




Section 1. Identification

1.1 Product Identifier	Product Name: Acetic Alcohol Solution (2%) Product Number: SSC1222	
1.2 Intended use	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.	
1.3 Details of the supplier of the safety data sheet	Manufacturer	Cancer Diagnostics, Inc.
	Address	116 Page Point Circle Durham, NC 27703
	Phone Number	1-877-846-5393
	Fax Number	1-877-817-1716
	e-mail	compliance@cancerdiagnostics.com
	Website	www.cancerdiagnostics.com

Section 2. Hazards Identification

2.1 GHS Classification	Skin irritation (Category 2) – H315 Eye Irritation (Category 2A) – H319 Flammable Liquids (Category 2) – H225	
Classification: Directive 1999/45/EC		F R11, R36; S7, S16, S24/25, S26, S45 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.




2.2 Label Elements	Pictogram(s):  Signal word: Danger Hazard statement(s): H303 – May be harmful if swallowed. H225 – Highly flammable liquid and vapor H315 – Causes skin irritation H320 – Causes eye irritation Precautionary statement(s): P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes. P210 – Keep away from heat, hot surfaces, sparkes, open flames and other ignition sources. Precautionary statement(s) not listed on the label: P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.		
NFPA Scale: 0-4			
HMIS (U.S.A.) Scale: 0-4	HEALTH	1	
	FLAMMABILITY	3	
	PHYSICAL HAZARD	0	
	PERSONAL PROTECTION	H	
2.3 Other Hazards	PBT: This mixture does not contain any substances that are assessed to be a PBT. vPvB: 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.	≤ 95
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.	≤ 3.8

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.	≤ 2
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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. Get medical attention if irritation persists.

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

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

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

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

5.1 Extinguishing Media	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
5.2 Special hazards arising from the substance or mixture	No unusual fire or explosive hazards expected
5.3 Advice for firefighters	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

8.1 Control parameters	Exposure Limits: Acetic Acid, CAS# 64-19-7 ACGIH TLV: 15ppm (37 mg/m ³) STEL 10 ppm (25 mg/m ³) TWA NIOSH REL: 15 ppm (37 mg/m ³) STEL 10 ppm (25 mg/m ³) TWA OSHA PEL: 10 ppm (25 mg/m ³) TWA Ethanol CAS# 64-17-5 NIOSH REL: 1000 ppm (1900 mg/m ³) TWA OSHA PEL: 1000 ppm (1900 mg/m ³) TWA ACGIH TLV: 1000ppm (1900mg/m ³) TWA Isopropyl alcohol, CAS# 67-63-0 NIOSH REL: TWA 400 ppm (980 mg/m ³) ST 500 ppm (1225 mg/m ³) OSHA PEL: TWA 400 ppm (980 mg/m ³) ACGIH TLV: TWA 200 ppm STEL 400 ppm
8.2 Exposure controls	Personal Protective Equipment (PPE): Eye/Face protection. Safety glasses or goggles are required. Skin protection. Protective clothing is required. Hand protection. 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. Respiratory protection. Avoid breathing vapor. Environmental exposure controls. Avoid releasing large quantities into the environment. No additional information.
Engineering Controls	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

Physical State	Liquid
Color	Colorless
Odor	Slight alcohol odor.
Odor Threshold	Unknown
pH	Unknown
Melting Point/ Freezing Point	Unknown
Initial Boiling Point	Unknown
Flash Point	Unknown
Evaporation Rate	Unknown
Flammability (solid, gas)	Unknown
Upper/Lower Flammability Limits	Unknown
Vapor Pressure	Unknown
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

Section 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	Oxidizing agents. Metal hydrides.
10.6 Hazardous Decomposition Materials	Carbon Dioxide. Carbon Monoxide.

Section 11. Toxicological Information

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


Section 12. Ecological Information

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

Section 13. Disposal Considerations

13.1 Waste Disposal Methods.	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.
Product/Packaging Disposal.	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
Other Disposal Recommendations.	No relevant data available.

