Section 1. Identification

1.1 Product Identifier	Product Name: Phosphate Buffer Solution, pH 6.8 Product Number: SSC1145
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 Classification: Regulation (EC) No 1272/2008 (CLP)	Not a hazardous mixture as classified by Regulation (EC) No 1272/2008 (CLP)
Classification: OSHA 29 CFR 1910.1200 HCS	Not a hazardous mixture as classified by OSHA 29 CFR 1910.1200 HCS (GHS)
Classification: Directive 1999/45/EC	Not a hazardous mixture as classified by Directive 1999/45/EC For full text of R- & S- phrases: see Section 15.
2.2 Label Elements	Pictogram: Not a hazardous mixture Signal word: Not a hazardous mixture Hazard Statement(s): Not a hazardous mixture Precautionary Statements(s): Not a hazardous mixture
NFPA Scale: 0-4	

HMIS (U.S.A.) Scale: 0-4	HEALTH	**1**
	FLAMMABILITY	**0**
	PHYSICAL HAZARD	**0**
	PERSONAL PROTECTION	**A**
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	%
Sodium Phosphate, Monobasic	7558-80-7	231-449-2	Warning. 2 H315 Causes skin irritation.	≤ 0.7
Sodium Phosphate, Dibasic	7558-79-4	231-448-7	Warning. 2 H315 Causes skin irritation.	≤ 0.3

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. 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	May produce toxic fumes of phosphoxides and sodium oxides under fire conditions.
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:** **N/A**
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	Transparent
Odor	Odorless
Odor Threshold	Unknown
pH	6.8 ± 0.09
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 acids, and oxidizers.
10.6 Hazardous Decomposition Materials	Toxic fumes of phosphoxides and sodium oxides.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	**Acute Toxicity.** No relevant data available **Skin Corrosion/Irritation.** May be irritating to skin and mucous membranes. **Serious Eye Damage/Irritation.** May be irritating to eyes. **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: Not dangerous goods ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
14.2 UN Proper Shipping Name **DOT, IATA,IMDG, ADR**	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods DOT: Not dangerous goods
14.3 Transport Hazard Class(es)	**DOT:** Not dangerous goods **IATA:** Not dangerous goods **IMDG:** Not dangerous goods **ADR/RID:** Not dangerous goods
14.4 Packing Group **DOT, IATA,IMDG, ADR**	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods DOT: Not dangerous goods
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	None of the components in this mixture are listed.
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture by Cancer Diagnostics, Inc.
R phrases	**R36/38** 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.
S phrases	**S2** EN: Keep out of the reach of children. DA: Opbevares utilgængeligt for børn. DE: Darf nicht in die Hände von Kindern gelangen. EL: Μακριά από παιδιά. ES: Manténgase fuera del alcance de los niños. FR: Conserver hors de la portee des enfants. IT: Conservare fuori della portata dei bambini. NL: Buiten bereik van kinderen bewaren. PT: Manter fora do alcance das crianças. SV: Förvaras oåtkomligt för barn.

Section 16. Other Information

Revision Date: 2019-01-11

Notice to Reader:

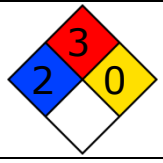
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Section 1. Identification

1.1 Product Identifier	Product Name: Giemsa Stock Solution Product Number: SSC1164
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 Classification: Regulation (EC) No 1272/2008 (CLP)	Flammable liquids (Category 2), H225 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311 Acute toxicity, Oral (Category 3), H301 Specific target organ toxicity - single exposure (Category 1), H370
Classification: OSHA 29 CFR 1910.1200 HCS	**OSHA Hazards:** Flammable liquid, Target Organ Effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption. **Target Organs:** Eyes, Kidney, Liver, Heart, Central nervous system. **GHS Classification:** Flammable liquids (Category 2) Acute toxicity, Oral (Category 3) Acute toxicity, Inhalation (Category 3) Acute toxicity, Dermal (Category 3) Skin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure (Category 1)
Classification: Directive 1999/45/EC	 **F, R11, S16** 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 **T R39/23/24/25, S1/2, S7, S36/37, S45** EN: Toxic DA: Giftig DE: Giftig EL: Τοξικό ES: Tóxico FR: Toxique IT: Tossico NL: Vergiftig PT: Tóxico SV: Giftig For full text of R- & S- phrases: see Section 15.
2.2 Label Elements	Pictogram(s): Signal Word: Danger Hazard Statement(s): H225 – Highly flammable liquid and vapour H301 – Toxic if swallowed H311 – Toxic in contact with skin H370 – Causes damage to organs Precautionary statement(s): P202 – Do not handle until all safety precautions on the SDS have been read and understood Precautionary statements not listed on label: P302 + P350 – IF ON SKIN: Gently 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 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P210 – Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P260 – Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
NFPA **Scale: 0-4**	

