 0-4</b>	<b>HEALTH</b>	<b>2</b>		
	<b>FLAMMABILITY</b>	<b>0</b>		
	<b>PHYSICAL HAZARD</b>	<b>0</b>		
	<b>PERSONAL PROTECTION</b>	<b>B</b>		
<b>2.3 Other Hazards</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.			

### 3. Composition and Information on Ingredients




#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%/w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Water	7732-18-5	231-791-2	n/a	80-100
Aluminum Sulfate Hydrate	7784-31-8	233-135-0	 Warning. 2 H315 Causes skin irritation. 3 H335 May cause respiratory irritation.  Danger. 2 H318 Causes serious eye damage.  Warning. 2 H411 Toxic to aquatic life with long lasting effects.	≤ 5

## Nuclear Fast Red Solution

Nuclear Fast Red	6409-77-4	229-088-0	 Warning. 2 H315 Causes skin irritation. 2 H319 Causes serious eye irritation. 3 H335 May cause respiratory irritation.	≤ 0.2
Sodium Azide	26628-22-8	247-852-1	 Danger 1, 2 H300 Fatal if swallowed., H310 Fatal in contact with skin.  Warning. 1. H410 Very toxic to aquatic life with long lasting effects.	≤ 0.1

### 4. First Aid Measures

#### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

### 5. Fire Fighting Measures

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	Sulphur oxides, Aluminum oxide
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

### 6. Accidental Release Measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

#### 6.2 Environmental precautions

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

#### 6.3 Methods and materials for containment and cleaning up

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

## Nuclear Fast Red Solution

### 7. Handling and Storage

**7.1 Precautions for safe handling.**

Avoid contact with skin and eyes.  
 Wash thoroughly after handling.  
 Avoid breathing vapor.

**7.2 Conditions for safe storage, including any incompatibilities.**

Store in well ventilated area.  
 Keep container tightly closed.  
 Store at 15-30°C.

**7.3 Specific end use(s).**

See section 1.2

### 8. Exposure Controls / Personal Protection

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> Sodium Azide: ACGIH TLV: 0.29/mg/m <sup>3</sup> ceiling NIOSH REL-C: 0.3mg/m <sup>3</sup> skin
<b>8.2 Exposure controls</b>	<b>Personal Protective Equipment (PPE):</b> <b>Eye/Face protection.</b> Safety glasses or goggles are required. <b>Skin protection.</b> Protective clothing is required. <b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. <b>Respiratory protection.</b> Avoid breathing vapor. <b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment. No additional information.
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

### 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Red
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Unknown
<b>pH</b>	3.2 ± 0.4
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown

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Vapor Density	Unknown
Relative Density	Unknown
Solubility(ies)	Water
Partition Coefficient: n-octanol/water	Unknown
Auto-Ignition Temperature	Unknown
Decomposition Temperature	Unknown
Viscosity	Unknown
Explosive Properties	Not explosive.
Oxidizing Properties	Unknown

### 10. Stability and Reactivity

10.1 Reactivity	No relevant data available.
10.2 Chemical Stability	Stable under normal temperatures and pressures.
10.3 Possibility of Hazardous Reactions	No hazardous reactions known.
10.4 Conditions to Avoid	Fire, static electricity, direct sunlight.
10.5 Incompatible Materials	Strong oxidizing agents, metals.
10.6 Hazardous Decomposition Materials	Sulphur oxides, Aluminum oxide.

### 11. Toxicological Information

11.1 Information on Toxicological Effects.	<p><b>Acute Toxicity.</b> No relevant data available</p> <p><b>Skin Corrosion/Irritation.</b> Irritating to skin and mucous membranes.</p> <p><b>Serious Eye Damage/Irritation.</b> Causes serious damage to eye.</p> <p><b>Respiratory or skin sensitization.</b> No relevant data available.</p> <p><b>Germ Cell Mutagenicity.</b> No relevant data available.</p>
Carcinogenicity.	<p><b>International Agency for Research on Cancer (IARC).</b> None of the components are listed.</p> <p><b>National Toxicology Program (NTP).</b> None of the components are listed.</p>

### 12. Ecological Information

12.1 Toxicity	<p><b>Fish:</b> No relevant studies identified. <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> No relevant studies identified.</p> <p><b>Other:</b> Known to be harmful to aquatic life with long-lasting effects.</p>
12.2 Persistence and Degradability.	No relevant studies identified.
12.3 Bioaccumulative Potential.	No relevant studies identified.



## Nuclear Fast Red Solution

<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.

### 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

### 14. Transport Information

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	DOT: Not dangerous goods. ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. DOT: Not dangerous goods.
<b>14.3 Transport Hazard Class(es)</b>	<b>DOT:</b> Not dangerous goods. <b>IATA:</b> Not dangerous goods. <b>IMDG:</b> Not dangerous goods. <b>ADR/RID:</b> Not dangerous goods.
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. DOT: Not dangerous goods.
<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> No
<b>14.6 Special Precautions for User</b>	Not applicable.
<b>14.7 Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code.</b>	This product is not intended to be transported in bulk as defined in Annex II of MARPOL73/78 and the IBC Code.

### 15. Regulatory Information

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	This mixture does not contain a chemical known to the state of California to cause cancer.
<b>Right To Know Components</b>	None of the components in this mixture are listed.