Section 14. Transport Information

14.1 UN Number DOT, IATA,IMDG, ADR	DOT: 1170 ADR/RID: 1170 IMDG: 1170 IATA: 1170
14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR	ADR/RID: Ethanol Solutions IMDG: Ethanol Solutions IATA: Ethanol Solutions DOT: Ethanol Solutions
14.3 Transport Hazard Class(es)	DOT: 3 IATA: 3 IMDG: 3 ADR/RID: 3 



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

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
Extremely Hazardous Substances; Section 355	None of the components in this mixture are listed.
Toxic Substances Control Act; TSCA	All of the components in this mixture are listed.
California Proposition 65	None of the components in this mixture are listed.
Right To Know Components	<p>Ethanol Massachusetts New Jersey Pennsylvania</p> <p>Isopropyl Alcohol Massachusetts New Jersey Pennsylvania</p> <p>Acetic Acid Massachusetts New Jersey Pennsylvania</p>
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
R phrases	<p>R11 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>R36 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>

S phrases	<p>S7 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>S16 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>S24/25 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>S26 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>S45 EN: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). DA: Ved ulykkestilfælde eller ved ildebefindende er omgående lægebehandling nødvendig; vis etiketten, hvis det er muligt. DE: Bei Unfall oder Unwohlsein sofort Arzt zuziehen (wenn möglich, dieses Etikett vorzeigen). EL: Σε περίπτωση ατυχήματος ή αν αισθανθείτε αδιαθεσία ζητήστε αμέσως ιατρική συμβουλή (δείξτε την ετικέτα αν είναι δυνατό). ES: En caso de accidente o malestar, acúdase inmediatamente al médico (si es posible, muéstresele</p>
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	<p>la etiqueta).</p> <p>FR: En cas d'accident ou de malaise, consulter immédiatement un medecin (si possible lui montrer l'etiquette).</p> <p>IT: In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l'etichetta).</p> <p>NL: Bij een ongeval of indien men zich onwel voelt, onmiddellijk een arts raadplegen (indien mogelijk hem dit etiket tonen).</p> <p>PT: Em caso de acidente ou de indisposição, consultar imediatamente o médico (se possível mostrar-lhe o rótulo).</p> <p>SV: Vid olycksfall, illamående eller annan påverkan, kontakta omedelbart läkare. Visa om möjligt etiketten.</p>
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Section 16. Other Information

Revision Date: 03/13/2019


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 of the Substance/Mixture and the Company

1.1 Product Identifier	Product Name: Twort's Neutral Red (Part A) Product Number: SSC1147	
1.2 Intended use	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.	
1.3 Details of the supplier of the safety data sheet	Manufacturer	Cancer Diagnostics, Inc.
	Address	116 Page Point Circle Durham, NC 27703
	Phone Number	1-877-846-5393
	Fax Number	1-877-817-1716
	e-mail	compliance@cancerdiagnostics.com
	Website	www.cancerdiagnostics.com

Section 2. Hazards Identification

2.1 GHS Classification	Flammable liquids (Category 2) – H225 Skin irritation (Category 2) – H315 Eye irritation (Category 2A) – H319 Specific target organ toxicity (Category 3), Central nervous system – H336	
Classification: Directive 1999/45/EC		F R11, R36; S7, S16, S24/25 S26 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.	




2.2 Label Elements	Pictogram(s):   Signal word: Danger Hazard statement(s): H226 – Flammable liquid and vapour H319 – Causes serious eye irritation H315 – Causes skin irritation H336 – May cause drowsiness or dizziness Precautionary statement(s): P210 – Keep away from heat/sparks/open flames/hot surfaces – No smoking P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 – IF IN EYES: Rinse cautiously with water for several minutes.								
NFPA Scale: 0-4									
HMIS (U.S.A.) Scale: 0-4	<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>G</td> </tr> </table>	HEALTH	1	FLAMMABILITY	3	PHYSICAL HAZARD	0	PERSONAL PROTECTION	G
HEALTH	1								
FLAMMABILITY	3								
PHYSICAL HAZARD	0								
PERSONAL PROTECTION	G								
2.3 Other Hazards	PBT: This mixture does not contain any substances that are assessed to be a PBT. vPvB: 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.	≤ 95
Isopropanol	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.	≤ 5
Neutral Red	553-24-2	209-035-8	N/A	≤ 0.5

Section 4. First Aid Measures

4.1 Description of first aid measures

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

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

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

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

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

5.1 Extinguishing Media	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
5.2 Special hazards arising from the substance or mixture	No unusual fire or explosive hazards expected
5.3 Advice for firefighters	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