HMIS (U.S.A.) Scale: 0-4	HEALTH	**2**
	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	%
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.	≤ 50
Glycerine	56-81-5	200-289-5	N/A	≤ 50
Giemsa Stain	51811-82-6	257-438-2	Danger. 2 H318 Causes serious eye damage.	≤ 0.8

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 or symptoms develop.

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	Methanol vapor is heavier than air and can travel along the ground to a distant ignition source and flash back.
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:** Methanol: **NIOSH REL**: TWA 200 ppm (260 mg/m^3) ST 250 ppm (325 mg/m^3) [skin] **OSHA PEL**: TWA 200 ppm (260 mg/m^3) **ACGIH TLV:** TWA 200 ppm (262 mg/m^3) STEL 250 ppm (328 mg/m^3)
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	Dark blue/violet liquid
Odor	Mild alcohol odor

116 Page Point Circle | Durham, NC 27703 USA
www.cancerdiagnostics.com

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 inorganic acids, aluminum, lead, and oxidizing agents.
10.6 Hazardous Decomposition Materials	Carbon monoxide, carbon dioxide.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	**Acute Toxicity.** **Methanol:** Oral LD50 LDLO Oral - Human - 143 mg/kg 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 **Skin Corrosion/Irritation.** May be 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: 1230 ADR/RID: 1230 IMDG: 1230 IATA: 1230
14.2 UN Proper Shipping Name **DOT, IATA,IMDG, ADR**	ADR/RID: Methanol IMDG: Methanol IATA: Methanol DOT: Methanol
14.3 Transport Hazard Class(es)	DOT: 3 IATA: 3 IMDG: 3 ADR/RID:3
14.4 Packing Group	ADR/RID: II

DOT, IATA,IMDG, ADR	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	**Methanol:** Pennsylvania Massachusetts New Jersey
Other Regulations	*SARA 313 Components:* Methanol
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. ES: Fácilmente inflamable. FR: Facilement inflammable. IT: Facilmente infiammabile. NL: Licht ontvlambaar. PT: Facilmente inflamável. SV: Mycket brandfarligt. **R39/23/24/25** EN: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. DA: Giftig: fare for varig alvorlig skade på helbred ved indånding, hudkontakt og indtagelse. DE: Giftig: ernste Gefahr irreversiblen Schadens durch Einatmen, Berührung mit der Haut und durch Verschlucken. EL: Τοξικό: κίνδυνος πολύ σοβαρών μόνιμων επιδράσεων όταν εισπνέεται, σε επαφή με το δέρμα και σε περίπτωση καταπόσεως. ES: Tóxico: peligro de efectos irreversibles muy graves por inhalación, contacto con la piel e ingestión. FR: Toxique: danger d'effets irréversibles très graves par inhalation, par contact avec la peau et par ingestion. IT: Tossico: pericolo di effetti irreversibili molto gravi per inalazione, a contatto con la pelle e per ingestione. NL: Vergiftig: gevaar voor ernstige onherstelbare effecten bij inademing, aanraking met de huid en opname door de mond. PT: Tóxico: perigo de efeitos irreversíveis muito graves por inalação, em contacto com a pele e por ingestão. SV: Giftigt: risk för mycket allvarliga bestående hälsoskador vid inandning, hudkontakt och förtäring.
S phrases	**S1/2** 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. **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. **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'etincelles - 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. **S36/37** EN: Wear suitable protective clothing and gloves. DA: Brug særligt arbejdstøj og egnede beskyttelseshandsker. DE: Bei der Arbeit geeignete Schutzhandschuhe und Schutzkleidung tragen. EL: Φοράτε κατάλληλη προστατευτική ενδυμασία και γάντια. ES: Úsense indumentaria y guantes de protección adecuados. FR: Porter un vêtement de protection et des gants appropriés. IT: Usare indumenti protettivi e guanti adatti. NL: Draag geschikte handschoenen en beschermende kleding. PT: Usar vestuário de protecção e luvas adequadas. SV: Använd lämpliga skyddskläder och skyddshandskar. **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 la etiqueta). FR: En cas d'accident ou de malaise, consulter immediatement un medecin (si possible lui montrer l'etiquette). IT: In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l`etichetta). NL: Bij een ongeval of indien men zich onwel voelt, onmiddellijk een arts raadplegen (indien mogelijk hem dit etiket tonen). PT: Em caso de acidente ou de indisposição, consultar imediatamente o médico (se possível