## Nuclear Fast Red Solution

<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<p><b>R38</b>          EN: Irritating to skin.          DA: Irriterer huden.          DE: Reizt die Haut.          EL: Ερεθίζει το δέρμα.          ES: Irrita la piel.          FR: Irritant pour la peau.          IT: Irritante per la pelle.          NL: Irriterend voor de huid.          PT: Irriterend voor de huid.          SV: Irriterar huden.</p> <p><b>R41</b>          EN: Risk of serious damage to eyes.          DA: Risiko for alvorlig øjenskade.          DE: Gefahr ernster Augenschäden.          EL: Κίνδυνος σοβαρών οφθαλμικών βλαβών.          ES: Riesgo de lesiones oculares graves.          FR: Risque de lésions oculaires graves.          IT: Rischio di gravi lesioni oculari.          NL: Gevaar voor ernstig oogletsel.          PT: Risco de lesões oculares graves.          SV: Risk för allvarliga ögonskador.</p> <p><b>R52</b>          EN: Harmful to aquatic organisms.          DA: Skadelig for organismer, der lever i vand.          DE: Schädlich für Wasserorganismen.          EL: Επιβλαβές για τους υδρόβιους οργανισμούς.          ES: Nocivo para los organismos acuáticos.          FR: Nocif pour les organismes aquatiques.          IT: Nocivo per gli organismi acquatici.          NL: Schadelijk voor in het water levende organismen.          PT: Nocivo para os organismos aquáticos.          SV: Skadligt för vattenlevande organismer.</p>
<b>S phrases</b>	<p><b>S36/37/39</b>          EN: Wear suitable protective clothing, gloves and eye/face protection.          DA: Brug særligt arbejdstøj, egnede beskyttelseshandsker og -briller/ansigtsskærm.          DE: Bei der Arbeit geeignete Schutzkleidung, Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen.          EL: Φοράτε κατάλληλη προστατευτική ενδυμασία, γάντια και συσκευή προστασίας ματιών/προσώπου          ES: Úsense indumentaria y guantes adecuados y protección para los ojos/la cara.          FR: Porter un vêtement de protection appropriée, des gants et un appareil de protection des yeux/du visage.          IT: Usare indumenti protettivi e guanti adatti e proteggersi gli occhi/la faccia.          NL: Draag geschikte beschermende kleding, handschoenen en een beschermingsmiddel voor de ogen/het gezicht.          PT: Usar vestuário de protecção, luvas e equipamento protector para os olhos /face adequados.          SV: Använd lämpliga skyddskläder, skyddshandskar samt skyddsglasögon eller ansiktsskydd.</p> <p><b>S26</b>          EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.          DA: Kommer stoffet i øjnene, skylles straks grundigt med vand og læge kontaktes.          DE: Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren.          EL: Σε περίπτωση επαφής με τα μάτια πλύνετε τα αμέσως με άφθονο νερό και ζητήστε ιατρική συμβουλή.          ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico.</p>

## Nuclear Fast Red Solution

	<p>FR: En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste.</p> <p>IT: In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico.</p> <p>NL: Bij aanraking met de ogen onmiddellijk met overvloedig water afspoelen en deskundig medisch advies inwinnen.</p> <p>PT: Em caso de contacto com os olhos, lavar imediata e abundantemente com água e consultar um especialista.</p> <p>SV: id kontakt med ögonen, spola genast med mycket vatten och kontakta läkare.</p>
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### 16. Other Information

**Revision Date:** 01/11/2019

**Notice to Reader:**



*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Gold Chloride Solution (0.2%) Product Number: SSC1080	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com/sds">www.cancerdiagnostics.com/sds</a>

**Section 2. Hazards Identification**

<b>2.1 Classification: Regulation (EC) No 1272/2008 (CLP)</b>	Skin sensitization (Category 1) – H317
<b>Classification: OSHA 29 CFR 1910.1200 HCS</b>	Skin sensitization (Category 1) – H317
<b>Classification: Directive 1999/45/EC</b>	<b>R42/43, S26, S36/37/39, S45</b> EN: May cause sensitization by inhalation and skin contact. DA: Kan give overfølsomhed ved indånding og ved kontakt med huden. DE: Sensibilisierung durch Einatmen und Hautkontakt möglich. EL: Μπορεί να προκαλέσει ευαισθητοποίηση όταν εισπνέεται και σε επαφή με το δέρμα. ES: Posibilidad de sensibilización por inhalación y por contacto con la piel. FR: Peut entraîner une sensibilisation par inhalation et par contact avec la peau. IT: Può provocare sensibilizzazione per inalazione e contatto con la pelle. NL: Kan overgevoeligheid veroorzaken bij inademing of contact met de huid. PT: Pode causar sensibilização por inalação e em contacto com a pele. SV: Kan ge allergi vid inandning och hudkontakt. For full text of R- & S- phrases: see Section 15.

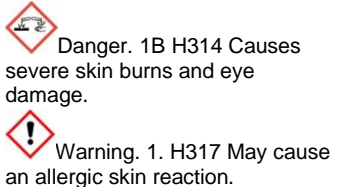
<b>2.2 Label Elements</b>	Pictogram(s):   Signal word: Warning  Hazard statement(s): H317 – May cause an allergic skin reaction  Precautionary statement(s): P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes.		
<b>NFPA</b> Scale: 0-4			
<b>HMIS (U.S.A.)</b> Scale: 0-4	HEALTH	1	
	FLAMMABILITY	0	
	PHYSICAL HAZARD	0	
	PERSONAL PROTECTION	B	
<b>2.3 Other Hazards</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.		