8.1 Control parameters	Exposure Limits: <i>Ethanol:</i> NIOSH REL: 1000 ppm (1900 mg/m ³) TWA OSHA PEL: 1000 ppm (1900 mg/m ³) TWA ACGIH TLV: 1000ppm (1900mg/m ³) TWA <i>Isopropanol:</i> NIOSH REL: TWA 400 ppm (980 mg/m ³) ST 500 ppm (1225 mg/m ³) OSHA PEL: TWA 400 ppm (980 mg/m ³) ACGIH TLV: TWA 200 ppm STEL 400 ppm
8.2 Exposure controls	Personal Protective Equipment (PPE): Eye/Face protection. Safety glasses or goggles are required. Skin protection. Protective clothing is required. Hand protection. 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. Respiratory protection. Avoid breathing vapor. Environmental exposure controls. Avoid releasing large quantities into the environment. No additional information.
Engineering Controls	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

Physical State	Liquid
Color	Red
Odor	Mild alcohol odor
Odor Threshold	Unknown
pH	Unknown
Melting Point/ Freezing Point	Unknown
Initial Boiling Point	Unknown
Flash Point	Unknown
Evaporation Rate	Unknown
Flammability (solid, gas)	Unknown
Upper/Lower Flammability Limits	Unknown
Vapor Pressure	Unknown
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

Section 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 oxidizers, silver salts, acid chlorides, alkali metals, metal hydrides, hydrazine.
10.6 Hazardous Decomposition Materials	Will not occur.

Section 11. Toxicological Information

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

Section 12. Ecological Information

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

Section 13. Disposal Considerations

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

Section 14. Transport Information

14.1 UN Number DOT, IATA,IMDG, ADR	DOT: 1170 ADR/RID: 1170 IMDG: 1170 IATA: 1170
14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR	ADR/RID: Ethanol Solutions IMDG: Ethanol Solutions IATA: Ethanol Solutions DOT: Ethanol Solutions
14.3 Transport Hazard Class(es)	DOT: Class 3 IATA: Class 3 IMDG: Class 3 ADR/RID: Class 3
14.4 Packing Group DOT, IATA,IMDG, ADR	ADR/RID: II IMDG: II IATA: II DOT: II
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
Extremely Hazardous Substances; Section 355	None of the components in this mixture are listed.
Toxic Substances Control Act; TSCA	All of the components in this mixture are listed.
California Proposition 65	None of the components in this mixture are listed.
Right To Know Components	<u>Ethanol</u> Massachusetts Pennsylvania New jersey <u>Isopropanol</u> Massachusetts Pennsylvania New jersey
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
R phrases	R11 EN: Highly flammable. DA: Meget brandfarlig. DE: Leichtentzündlich. EL: Πολύ εύφλεκτο.

	<p>ES: Fácilmente inflamable. FR: Facilement inflammable. IT: Facilmente infiammabile. NL: Licht ontvlambaar. PT: Facilmente inflamável. SV: Mycket brandfarligt.</p> <p>R36 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>
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	<p>ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico.</p> <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: 03/13/2019


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

1.1 Product Identifier	Product Name: Twort's Fast Green (Part B) Product Number: SSC1148	
1.2 Intended use	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.	
1.3 Details of the supplier of the safety data sheet	Manufacturer	Cancer Diagnostics, Inc.
	Address	116 Page Point Circle Durham, NC 27703
	Phone Number	1-877-846-5393
	Fax Number	1-877-817-1716
	e-mail	compliance@cancerdiagnostics.com
	Website	www.cancerdiagnostics.com/sds

Section 2. Hazards Identification

2.1 GHS Classification	Flammable liquids (Category 2) – H225 Skin irritation (Category 2) – H315 Eye irritation (Category 2A) – H319 Specific target organ toxicity (Category 3), Central nervous system – H336
Classification: Directive 1999/45/EC	 <p>F R11, R36; S7, S16, S24/25 S26 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>For full text of R- & S- phrases: see Section 15.</p>





