




**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Differentiating Solution (For Orcein Stain) Product Number: SSC1282	
<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 irritation (Category 2A) – H319 Skin irritation (Category 2) – H315 Flammable Liquids (Category 2) – H225	
<b>Classification: Directive 1999/45/EC</b>		<b>F R11, R36, S7, S16, S24/25, S26, S36/37/39, S45</b> EN: Highly flammable DA: Meget brandfarlig DE: Leichtentzündlich EL: Πολύ εύφλεκτο ES: Fácilmente inflamable FR: Facilement inflammable IT: Facilmente infiammabile NL: Licht ontvlambaar PT: Facilmente inflamável SV: Mycket brandfarligt  For full text of R- & S- phrases: see Section 15.




<b>2.2 Label Elements</b>	Pictogram(s):   Signal word: <b>Danger</b>  Hazard statement(s): H303 – May be harmful if swallowed H315 – Causes skin irritation H319 – Causes serious eye irritation H225 – Highly flammable liquid and vapor  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.  Precautionary statement(s) not listed on label: P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.										
<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>3</td></tr> <tr><td>PHYSICAL HAZARD</td><td>0</td></tr> <tr><td>PERSONAL PROTECTION</td><td>H</td></tr> </table>	HEALTH	1	FLAMMABILITY	3	PHYSICAL HAZARD	0	PERSONAL PROTECTION	H		
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FLAMMABILITY	3										
PHYSICAL HAZARD	0										
PERSONAL PROTECTION	H										
<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	%
Ethanol	64-17-5	200-578-6	 Danger. 2 H225 Highly flammable liquid and vapour.	≤ 65
Hydrochloric Acid	7647-01-0	231-595-7	 Warning. 3. H335 May cause respiratory irritation.   Danger. 1B. H314 Causes severe skin burns and eye damage.	0.5

Isopropyl Alcohol	67-63-0	200-661-7	 Warning. 2. H319 Causes serious eye irritation. 3. H336 May cause drowsiness or dizziness.  Danger. 3 H225 Highly flammable liquid and vapour.	≤ 4
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## 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 explosive 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> <b>Hydrochloric Acid:</b> NIOSH REL : C 5 ppm (7 mg/m <sup>3</sup> ) OSHA PEL : C 5 ppm (7 mg/m <sup>3</sup> ) <b>Ethanol:</b> NIOSH REL: 1000 ppm (1900 mg/m <sup>3</sup> ) TWA OSHA PEL: 1000 ppm (1900 mg/m <sup>3</sup> ) TWA ACGIH TLV: 1000ppm (1900mg/m <sup>3</sup> ) TWA <b>Isopropyl alcohol:</b> NIOSH REL: TWA 400 ppm (980 mg/m <sup>3</sup> ) ST 500 ppm (1225 mg/m <sup>3</sup> ) OSHA PEL: TWA 400 ppm (980 mg/m <sup>3</sup> ) ACGIH TLV: TWA 200 ppm STEL 400 ppm
<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>	Mild alcohol 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</b>	Unknown

<b>Limits</b>	
<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>	Metals, strong bases, acetyl chloride, acetyl bromide, nitric acid, iodine-mercuric oxide, hydrogen-palladium, chromic anhydride, magnesium.
<b>10.6 Hazardous Decomposition Materials</b>	Hydrogen chloride, oxides of carbon.

## 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> Hydrochloric Acid is listed as Group 3 – Not classifiable as to carcinogenicity in 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</b>	No relevant studies identified.