### Section 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%/w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Gold Chloride	16961-25-4	240-948-4		≤ 0.2

### Section 4. First Aid Measures

#### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water. Get immediate medical attention if irritation continues.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

See section 2.2 and 11.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**Section 5. Fire Fighting Measures**

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	Decomposes on heating to chlorine gas, hydrogen chloride and metallic gold.
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

**Section 6. Accidental Release Measures**
**6.1 Personal precautions, protective equipment and emergency procedures**

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

**6.2 Environmental precautions**

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

**6.3 Methods and materials for containment and cleaning up**

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

**Section 7. Handling and Storage**
**7.1 Precautions for safe handling.**

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

**7.2 Conditions for safe storage, including any incompatibilities.**

Store in well ventilated area.

Keep container tightly closed.

Store at 2-8°C.

**7.3 Specific end use(s).**

See section 1.2

**Section 8. Exposure Controls / Personal Protection**

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> N/A
<b>8.2 Exposure controls</b>	<b>Personal Protective Equipment (PPE):</b> <b>Eye/Face protection.</b> Safety glasses or goggles are required. <b>Skin protection.</b> Protective clothing is required. <b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. <b>Respiratory protection.</b> Avoid breathing vapor.

	<b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment. No additional information.
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Transparent yellow
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Unknown
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

## Section 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	Ammonia or ammonia salts. Strong bases.
<b>10.6 Hazardous Decomposition Materials</b>	Hydrogen chloride.

## Section 11. Toxicological Information

<b>11.1 Information on Toxicological Effects.</b>	<b>Acute Toxicity.</b> No relevant data available <b>Skin Corrosion/Irritation.</b> Irritating to skin and mucous membranes. <b>Serious Eye Damage/Irritation.</b> Irritating to eye. <b>Respiratory or skin sensitization.</b> No relevant data available. <b>Germ Cell Mutagenicity.</b> No relevant data available.
<b>Carcinogenicity.</b>	<b>International Agency for Research on Cancer (IARC).</b> None of the components are listed. <b>National Toxicology Program (NTP).</b> None of the components are listed.

## Section 12. Ecological Information

<b>12.1 Toxicity</b>	<b>Fish:</b> No relevant studies identified. <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> No relevant studies identified.
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.

## Section 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

## Section 14. Transport Information

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	DOT: Not dangerous goods ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods DOT: Not dangerous goods



<b>14.3 Transport Hazard Class(es)</b>	DOT: Not dangerous goods IATA: Not dangerous goods IMDG: Not dangerous goods ADR/RID: Not dangerous goods
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods DOT: Not dangerous goods
<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> No
<b>14.6 Special Precautions for User</b>	Not applicable.

## Section 15. Regulatory Information

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	None of the components in this mixture are listed.
<b>Right To Know Components</b>	None of the components in this mixture are listed.
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<b>R42/43</b> EN: May cause sensitization by inhalation and skin contact. DA: Kan give overfølsomhed ved indånding og ved kontakt med huden. DE: Sensibilisierung durch Einatmen und Hautkontakt möglich. EL: Μπορεί να προκαλέσει ευαισθητοποίηση όταν εισπνέεται και σε επαφή με το δέρμα. ES: Posibilidad de sensibilización por inhalación y por contacto con la piel. FR: Peut entraîner une sensibilisation par inhalation et par contact avec la peau. IT: Può provocare sensibilizzazione per inalazione e contatto con la pelle. NL: Kan overgevoeligheid veroorzaken bij inademing of contact met de huid. PT: Pode causar sensibilização por inalação e em contacto com a pele. SV: Kan ge allergi vid inandning och hudkontakt.
<b>S phrases</b>	<b>S26</b> EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. DA: Kommer stoffet i øjnene, skylles straks grundigt med vand og læge kontaktes. DE: Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren. EL: Σε περίπτωση επαφής με τα μάτια πλύνετε τα αμέσως με άφθονο νερό και ζητήστε ιατρική συμβουλή. ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico. FR: En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste. IT: In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico. NL: Bij aanraking met de ogen onmiddellijk met overvloedig water afspoelen en deskundig medisch advies inwinnen. PT: Em caso de contacto com os olhos, lavar imediata e abundantemente com água e consultar um especialista. SV: id kontakt med ögonen, spola genast med mycket vatten och kontakta läkare.

	<p><b>S36/37/39</b>  EN: Wear suitable protective clothing, gloves and eye/face protection.  DA: Brug særligt arbejdstøj, egnede beskyttelseshandsker og -briller/ansigtsskærm.  DE: Bei der Arbeit geeignete Schutzkleidung, Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen.  EL: Φοράτε κατάλληλη προστατευτική ενδυμασία, γάντια και συσκευή προστασίας ματιών/προσώπου  ES: Úsense indumentaria y guantes adecuados y protección para los ojos/la cara.  FR: Porter un vêtement de protection approprié, des gants et un appareil de protection des yeux/du visage.  IT: Usare indumenti protettivi e guanti adatti e proteggersi gli occhi/la faccia.  NL: Draag geschikte beschermende kleding, handschoenen en een beschermingsmiddel voor de ogen/het gezicht.  PT: Usar vestuário de protecção, luvas e equipamento protector para os olhos /face adequados.  SV: Använd lämpliga skyddskläder, skyddshandskar samt skyddsglasögon eller ansiktsskydd.</p> <p><b>S45</b>  EN: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  DA: Ved ulykkestilfælde eller ved ildebefindende er omgående lægebehandling nødvendig; vis etiketten, hvis det er muligt.  DE: Bei Unfall oder Unwohlsein sofort Arzt zuziehen (wenn möglich, dieses Etikett vorzeigen).  EL: Σε περίπτωση ατυχήματος ή αν αισθανθείτε αδιαθεσία ζητήστε αμέσως ιατρική συμβουλή (δείξτε την επκέτα αν είναι δυνατό).  ES: En caso de accidente o malestar, acúdase inmediatamente al médico (si es posible, muéstresele la etiqueta).  FR: En cas d'accident ou de malaise, consulter immédiatement un medecin (si possible lui montrer l'etiquette).  IT: In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l'etichetta).  NL: Bij een ongeval of indien men zich onwel voelt, onmiddellijk een arts raadplegen (indien mogelijk hem dit etiket tonen).  PT: Em caso de acidente ou de indisposição, consultar imediatamente o médico (se possível mostrar-lhe o rótulo).  SV: Vid olycksfall, illamående eller annan påverkan, kontakta omedelbart läkare. Visa om möjligt etiketten.</p>
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## Section 16. Other Information