2.2 Label Elements	Pictogram(s):   Signal word: Danger Hazard statement(s): H226 – Flammable liquid and vapour H319 – Causes serious eye irritation H315 – Causes skin irritation H336 – May cause drowsiness or dizziness Precautionary statement(s): P210 – Keep away from heat/sparks/open flames/hot surfaces – No smoking P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 – IF IN EYES: Rinse cautiously with water for several minutes.								
NFPA Scale: 0-4									
HMIS (U.S.A.) Scale: 0-4	<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>G</td> </tr> </table>	HEALTH	1	FLAMMABILITY	3	PHYSICAL HAZARD	0	PERSONAL PROTECTION	G
HEALTH	1								
FLAMMABILITY	3								
PHYSICAL HAZARD	0								
PERSONAL PROTECTION	G								
2.3 Other Hazards	PBT: This mixture does not contain any substances that are assessed to be a PBT. vPvB: 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.	≤ 95
Isopropanol	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.	≤ 5
Fast Green FCF	2353-45-9	219-091-5	 Warning 2H341 suspected	≤ 0.5



			of causing genetic defects.	
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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. Get medical attention if irritation continues.
Skin Contact: Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.
Inhalation: If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.
Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.
4.2 Most important symptoms and effects, both acute and delayed
 See section 2.2 and 11.
4.3 Indication of any immediate medical attention and special treatment needed
 No data available

Section 5. Fire Fighting Measures

5.1 Extinguishing Media	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
5.2 Special hazards arising from the substance or mixture	No unusual fire or explosive hazards expected
5.3 Advice for firefighters	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

8.1 Control parameters	Exposure Limits:
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	<i>Ethanol:</i> NIOSH REL: 1000 ppm (1900 mg/m ³) TWA OSHA PEL: 1000 ppm (1900 mg/m ³) TWA ACGIH TLV: 1000ppm (1900mg/m ³) TWA <i>Isopropanol:</i> NIOSH REL: TWA 400 ppm (980 mg/m ³) ST 500 ppm (1225 mg/m ³) OSHA PEL: TWA 400 ppm (980 mg/m ³) ACGIH TLV: TWA 200 ppm STEL 400 ppm
8.2 Exposure controls	Personal Protective Equipment (PPE): Eye/Face protection. Safety glasses or goggles are required. Skin protection. Protective clothing is required. Hand protection. 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. Respiratory protection. Avoid breathing vapor. Environmental exposure controls. Avoid releasing large quantities into the environment. No additional information.
Engineering Controls	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

Physical State	Liquid
Color	Green
Odor	Mild alcohol odor
Odor Threshold	Unknown
pH	Unknown
Melting Point/ Freezing Point	Unknown
Initial Boiling Point	Unknown
Flash Point	Unknown
Evaporation Rate	Unknown
Flammability (solid, gas)	Unknown
Upper/Lower Flammability Limits	Unknown
Vapor Pressure	Unknown
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

Section 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 oxidizers, silver salts, acid chlorides, alkali metals, metal hydrides, hydrazine.
10.6 Hazardous Decomposition Materials	Will not occur.

Section 11. Toxicological Information

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

Section 12. Ecological Information

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

Section 13. Disposal Considerations

13.1 Waste Disposal Methods.	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.
Product/Packaging Disposal.	Final decisions on the appropriate waste management method must be in line with local, regional and

	national regulations.
Other Disposal Recommendations.	No relevant data available.

Section 14. Transport Information

14.1 UN Number DOT, IATA,IMDG, ADR	DOT: 1170 ADR/RID: 1170 IMDG: 1170 IATA: 1170
14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR	ADR/RID: Ethanol Solutions IMDG: Ethanol Solutions IATA: Ethanol Solutions DOT: Ethanol Solutions
14.3 Transport Hazard Class(es)	DOT: Class 3 IATA: Class 3 IMDG: Class 3 ADR/RID: Class 3
14.4 Packing Group DOT, IATA,IMDG, ADR	ADR/RID: II IMDG: II IATA: II DOT: II
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
Extremely Hazardous Substances; Section 355	None of the components in this mixture are listed.
Toxic Substances Control Act; TSCA	All of the components in this mixture are listed.
California Proposition 65	None of the components in this mixture are listed.
Right To Know Components	<u>Ethanol</u> Massachusetts Pennsylvania New jersey <u>Isopropanol</u> Massachusetts Pennsylvania New jersey
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
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Revision Date: 2019-01-11

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