




Formalin Solution 20%



1. Identification

1.1 Product Identifier	Product Name: Formalin Solution (20%) Product Number: SSC1161-125, SSC1161-1000	
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	4300 Emperor Blvd. #400 Durham, NC 27703
	Phone Number	1-877-846-5393
	Fax Number	1-877-817-1716
	e-mail	compliance@cancerdiagnostics.com
	Website	www.cancerdiagnostics.com

2. Hazards Identification

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

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







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3. Composition and Information on Ingredients

3.2 Chemical Description: Mixture

*May contain additional non-hazardous proprietary ingredients.

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

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

4. First Aid Measures

4.1 Description of first aid measures

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

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

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

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

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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	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.

9. Physical and Chemical Properties

Physical State	Liquid
Color	Colorless
Odor	Strong formalin 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

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	Slightly reactive with oxidizing agents.
10.6 Hazardous Decomposition Materials	Carbon Monoxide, Carbon Dioxide

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11. Toxicological Information

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

12. Ecological Information


12.1 Toxicity	<p>Fish: No relevant studies identified. Crustacea: No relevant studies identified. Algae/Aquatic Plants: No relevant studies identified. Other Organisms: No relevant studies identified.</p>
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.	<p>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.</p>

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.

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14. Transport Information

14.1 UN Number DOT, IATA,IMDG, ADR	DOT: 1198 ADR/RID: 1198 IMDG: 1198 IATA: 1198
14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR	ADR/RID: Formaldehyde Solution IMDG: Formaldehyde Solution IATA: Formaldehyde Solution DOT: Formaldehyde Solution
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: III IMDG: III IATA: III DOT: III
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

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

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	<p>FR: Toxique par contact avec la peau et par ingestion. IT: Tossico a contatto con la pelle e per ingestione. NL: Vergiftig bij aanraking met de huid en bij opname door de mond. PT: Tóxico em contacto com a pele e por ingestão. SV: Giftigt vid hudkontakt och förtäring.</p> <p>R38 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>R45 EN: May cause cancer. DA: Kan fremkalde kræft. DE: Kann Krebs erzeugen. FR: Peut provoquer le cancer. IT: Può provocare il cancro. ES: Puede causar cáncer. FR: Risque de lésions oculaires graves. IT: Rischio di gravi lesioni oculari. NL: Gevaar voor ernstig oogletsel. PT: Risco de lesões oculares graves. SV: Risk för allvarliga ögonskador.</p> <p>R41 EN: Risk of serious damage to eyes. DA: Risiko for alvorlig øjensskade. DE: Gefahr ernster Augenschäden. EL: Κίνδυνος σοβαρών οφθαλμικών βλαβών. ES: Riesgo de lesiones oculares graves. FR: Risque de lésions oculaires graves. IT: Rischio di gravi lesioni oculari. NL: Gevaar voor ernstig oogletsel. PT: Risco de lesões oculares graves. SV: Risk för allvarliga ögonskador.</p> <p>R43 EN: May cause sensitisation by skin contact. DA: Kan give overfølsomhed ved kontakt med huden. DE: Sensibilisierung durch Hautkontakt möglich. EL: Μπορεί να προκαλέσει ευαισθητοποίηση σε επαφή με το δέρμα. ES: Posibilidad de sensibilización en contacto con la piel. FR: Peut entraîner une sensibilisation par contact avec la peau. IT: Può provocare sensibilizzazione per contatto con la pelle. NL: Kan overgevoeligheid veroorzaken bij contact met de huid. PT: Pode causar sensibilização em contacto com a pele. SV: Kan ge allergi vid hudkontakt.</p> <p>R60 EN: This material and its container must be disposed of as hazardous waste. DA: Kan skade forplantningsevnen. DE: Dieses Produkt und sein Behälter sind als gefährlicher Abfall zu entsorgen. EL: Μπορεί να εξασθενήσει τη γονιμότητα. ES: Elimínense el producto y su recipiente como residuos peligrosos. FR: Eliminer le produit et son récipient comme un déchet dangereux. IT: Questo materiale e il suo contenitore devono essere smaltiti come rifiuti pericolosi.</p>
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	<p>NL: Kan de vruchtbaarheid schaden. PT: Pode comprometer a fertilidade. SV: Kan ge nedsatt fortplantningsförmåga.</p>
<p>S phrases</p>	<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>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>S36/37/39 EN: Wear suitable protective clothing, gloves and eye/face protection. DA: Brug særligt arbejdstøj, egnede beskytteshandsker og -briller/ansigtsskærm. DE: Bei der Arbeit geeignete Schutzkleidung, Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen. EL: Φοράτε κατάλληλη προστατευτική ενδυμασία, γάντια και συσκευή προστασίας ματιών/προσώπου ES: Úsense indumentaria y guantes adecuados y protección para los ojos/la cara. FR: Porter un vêtement de protection appropriée, des gants et un appareil de protection des yeux/du visage. IT: Usare indumenti protettivi e guanti adatti e proteggersi gli occhi/la faccia. NL: Draag geschikte beschermende kleding, handschoenen en een beschermingsmiddel voor de ogen/het gezicht. PT: Usar vestuário de protecção, luvas e equipamento protector para os olhos /face adequados. SV: Använd lämpliga skyddskläder, skyddshandskar samt skyddsglasögon eller ansiktsskydd.</p> <p>S45</p>

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

Revision Date: 2019-01-11

Notice to Reader:

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