**Revision Date:** 2019-01-11

### Notice to Reader:




*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

## Formalin Solution 20%



### 1. Identification

<b>1.1 Product Identifier</b>	Product Name: Formalin Solution (20%) Product Number: SSC1161-125, SSC1161-1000	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com">www.cancerdiagnostics.com</a>

### 2. Hazards Identification

<b>2.1 GHS Classification</b>	Flammable liquids (Category 4) – H227 Acute Toxicity, Oral (Category 3) – H301 Acute Toxicity, Dermal (Category 4) – H311 Skin irritation (Category 2) – H315 Serious eye damage (Category 1) H318 Skin sensitization (Category 1) – H317 Carcinogenicity (Category 2) – H351 Specific target organ toxicity (Category 1) – H370		
<b>Classification: Directive 1999/45/EC</b>	 <p><b>T</b></p> EN: Toxic DA: Giftig DE: Giftig EL: Τοξικό ES: Tóxico FR: Toxique IT: Tossico NL: Vergiftig PT: Tóxico SV: Giftig	 <p><b>C</b></p> EN: Corrosive DA: Ætsende DE: Ätzend EL: Διαβρωτικό ES: Corrosivo FR: Corrosif IT: Corrosivo NL: Bijtend PT: Corrosivo SV: Frätande	 <p><b>Xn</b></p> EN: Harmful DA: Sundhedsskadelig DE: Gesundheitsschädlich EL: Επιβλαβές ES: Nocivo FR: Nocif IT: Nocivo NL: Schadelijk PT: Nocivo SV: Hälsoskadlig
	For full text of R- & S- phrases: see Section 15.		

## Formalin Solution 20%

<b>2.2 Label Elements</b>	<p>Pictogram(s):</p>  <p>Signal word:</p> <p>Danger</p> <p>Hazard statement(s):</p> <p>H301 – Toxic if swallowed        H311 – Toxic in contact with skin        H318 – Causes serious eye damage        H351 – Suspected of causing cancer        H370 – Causes damage to organs</p> <p>Hazard statement(s) not listed on label:</p> <p>H317 – May Cause an allergic skin reaction        H227 – Combustible Liquid        H315 – Causes skin irritation</p> <p>Precautionary statement(s):</p> <p>P201: Obtain special instructions before use.        P202: Do not handle until all safety precautions [on SDS] have been read and understood.        P308 + P315 – If exposed or concerned: Get immediate medical advice/attention.</p> <p>Precautionary statement(s) not listed on label:</p> <p>P301 + P315 - IF SWALLOWED: Get immediate medical advice/attention        P280 – Wear protective gloves/protective clothing/eyeprotection/faceprotection        P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.        P333 + P313 – If skin irritation or rash occurs: Get medical advice/attention.        P403 + P235 – Store in a well-ventilated place. Keep container tightly closed.</p>		
<b>NFPA</b> <b>Scale: 0-4</b>			
<b>HMIS (U.S.A.)</b> <b>Scale: 0-4</b>	<b>HEALTH</b>	<b>3</b>	
	<b>FLAMMABILITY</b>	<b>1</b>	
	<b>PHYSICAL HAZARD</b>	<b>0</b>	
	<b>PERSONAL PROTECTION</b>	<b>H</b>	
<b>2.3 Other Hazards</b>	<p><b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT.  <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.</p>		







## Formalin Solution 20%

### 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Formalin (37-40% Formaldehyde)	50-00-0	200-001-8	 Danger. 1 H318 Causes serious eye damage. 1B 314 Causes severe skin burns and eye damage.  Danger. 3. H301 Toxic if swallowed. 3 H311 Toxic in contact with skin. 3 H331 Toxic if inhaled.  Danger. 2. H351 Suspected of causing cancer. 1. H370. Causes damage to organs.	≤ 18
Methanol	67-56-1	200-659-6	 Danger. 3 H225 Highly flammable liquid and vapour.  Danger. 3. H301 Toxic if swallowed. 3 H311 Toxic in contact with skin. 3 H331 Toxic if inhaled.  Danger. 1 H370 Causes damage to organs.	≤ 3

### 4. First Aid Measures

#### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## Formalin Solution 20%

### 5. Fire Fighting Measures

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	Emits acrid smoke and irritating fumes.
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

### 6. Accidental Release Measures

<b>6.1 Personal precautions, protective equipment and emergency procedures</b> Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.
<b>6.2 Environmental precautions</b> Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.
<b>6.3 Methods and materials for containment and cleaning up</b> Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

### 7. Handling and Storage

<b>7.1 Precautions for safe handling.</b> Avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapor.
<b>7.2 Conditions for safe storage, including any incompatibilities.</b> Store in well ventilated area. Keep container tightly closed. Store at 15-30°C.
<b>7.3 Specific end use(s).</b> See section 1.2