<b>Potential.</b>	
<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: 1170 ADR/RID: 1170 IMDG: 1170 IATA: 1170
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: Ethanol Solutions IMDG: Ethanol Solutions IATA: Ethanol Solutions DOT: Ethanol Solutions
<b>14.3 Transport Hazard Class(es)</b>	<b>DOT: 3</b> <b>IATA: 3</b> <b>IMDG: 3</b> <b>ADR/RID: 3</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>	<p><b>Ethanol</b>            Massachusetts            New Jersey            Pennsylvania</p> <p><b>Isopropyl Alcohol</b>            Massachusetts            New Jersey            Pennsylvania</p> <p><b>Hydrochloric Acid</b>            Massachusetts            New Jersey            Pennsylvania</p>
<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>R11</b>            EN: Highly flammable.            DA: Meget brandfarlig.            DE: Leichtentzündlich.            EL: Πολύ εύφλεκτο.            ES: Fácilmente inflamable.            FR: Facilement inflammable.            IT: Facilmente infiammabile.            NL: Licht ontvlambaar.            PT: Facilmente inflamável.            SV: Mycket brandfarligt.</p> <p><b>R36</b>            EN: Irritating to eyes.            DE: Reizt die Augen.            FR: Irritant pour les yeux.            IT: Irritante per gli occhi.            ES: Irrita los ojos.            FR: Irritant pour les yeux.            IT: Irritante per gli occhi.            NL: Irriterend voor de ogen.            PT: Irritante para os olhos.            SV: Irriterar ögonen.</p>
<b>S phrases</b>	<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>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: Evítase 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.</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, lávase 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 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>          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</p>
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	<p>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'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.*

**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Orcein Solution Product Number: SSC1250	
<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) – H319 Flammable liquids (Category 3) – H226	
<b>Classification: Directive 1999/45/EC</b>		<b>Xi R36/38, R67; S7, S16, S24/25, S26, S45</b> EN: Irritant DA: Lokalirriterende DE: Reizend EL: Ερεθιστικό ES: Irritante FR: Irritant IT: Irritante NL: Irriterend PT: Irritante SV: Irriterande
		







	<b>R10</b> EN: Flammable. DA: Brandfarlig. DE: Entzündlich. EL: Εύφλεκτο. ES: Inflamable. FR: Inflammable. IT: Infiammabile. NL: Ontvlambaar. PT: Inflamável. SV: Brandfarligt.  For full text of R- & S- phrases: see Section 15.									
<b>2.2 Label Elements</b>	Pictogram(s): <div style="text-align: center;">  </div> Signal word: Warning  Hazard statement(s): H319 – Causes serious eye irritation H315 – Causes skin irritation H226 – Flammable liquid and vapor  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. P210 – Keep away from heat/sparks/open flames/hot surfaces – No smoking									
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<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	%
Ethanol	64-17-5	200-578-6	 Danger. 2 H225 Highly flammable liquid and vapour.	≤ 30
Hydrochloric Acid	7647-01-0	231-595-7	 Warning. 3. H335 May cause respiratory irritation.  Danger. 1B. H314 Causes severe skin burns and eye damage.	≤ 1
Isopropyl Alcohol	67-63-0	200-661-7	 Warning. 2. H319 Causes serious eye irritation. 3. H336 May cause drowsiness or dizziness.  Danger. 3 H225 Highly flammable liquid and vapour.	≤ 1
Orcein	1400-62-0	215-750-6	 Warning. 4 H302 Harmful if swallowed	≤ 0.4

## 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 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

## 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>	Vapor may travel considerable distance to source of ignition and flash back.
<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>	<p><b>Exposure Limits:</b></p> <p><i>Ethanol:</i>          NIOSH REL: 1000 ppm (1900 mg/m<sup>3</sup>) TWA          OSHA PEL: 1000 ppm (1900 mg/m<sup>3</sup>) TWA          ACGIH TLV: 1000ppm (1900mg/m<sup>3</sup>) TWA</p> <p><i>Hydrochloric Acid:</i>          NIOSH REL          : C 5 ppm (7 mg/m<sup>3</sup>)          OSHA PEL          : C 5 ppm (7 mg/m<sup>3</sup>)</p> <p><i>Isopropanol:</i>          NIOSH REL: TWA 400 ppm (980 mg/m<sup>3</sup>) ST 500 ppm (1225 mg/m<sup>3</sup>)          OSHA PEL: TWA 400 ppm (980 mg/m<sup>3</sup>)          ACGIH TLV: TWA 200 ppm STEL 400 ppm</p>
<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>	<p>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.</p>

**Section 9. Physical and Chemical Properties**

<b>Physical State</b>	Liquid
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<b>Color</b>	Dark purple
<b>Odor</b>	Mild alcohol 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