	mostrar-lhe o rótulo). SV: Vid olycksfall, illamående eller annan påverkan, kontakta omedelbart läkare. Visa om möjligt etiketten.

Section 16. Other Information

Revision Date: 2019-01-11

Notice to Reader:

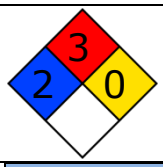
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Section 1. Identification

1.1 Product Identifier	Product Name: May-Grunwald Stock Solution Product Number: SSC1179
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 Classification: Regulation (EC) No 1272/2008 (CLP)	Flammable liquids (Category 2), H225 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311 Acute toxicity, Oral (Category 3), H301 Specific target organ toxicity - single exposure (Category 1), H370
Classification: OSHA 29 CFR 1910.1200 HCS	**OSHA Hazards:** Flammable liquid, Target Organ Effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption. **Target Organs:** Eyes, Kidney, Liver, Heart, Central nervous system. **GHS Classification:** Flammable liquids (Category 2) Acute toxicity, Oral (Category 3) Acute toxicity, Inhalation (Category 3) Acute toxicity, Dermal (Category 3) Skin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure (Category 1)
Classification: Directive 1999/45/EC	 **F, 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 **T, R23/24/25, R39/23/24/25** EN: Toxic DA: Giftig DE: Giftig EL: Τοξικό ES: Tóxico FR: Toxique IT: Tossico NL: Vergiftig PT: Tóxico SV: Giftig For full text of R- & S- phrases: see Section 15.
2.2 Label Elements	Pictogram(s): Signal Word: Danger Hazard Statement(s): H225 – Highly flammable liquid and vapour H301 – Toxic if swallowed H311 – Toxic in contact with skin H370 – Causes damage to organs Precautionary statement(s): P202 – Do not handle until all safety precautions have been read and understood Precautionary statements not listed on label: P302 + P350 – IF ON SKIN: Gently 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 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P210 – Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P260 – Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
NFPA **Scale: 0-4**	
HMIS (U.S.A.) **Scale: 0-4**	HEALTH **2**

	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	%
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.	≤ 100
May-Grunwald Stain	N/A	N/A	Warning. 4 H302 Harmful if swallowed. 4 H312 Harmful in contact with skin. 2 H315 Causes skin irritation. 2 H319 Causes serious eye irritation. 3 H335 May cause respiratory irritation.	≤ 0.3

Section 4. First Aid Measures

4.1 Description of first aid measures

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

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

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 continue.

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

Swallowing this product may cause stomach ache, nausea, vomiting, and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

Get immediate medical attention if product is swallowed or large amounts are spilled on skin or in eyes.