### 8. Exposure Controls / Personal Protection

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> Formaldehyde: <b>NIOSH REL:</b> Ca TWA 0.016 ppm C 0.1 ppm <b>OSHA PEL:</b> [1910.1048] TWA 0.75 ppm ST 2 ppm <b>ACGIH TLV:</b> 0.3 ppm C Methanol: <b>NIOSH REL:</b> TWA 200 ppm (260 mg/m <sup>3</sup> ) ST 250 ppm (325 mg/m <sup>3</sup> ) [skin] <b>OSHA PEL:</b> TWA 200 ppm (260 mg/m <sup>3</sup> ) <b>ACGIH TLV:</b> TWA 200 ppm (262 mg/m <sup>3</sup> ) STEL 250 ppm (328 mg/m <sup>3</sup> )
<b>8.2 Exposure controls</b>	<b>Personal Protective Equipment (PPE):</b> <b>Eye/Face protection.</b> Safety glasses or goggles are required. <b>Skin protection.</b> Protective clothing is required. <b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. <b>Respiratory protection.</b> Avoid breathing vapor.

## Formalin Solution 20%

	<b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment. No additional information.
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

### 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Strong formalin odor
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Unknown
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

### 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	Slightly reactive with oxidizing agents.
<b>10.6 Hazardous Decomposition Materials</b>	Carbon Monoxide, Carbon Dioxide

## Formalin Solution 20%

### 11. Toxicological Information

<b>11.1 Information on Toxicological Effects.</b>	<p><b>Acute Toxicity.</b>          Methanol:          Oral LD50          LDLO Oral - Human - 143 mg/kg          Remarks: Lungs, Thorax, or Respiration: Dyspnea. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.          LD50 Oral - rat - 1,187 - 2,769 mg/kg          Inhalation LC50          LC50 Inhalation - rat - 4 h - 128.2 mg/l          LC50 Inhalation - rat - 6 h - 87.6 mg/l          Dermal LD50          LD50 Dermal - rabbit - 17,100 mg/kg</p> <p><b>Skin Corrosion/Irritation.</b>          Irritating to skin and mucous membranes.</p> <p><b>Serious Eye Damage/Irritation.</b>          Corrosive to eye.</p> <p><b>Respiratory or skin sensitization.</b>          No relevant data available.</p> <p><b>Germ Cell Mutagenicity.</b>          No relevant data available.</p>
<b>Carcinogenicity.</b>	<p><b>International Agency for Research on Cancer (IARC).</b>          Formaldehyde is listed as a known human carcinogen.</p> <p><b>National Toxicology Program (NTP).</b>          Formaldehyde is listed as "Known to be a human carcinogen" in the Thirteenth Report.</p>

### 12. Ecological Information

<b>12.1 Toxicity</b>	<p><b>Fish:</b> No relevant studies identified. <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> No relevant studies identified.</p>
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<p><b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT.  <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.</p>


### 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.



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### 14. Transport Information

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	DOT: 1198 ADR/RID: 1198 IMDG: 1198 IATA: 1198
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: Formaldehyde Solution IMDG: Formaldehyde Solution IATA: Formaldehyde Solution DOT: Formaldehyde Solution
<b>14.3 Transport Hazard Class(es)</b>	DOT: 3 IATA: 3 IMDG: 3 ADR/RID:3  
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	ADR/RID: III IMDG: III IATA: III DOT: III
<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> No
<b>14.6 Special Precautions for User</b>	Not applicable.

### 15. Regulatory Information

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	Methanol is listed as a having developmental toxicity.
<b>Right To Know Components</b>	None of the components in this mixture are listed.
<b>Other Regulations</b>	SARA 302 Components: Formaldehyde 50-00-0 SARA 313 Components: Methanol 67-56-1 Formaldehyde 50-00-0
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<b>R24/25</b> EN: Toxic in contact with skin and if swallowed. DA: Giftig ved hudkontakt og ved indtagelse. DE: Giftig bei Berührung mit der Haut und beim Verschlucken. EL: Τοξικό σε επαφή με το δέρμα και σε περίπτωση καταπόσεως. ES: Tóxico en contacto con la piel y por ingestión.