## 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 oxidizers, silver salts, chlorides, and alkali metals.
<b>10.6 Hazardous Decomposition Materials</b>	Carbon oxides, 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> Seriously irritating to the 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> Hydrochloric Acid is listed as Group 3 – Not classifiable as to carcinogenicity in humans Isopropyl Alcohol is listed as Group 3 – not Classifiable as to carcinogenicity in humans

	<b>National Toxicology Program (NTP).</b> None of the components are listed.
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## 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: 1170 ADR/RID: 1170 IMDG: 1170 IATA: 1170
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: Ethanol Solutions IMDG: Ethanol Solutions IATA: Ethanol Solutions DOT: Ethanol Solutions
<b>14.3 Transport Hazard Class(es)</b>	DOT: Class 3 IATA: Class 3 IMDG: Class 3 ADR/RID: Class 3
<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>	<i>Ethanol</i> Massachusetts Pennsylvania New Jersey <i>Isopropyl Alcohol</i> Massachusetts Pennsylvania New Jersey <i>Hydrochloric acid</i> Massachusetts Pennsylvania New Jersey <i>Orcein</i> 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>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>R10</b>            EN: Flammable.            DA: Brandfarlig.            DE: Entzündlich.            EL: Εύφλεκτο.            ES: Inflamable.            FR: Inflammable.            IT: Infiammabile.            NL: Ontvlambaar.            PT: Inflamável.            SV: Brandfarligt.</p> <p><b>R67</b>            EN: Vapours may cause drowsiness and dizziness.            DA: Dampe kan give sløvhed og svimmelhed.            DE: Dämpfe können Schläfrigkeit und Benommenheit verursachen.            EL: Η εισπνοή ατμών μπορεί να προκαλέσει υπνηλία και ζάλη.            ES: La inhalación de vapores puede provocar somnolencia y vértigo.            FR: L'inhalation de vapeurs peut provoquer somnolence et vertiges.            IT: L'inhalazione dei vapori può provocare sonnolenza e vertigini.            NL: Dampen kunnen slaperigheid en duizeligheid veroorzaken.            PT: Pode provocar sonolência e vertigens, por inalação dos vapores.</p>



	SV: Ångor kan göra att man blir dåsig och omtöcknad.
<b>S phrases</b>	<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>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: Evítase 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.</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>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).</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'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.*

**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Oxalic Acid Solution (2%) Product Number: SSC1251	
<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 2) – H319	
<b>Classification: Directive 1999/45/EC</b>	 Xi EN: Irritant DA: Lokalirriterende DE: Reizend EL: Ερεθιστικό ES: Irritante FR: Irritant IT: Irritante NL: Irriterend PT: Irritante SV: Irriterande	



<b>2.2 Label Elements</b>	Pictogram(s):   Signal word: Warning  Hazard statement(s): H315 – Causes skin irritation H319 – 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.								
<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>C</td> </tr> </table>	HEALTH	1	FLAMMABILITY	0	PHYSICAL HAZARD	0	PERSONAL PROTECTION	C
HEALTH	1								
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	%
Oxalic Acid Dihydrate	6153-56-6	205-634-3	 Warning. 4 H302 Harmful if swallowed. 4 H312 Harmful in contact with skin.   Danger. 1 H318 Causes serious eye damage.	≤ 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 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. Rinse mouth with water. Get immediate medical attention of symptoms persist.

**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> Oxalic Acid: <b>NIOSH REL:</b> TWA 1 mg/m <sup>3</sup> ST 2 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>

	<p>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>	<p>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.</p>

## 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>	<2
<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>	Bases, alkali metals and acid chlorides.
<b>10.6 Hazardous Decomposition Materials</b>	Carbon Dioxide, Carbon Monoxide, and Formic Acid may form.

