


## 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>	4300 Emperor Blvd. #400 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>		<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
For full text of R- & S- phrases: see Section 15.		

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<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

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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.

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### 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.

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<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.

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<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 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>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>

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	<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: Alcian Blue Solution, pH 2.5 Product Number: SSC1040	
<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>	4300 Emperor Blvd. #400 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 2), H319	
<b>Classification: Directive 1999/45/EC</b>	 <b>Xi, R36/38, S24/25, S37/39</b> EN: Irritant DA: Lokalirriterende DE: Reizend EL: Ερεθιστικό ES: Irritante FR: Irritant IT: Irritante NL: Irriterend PT: Irritante SV: Irriterande  For full text of R- & S- phrases: see Section 15.	




<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. P337 + 313 – If eye irritation persists get 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>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>	<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	%
Acetic Acid	64-19-7	200-580-7	 Warning. 3, H226 Flammable liquid and vapour.   Danger. 1A H314 Causes severe skin burns and eye damage.	≤ 3
Alcian Blue	75881-23-1	278-333-8	 Warning. 2 H315 Causes skin irritation. 2 H319 Causes serious eye irritation. 3 H335 May cause respiratory irritation.	≤ 1

### 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>	Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas, Copper oxides
<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> Acetic acid, glacial; <b>ACGIH TLV:</b> 15ppm (37 mg/m <sup>3</sup> ) STEL 10 ppm (25 mg/m <sup>3</sup> ) TWA <b>NIOSH REL:</b> 15 ppm (37 mg/m <sup>3</sup> ) STEL 10 ppm (25 mg/m <sup>3</sup> ) TWA <b>OSHA PEL:</b> 10 ppm (25 mg/m <sup>3</sup> ) TWA
<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>	Blue
<b>Odor</b>	Mild acetic acid odor
<b>Odor Threshold</b>	Unknown
<b>pH</b>	2.50 ± 0.10
<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 oxidants, bases.
<b>10.6 Hazardous Decomposition Materials</b>	None known.

## 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</b>	No relevant data available.

<b>Recommendations.</b>	
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### 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>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>

	<p>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.</p> <p><b>S37/39</b>          EN: Wear suitable gloves and eye/face protection.          DA: Brug egnede beskyttelseshandsker og -briller/ansigtsskærm under arbejdet.          DE: Bei der Arbeit geeignete Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen.          EL: Φοράτε κατάλληλα γάντια και συσκευή προστασίας ματιών/προσώπου.          ES: Úsense guantes adecuados y protección para los ojos/la cara.          FR: Porter des gants appropriés et un appareil de protection des yeux/du visage.          IT: Usare guanti adatti e proteggersi gli occhi/la faccia.          NL: Draag geschikte handschoenen en een beschermingsmiddel voor de ogen/het gezicht.          PT: Usar luvas e equipamento protector para os olhos /face adequados.          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.*



**Section 1. Identification**

<b>1.1 Product Identifier</b>	Product Name: Acetic Acid Solution (3%) Product Number: SSC1033	
<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>	4300 Emperor Blvd. #400 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 irritation (Category 2), H315 Eye Irritation (Category 2A), H319	
<b>Classification: OSHA 29 CFR 1910.1200 HCS</b>	Skin irritation (Category 2), H315 Eye Irritation (Category 2A), H319	
<b>Classification: Directive 1999/45/EC</b>		<b>Xi, S1/2, S26, S45</b> EN: Irritant DA: Lokalirriterende DE: Reizend EL: Ερεθιστικό ES: Irritante FR: Irritant IT: Irritante NL: Irriterend PT: Irritante SV: Irriterande  For full text of R- & S- phrases: see Section 15.





<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</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	%
Acetic Acid	64-19-7	200-580-7	 Warning. 3, H226 Flammable liquid and vapour.   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 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 medical attention if symptoms arise.

**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>	Carbon oxides.
<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>          Acetic acid, glacial;  <b>ACGIH TLV:</b> 15ppm (37 mg/m3) STEL                            10 ppm (25 mg/m3) TWA  <b>NIOSH REL:</b> 15 ppm (37 mg/m3) STEL                            10 ppm (25 mg/m3) TWA  <b>OSHA PEL:</b> 10 ppm (25 mg/m3) TWA</p>
<b>8.2 Exposure controls</b>	<p><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.</p>

	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>	Slight vinegar odor.
<b>Odor Threshold</b>	Unknown
<b>pH</b>	2.0-3.0
<b>Melting Point/ Freezing Point</b>	~0°C (32°F)
<b>Initial Boiling Point</b>	Approx. 100°C (212°F)
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	(water=1): ~1
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	(Air = 1): Same as water.
<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>	Strong oxidizing agents, strong acids, strong bases.
<b>10.5 Incompatible Materials</b>	Reactive with strong oxidizing agents, reducing agents, metals, acids, and alkalis.
<b>10.6 Hazardous Decomposition Materials</b>	None known.

## 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> Severely 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>	Massachusetts: Acetic Acid CAS # 64-19-7 Pennsylvania: Acetic Acid CAS # 64-19-7 New Jersey: Acetic Acid CAS # 64-19-7
<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>S phrases</b>	<p><b>S1/2</b>            EN: Keep locked up and out of the reach of children.            DA: Opbevares under lås og utilgængeligt for børn.            DE: Unter Verschluss und für Kinder unzugänglich aufbewahren.            EL: Φυλάξτε το κλειδωμένο και μακριά από παιδιά.            ES: Consérvese bajo llave y manténgase fuera del alcance de los niños.            FR: Conserver sous clef et hors de portee des enfants.            IT: Conservare sotto chiave e fuori della portata dei bambini.            NL: Achter slot en buiten bereik van kinderen bewaren.            PT: Guardar fechado à chave e fora do alcance das crianças.            SV: Förvaras i låst utrymme och 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 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></p> <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 επικέτα 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

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