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	<p>FR: Toxique par contact avec la peau et par ingestion.  IT: Tossico a contatto con la pelle e per ingestione.  NL: Vergiftig bij aanraking met de huid en bij opname door de mond.  PT: Tóxico em contacto com a pele e por ingestão.  SV: Giftigt vid hudkontakt och förtäring.</p> <p><b>R38</b>  EN: Irritating to skin.  DA: Irriterer huden.  DE: Reizt die Haut.  EL: Ερεθίζει το δέρμα.  ES: Irrita la piel.  FR: Irritant pour la peau.  IT: Irritante per la pelle.  NL: Irriterend voor de huid.  PT: Irriterend voor de huid.  SV: Irriterar huden.</p> <p><b>R45</b>  EN: May cause cancer.  DA: Kan fremkalde kræft.  DE: Kann Krebs erzeugen.  FR: Peut provoquer le cancer.  IT: Può provocare il cancro.  ES: Puede causar cáncer.  FR: Risque de lésions oculaires graves.  IT: Rischio di gravi lesioni oculari.  NL: Gevaar voor ernstig oogletsel.  PT: Risco de lesões oculares graves.  SV: Risk för allvarliga ögonskador.</p> <p><b>R41</b>  EN: Risk of serious damage to eyes.  DA: Risiko for alvorlig øjenskade.  DE: Gefahr ernster Augenschäden.  EL: Κίνδυνος σοβαρών οφθαλμικών βλαβών.  ES: Riesgo de lesiones oculares graves.  FR: Risque de lésions oculaires graves.  IT: Rischio di gravi lesioni oculari.  NL: Gevaar voor ernstig oogletsel.  PT: Risco de lesões oculares graves.  SV: Risk för allvarliga ögonskador.</p> <p><b>R43</b>  EN: May cause sensitisation by skin contact.  DA: Kan give overfølsomhed ved kontakt med huden.  DE: Sensibilisierung durch Hautkontakt möglich.  EL: Μπορεί να προκαλέσει ευαισθητοποίηση σε επαφή με το δέρμα.  ES: Posibilidad de sensibilización en contacto con la piel.  FR: Peut entraîner une sensibilisation par contact avec la peau.  IT: Può provocare sensibilizzazione per contatto con la pelle.  NL: Kan overgevoeligheid veroorzaken bij contact met de huid.  PT: Pode causar sensibilização em contacto com a pele.  SV: Kan ge allergi vid hudkontakt.</p> <p><b>R60</b>  EN: This material and its container must be disposed of as hazardous waste.  DA: Kan skade forplantningsevnen.  DE: Dieses Produkt und sein Behälter sind als gefährlicher Abfall zu entsorgen.  EL: Μπορεί να εξασθενήσει τη γονιμότητα.  ES: Elimínense el producto y su recipiente como residuos peligrosos.  FR: Eliminer le produit et son récipient comme un déchet dangereux.  IT: Questo materiale e il suo contenitore devono essere smaltiti come rifiuti pericolosi.</p>
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## Formalin Solution 20%

	<p>NL: Kan de vruchtbaarheid schaden.          PT: Pode comprometer a fertilidade.          SV: Kan ge nedsatt fortplantningsförmåga.</p>
<p><b>S phrases</b></p>	<p><b>S7</b>          EN: Keep container tightly closed.          DA: Emballagen skal holdes tæt lukket.          DE: Behälter dicht geschlossen halten.          EL: Το δοχείο να διατηρείται ερμητικά κλεισμένο.          ES: Manténgase el recipiente bien cerrado.          FR: Conserver le récipient bien fermé.          IT: Conservare il recipiente ben chiuso.          NL: In goed gesloten verpakking bewaren.          PT: Manter o recipiente bem fechado.          SV: Förpackningen förvaras väl tillsluten.</p> <p><b>S16</b>          EN: Keep away from sources of ignition - No smoking.          DA: Holdes væk fra antændelseskilder - Rygning forbudt.          DE: Von Zündquellen fernhalten - Nicht rauchen.          EL: Μακριά από πηγές ανάφλεξης - Απαγορεύεται το κάπνισμα.          ES: Conservar alejado de toda llama o fuente de chispas - No fumar.          FR: Conserver a l'ecart de toute flamme ou source d'étincelles - Ne pas fumer.          IT: Conservare lontano da fiamme e scintille - Non fumare.          NL: Verwijderd houden van ontstekingsbronnen - Niet roken.          PT: Manter afastado de qualquer chama ou fonte de ignição - Não fumar.          SV: Förvaras åtskilt från antändningskällor - Rökning förbjuden.</p> <p><b>S26</b>          EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.          DA: Kommer stoffet i øjnene, skylles straks grundigt med vand og læge kontaktes.          DE: Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren.          EL: Σε περίπτωση επαφής με τα μάτια πλύνετε τα αμέσως με άφθονο νερό και ζητήστε ιατρική συμβουλή.          ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico.          FR: En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste.          IT: In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico.          NL: Bij aanraking met de ogen onmiddellijk met overvloedig water afspoelen en deskundig medisch advies inwinnen.          PT: Em caso de contacto com os olhos, lavar imediata e abundantemente com água e consultar um especialista.          SV: id kontakt med ögonen, spola genast med mycket vatten och kontakta läkare.</p> <p><b>S36/37/39</b>          EN: Wear suitable protective clothing, gloves and eye/face protection.          DA: Brug særligt arbejdstøj, egnede beskytteshandsker og -briller/ansigtsskærm.          DE: Bei der Arbeit geeignete Schutzkleidung, Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen.          EL: Φοράτε κατάλληλη προστατευτική ενδυμασία, γάντια και συσκευή προστασίας ματιών/προσώπου          ES: Úsense indumentaria y guantes adecuados y protección para los ojos/la cara.          FR: Porter un vêtement de protection appropriée, des gants et un appareil de protection des yeux/du visage.          IT: Usare indumenti protettivi e guanti adatti e proteggersi gli occhi/la faccia.          NL: Draag geschikte beschermende kleding, handschoenen en een beschermingsmiddel voor de ogen/het gezicht.          PT: Usar vestuário de protecção, luvas e equipamento protector para os olhos /face adequados.          SV: Använd lämpliga skyddskläder, skyddshandskar samt skyddsglasögon eller ansiktsskydd.</p> <p><b>S45</b></p>