## 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 <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>	DOT: Not a hazardous mixture ADR/RID: Not a hazardous mixture IMDG: Not a hazardous mixture IATA: Not a hazardous mixture
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	ADR/RID: Not a hazardous mixture IMDG: Not a hazardous mixture IATA: Not a hazardous mixture DOT: Not a hazardous mixture
<b>14.3 Transport Hazard Class(es)</b>	DOT: Not a hazardous mixture IATA: Not a hazardous mixture IMDG: Not a hazardous mixture ADR/RID: Not a hazardous mixture
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	ADR/RID: Not a hazardous mixture IMDG: Not a hazardous mixture IATA: Not a hazardous mixture DOT: Not a hazardous mixture
<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>	Massachusetts – Oxalic Acid CAS-No. 144-62-7 Pennsylvania– Oxalic Acid CAS-No. 144-62-7 New Jersey -- Oxalic Acid CAS-No. 144-62-7
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.

**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 Permanganate Solution (5%) Product Number: SSC1260	
<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 irritation (Category 2A) – H319 Oxidizing Liquids (Category 2) – H272 Acute aquatic toxicity (Category 2) – H401 Chronic aquatic toxicity (Category2) – H411	
<b>Classification: Directive 1999/45/EC</b>		<b>Xi R8, R22, R36/38, R50/53; S2, S36/37/39, S60, S61</b> EN: Irritant DA: Lokalirriterende DE: Reizend EL: Ερεθιστικό ES: Irritante FR: Irritant IT: Irritante NL: Irriterend PT: Irritante SV: Irriterande





	 <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          H272 – May intensify fire; oxidizer          H411 – 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 + P315 – If eye irritation persists get immediate medical advice/attention.          P273 – Avoid release to the environment</p>								
<b>NFPA</b> <b>Scale: 0-4</b>									
<b>HMIS (U.S.A.)</b> <b>Scale: 0-4</b>	<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>	<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>								

### 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.  Danger 1B H314 skin corrosion, 1 Serious eye damage H318  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.	≤ 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. 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

### 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>	Oxidizing liquid.

## 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> Irritating to skin and mucous membranes. <b>Serious Eye Damage/Irritation.</b> Seriously irritating to the 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 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>	Potassium Permanganate, CAS# 7722-64-7. California Massachusetts Minnesota New Jersey Pennsylvania
<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>R8</b>            EN: Contact with combustible material may cause fire.            DA: Brandfarlig ved kontakt med brandbare stoffer.            DE: Feuergefahr bei Berührung mit brennbaren Stoffen.            EL: Η επαφή με καύσιμο υλικό μπορεί να προκαλέσει πυρκαγιά.            ES: Peligro de fuego en contacto con materias combustibles.            FR: Favorise l'inflammation des matières combustibles.            IT: Può provocare l'accensione di materie combustibili.            NL: Bevordert de ontbranding van brandbare stoffen.            PT: Favorece a inflamação de matérias combustíveis.            SV: Kontakt med brännbart material kan orsaka brand.</p> <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>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</p>

	<p>επιπτώσεις στο υδάτινο περιβάλλον.</p> <p>ES: Muy tóxico para los organismos acuáticos, puede provocar a largo plazo efectos negativos en el 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> <p>NL: Zeer vergiftig voor in het water levende organismen; kan in het aquatisch milieu op lange termijn schadelijke effecten veroorzaken.</p> <p>PT: Muito tóxico para os organismos aquáticos, podendo causar efeitos nefastos a longo prazo no ambiente aquático.</p> <p>SV: Mycket giftigt för vattenlevande organismer, kan orsaka skadliga långtidseffekter i vattenmiljön.</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.        NL: Buiten bereik van kinderen bewaren.        PT: Manter fora do alcance das crianças.        SV: Förvaras oåtkomligt för barn.</p> <p><b>S36/37/39</b></p> <p>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: Usense 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>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.        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></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: Eviter le rejet dans l'environnement. Consulter les instructions spéciales/la fiche de données de securite.</p>





## Safety Data Sheet

**Emergency** 1-800-424-9300  
**Contact** (intl.) 1-352-323-3500

	<p>IT: Non disperdere nell'ambiente. Riferirsi alle istruzioni speciali/ schede informative in materia di sicurezza.</p> <p>NL: Voorkom lozing in het milieu. Vraag om speciale instructies/veiligheidskaart.</p> <p>PT: Evitar a libertação para o ambiente. Obter instruções específicas/fichas de segurança.</p> <p>SV: Undvik utsläpp till miljön. Läs särskilda instruktioner/varuinformationsblad.</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: 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.*