## Formalin Solution 20%

	<p>EN: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</p> <p>DA: Ved ulykkestilfælde eller ved ildebefindende er omgående lægebehandling nødvendig; vis etiketten, hvis det er muligt.</p> <p>DE: Bei Unfall oder Unwohlsein sofort Arzt zuziehen (wenn möglich, dieses Etikett vorzeigen).</p> <p>EL: Σε περίπτωση ατυχήματος ή αν αισθανθείτε αδιαθεσία ζητήστε αμέσως ιατρική συμβουλή (δείξτε την ετικέτα αν είναι δυνατό).</p> <p>ES: En caso de accidente o malestar, acúdase inmediatamente al médico (si es posible, muéstresele la etiqueta).</p> <p>FR: En cas d'accident ou de malaise, consulter immédiatement un medecin (si possible lui montrer l'étiquette).</p> <p>IT: In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l'etichetta).</p> <p>NL: Bij een ongeval of indien men zich onwel voelt, onmiddellijk een arts raadplegen (indien mogelijk hem dit etiket tonen).</p> <p>PT: Em caso de acidente ou de indisposição, consultar imediatamente o médico (se possível mostrar-lhe o rótulo).</p> <p>SV: Vid olycksfall, illamående eller annan påverkan, kontakta omedelbart läkare. Visa om möjligt etiketten.</p> <p><b>S51</b></p> <p>EN: Use only in well-ventilated areas.</p> <p>DA: Må kun bruges på steder med god ventilation.</p> <p>DE: Nur in gut gelüfteten Bereichen verwenden.</p> <p>EL: Να χρησιμοποιείται μόνο σε καλά αεριζόμενο χώρο.</p> <p>ES: Úsese únicamente en lugares bien ventilados.</p> <p>FR: Utiliser seulement dans des zones bien ventilées.</p> <p>IT: Usare soltanto in luogo ben ventilato.</p> <p>NL: Uitsluitend op goed geventileerde plaatsen gebruiken.</p> <p>PT: Utilizar somente em locais bem ventilados.</p> <p>SV: Sörj för god ventilation.</p>
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### 16. Other Information

**Revision Date:** 2019-01-11


**Notice to Reader:**



*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Ferric Ammonium Sulfate Solution Product Number: SSC1159-2	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	Cancer Diagnostics, Inc.
	<b>Address</b>	116 Page Point Circle Durham, NC 27703
	<b>Phone Number</b>	1-877-846-5393
	<b>Fax Number</b>	1-877-817-1716
	<b>e-mail</b>	<a href="mailto:compliance@cancerdiagnostics.com">compliance@cancerdiagnostics.com</a>
	<b>Website</b>	<a href="http://www.cancerdiagnostics.com/sds">www.cancerdiagnostics.com/sds</a>

**Section 2. Hazards Identification**

<b>2.1 GHS Classification</b>	Skin irritation (Category 2) – H315 Eye irritation (Category 2A) – H320	
<b>Classification: Directive 1999/45/EC</b>	 <p><b>Xi</b>          EN: Irritant          DA: Lokalirriterende          DE: Reizend          EL: Ερεθιστικό          ES: Irritante          FR: Irritant          IT: Irritante          NL: Irriterend          PT: Irritante          SV: Irriterande</p> <p>For full text of R- &amp; S- phrases: see Section 15.</p>	


<b>2.2 Label Elements</b>	Pictogram(s):   Signal word: Warning  Hazard statement(s): H315 – Causes skin irritation H320 – Causes serious eye irritation  Precautionary statement(s): P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 – IF IN EYES: Rinse cautiously with water for several minutes. P337 + P315 – If eye irritation persists: Get immediate medical advice/attention.														
<b>NFPA</b> Scale: 0-4															
<b>HMIS (U.S.A.)</b> Scale: 0-4	<table border="1"> <tr><td>HEALTH</td><td>1</td></tr> <tr><td>FLAMMABILITY</td><td>0</td></tr> <tr><td>PHYSICAL HAZARD</td><td>0</td></tr> <tr><td>PERSONAL PROTECTION</td><td>A</td></tr> </table>	HEALTH	1	FLAMMABILITY	0	PHYSICAL HAZARD	0	PERSONAL PROTECTION	A	<table border="1"> <tr><td>1</td></tr> <tr><td>0</td></tr> <tr><td>0</td></tr> <tr><td>A</td></tr> </table>	1	0	0	A	
HEALTH	1														
FLAMMABILITY	0														
PHYSICAL HAZARD	0														
PERSONAL PROTECTION	A														
1															
0															
0															
A															
<b>2.3 Other Hazards</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.														

### Section 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%/w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Ferric Ammonium Sulfate	7783-83-7	233-382-4	 Warning. 2 H315 Causes skin irritation. 2 H319 Causes serious eye irritation.	≤ 2

### Section 4. First Aid Measures

#### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

See section 2.2 and 11.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**Section 5. Fire Fighting Measures**

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	No unusual fire or explosion hazards expected.
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

**Section 6. Accidental Release Measures**
**6.1 Personal precautions, protective equipment and emergency procedures**

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

**6.2 Environmental precautions**

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

**6.3 Methods and materials for containment and cleaning up**

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

**Section 7. Handling and Storage**
**7.1 Precautions for safe handling.**

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

**7.2 Conditions for safe storage, including any incompatibilities.**

Store in well ventilated area.

Keep container tightly closed.

Store at 15-30°C.

**7.3 Specific end use(s).**

See section 1.2

**Section 8. Exposure Controls / Personal Protection**

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> N/A
<b>8.2 Exposure controls</b>	<b>Personal Protective Equipment (PPE):</b> <b>Eye/Face protection.</b> Safety glasses or goggles are required. <b>Skin protection.</b> Protective clothing is required. <b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. <b>Respiratory protection.</b> Avoid breathing vapor. <b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment.



	No additional information.
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Orange transparent liquid
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Unknown
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

## Section 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	Oxidizers.
<b>10.6 Hazardous Decomposition Materials</b>	Carbon Monoxide, Carbon Dioxide.

## Section 11. Toxicological Information



<b>11.1 Information on Toxicological Effects.</b>	<b>Acute Toxicity.</b> No relevant data available <b>Skin Corrosion/Irritation.</b> Irritating to skin and mucous membranes. <b>Serious Eye Damage/Irritation.</b> Seriously irritating to eye. <b>Respiratory or skin sensitization.</b> No relevant data available. <b>Germ Cell Mutagenicity.</b> No relevant data available.
<b>Carcinogenicity.</b>	<b>International Agency for Research on Cancer (IARC).</b> None of the components are listed. <b>National Toxicology Program (NTP).</b> None of the components are listed.

## Section 12. Ecological Information

<b>12.1 Toxicity</b>	<b>Fish:</b> No relevant studies identified. <b>Crustacea:</b> No relevant studies identified. <b>Algae/Aquatic Plants:</b> No relevant studies identified. <b>Other Organisms:</b> No relevant studies identified.
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.

## Section 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

## Section 14. Transport Information

<b>14.1 UN Number DOT, IATA, IMDG, ADR</b>	<b>DOT:</b> Not dangerous goods <b>ADR/RID:</b> Not dangerous goods <b>IMDG:</b> Not dangerous goods <b>IATA:</b> Not dangerous goods
<b>14.2 UN Proper Shipping Name DOT, IATA, IMDG, ADR</b>	<b>ADR/RID:</b> Not dangerous goods <b>IMDG:</b> Not dangerous goods <b>IATA:</b> Not dangerous goods <b>DOT:</b> Not dangerous goods
<b>14.3 Transport Hazard Class(es)</b>	<b>DOT:</b> Not dangerous goods <b>IATA:</b> Not dangerous goods <b>IMDG:</b> Not dangerous goods

	<b>ADR/RID:</b> Not dangerous goods
<b>14.4 Packing Group DOT, IATA, IMDG, ADR</b>	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods DOT: Not dangerous goods
<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> No
<b>14.6 Special Precautions for User</b>	Not applicable.

## Section 15. Regulatory Information

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	None of the components in this mixture are listed.
<b>Right To Know Components</b>	None of the components in this mixture are listed.
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
<b>R phrases</b>	<b>R36/38</b> EN: Irritating to eyes and skin. DA: Irriterer øjnene og huden DE: Reizt die Augen und die Haut. EL: Ερεθίζει τα μάτια και το δέρμα. ES: Irrita los ojos y la piel. FR: Irritant pour les yeux et la peau. IT: Irritante per gli occhi e la pelle. NL: Irriterend voor de ogen en de huid. PT: Irritante para os olhos e pele. SV: Irriterar ögonen och huden.
<b>S phrases</b>	<b>S24/25</b> EN: Avoid contact with skin and eyes. DA: Undgå kontakt med huden og øjnene. DE: Berührung mit den Augen und der Haut vermeiden. EL: Αποφεύγετε επαφή με το δέρμα και με τα μάτια. ES: Evítese el contacto con los ojos y la piel. FR: Éviter le contact avec la peau et les yeux. IT: Evitare il contatto con gli occhi e con la pelle. NL: Aanraking met de ogen en de huid vermijden. PT: Evitar o contacto com a pele e os olhos. SV: Undvik kontakt med huden och ögonen.  <b>S28</b> EN: After contact with skin, wash immediately with plenty of water. DA: Kommer stof på huden vaskes straks med store mængder ... (angives af fabrikanten). DE: Bei Berührung mit der Haut sofort abwaschen mit viel ... (vom Hersteller anzugeben). EL: Σε περίπτωση επαφής με το δέρμα, πλυθείτε αμέσως με άφθονο ... (το είδος του υγρού καθορίζεται από τον παραγωγό). ES: En caso de contacto con la piel, lávese inmediata y abundantemente con ... (productos a especificar por el fabricante). FR: Après contact avec la peau, se laver immédiatement et abondamment avec ... (produits appropriés à indiquer par le fabricant). IT: In caso di contatto con la pelle lavarsi immediatamente ed abbondantemente con ... (prodotti idonei da indicarsi da parte del fabbricante). NL: Na aanraking met de huid onmiddellijk wassen met veel ... (aan te geven door de fabrikant). PT: Após contacto com a pele, lavar imediata e abundantemente com ... (produtos adequados a

	<p>indicar pelo produtor).</p> <p>SV: Vid kontakt med huden tvätta genast med mycket ... (anges av tillverkaren).</p> <p><b>S37/39</b></p> <p>EN: Wear suitable gloves and eye/face protection.</p> <p>DA: Brug egnede beskytteshandsker og -briller/ansigtsskærm under arbejdet.</p> <p>DE: Bei der Arbeit geeignete Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen.</p> <p>EL: Φοράτε κατάλληλα γάντια και συσκευή προστασίας ματιών/προσώπου.</p> <p>ES: Úsense guantes adecuados y protección para los ojos/la cara.</p> <p>FR: Porter des gants appropriés et un appareil de protection des yeux/du visage.</p> <p>IT: Usare guanti adatti e proteggersi gli occhi/la faccia.</p> <p>NL: Draag geschikte handschoenen en een beschermingsmiddel voor de ogen/het gezicht.</p> <p>PT: Usar luvas e equipamento protector para os olhos /face adequados.</p> <p>SV: Använd lämpliga skyddshandskar samt skyddsglasögon eller ansiktsskydd.</p>
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## Section 16. Other Information

**Revision Date:** 2019-01-11

**Notice to Reader:**

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*