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	Hazardous decomposition products formed under fire conditions. - Carbon oxides.

arising from the substance or mixture	
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:** Methanol: **NIOSH REL**: TWA 200 ppm (260 mg/m^3) ST 250 ppm (325 mg/m^3) [skin] **OSHA PEL**: TWA 200 ppm (260 mg/m^3) **ACGIH TLV:** TWA 200 ppm (262 mg/m^3) STEL 250 ppm (328 mg/m^3)
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	Dark purple/red
Odor	Odorless
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	Acids, Oxidizing agents, Alkali metals, Acid chlorides, Acid anhydrides, Reducing agents, Strong inorganic acids, aluminum, lead.
10.6 Hazardous Decomposition Materials	Carbon oxides.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	**Acute Toxicity.** **Methanol:** Oral LD50 LDLO Oral - Human - 143 mg/kg LD50 Oral - rat - 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 **Skin Corrosion/Irritation.** May be irritating to skin and mucous membranes. **Serious Eye Damage/Irritation.** May be irritating to eye. May cause serious damage to eye if swallowed. **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: 1230 ADR/RID: 1230 IMDG: 1230 IATA: 1230
14.2 UN Proper Shipping Name	ADR/RID: METHANOL, SOLUTION IMDG: METHANOL, SOLUTION

DOT, IATA,IMDG, ADR	IATA: Methanol, solution DOT: Methanol, 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: 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	Methanol is listed as a having developmental toxicity.
Right To Know Components	**Methanol:** 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. ES: Fácilmente inflamable. FR: Facilement inflammable. IT: Facilmente infiammabile. NL: Licht ontvlambaar. PT: Facilmente inflamável. SV: Mycket brandfarligt. **R23/24/25** EN: Toxic by inhalation, in contact with skin and if swallowed. DA: Giftig ved indånding, ved hudkontakt og ved indtagelse. DE: Giftig beim Einatmen, Verschlucken und Berührung mit der Haut. EL: Τοξικό όταν εισπνέεται, σε επαφή με το δέρμα και σε περίπτωση καταπόσεως. ES: Tóxico por inhalación, por ingestión y en contacto con la piel. FR: Toxique par inhalation, par contact avec la peau et par ingestion. IT: Tossico per inalazione, contatto con la pelle e per ingestione. NL: Vergiftig bij inademing, opname door de mond en aanraking met de huid. PT: Tóxico por inalação, em contacto com a pele e por ingestão. SV: Giftigt vid inandning, hudkontakt och förtäring.

	R39/23/24/25 EN: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. DA: Giftig: fare for varig alvorlig skade på helbred ved indånding, hudkontakt og indtagelse. DE: Giftig: ernste Gefahr irreversiblen Schadens durch Einatmen, Berührung mit der Haut und durch Verschlucken. EL: Τοξικό: κίνδυνος πολύ σοβαρών μόνιμων επιδράσεων όταν εισπνέεται, σε επαφή με το δέρμα και σε περίπτωση καταπόσεως. ES: Tóxico: peligro de efectos irreversibles muy graves por inhalación, contacto con la piel e ingestión. FR: Toxique: danger d'effets irréversibles très graves par inhalation, par contact avec la peau et par ingestion. IT: Tossico: pericolo di effetti irreversibili molto gravi per inalazione, a contatto con la pelle e per ingestione. NL: Vergiftig: gevaar voor ernstige onherstelbare effecten bij inademing, aanraking met de huid en opname door de mond. PT: Tóxico: perigo de efeitos irreversíveis muito graves por inalação, em contacto com a pele e por ingestão. SV: Giftigt: risk för mycket allvarliga bestående hälsoskador vid inandning, hudkontakt och förtäring.
S phrases	**S1/2** 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. **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. **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'etincelles - 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. **S36/37** EN: Wear suitable protective clothing and gloves. DA: Brug særligt arbejdstøj og egnede beskyttelseshandsker. DE: Bei der Arbeit geeignete Schutzhandschuhe und Schutzkleidung tragen. EL: Φοράτε κατάλληλη προστατευτική ενδυμασία και γάντια. ES: Úsense indumentaria y guantes de protección adecuados.

	FR: Porter un vêtement de protection et des gants appropriés. IT: Usare indumenti protettivi e guanti adatti. NL: Draag geschikte handschoenen en beschermende kleding. PT: Usar vestuário de protecção e luvas adequadas. SV: Använd lämpliga skyddskläder och skyddshandskar. **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 la etiqueta). FR: En cas d'accident ou de malaise, consulter immediatement un medecin (si possible lui montrer l'etiquette). IT: In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l`etichetta). NL: Bij een ongeval of indien men zich onwel voelt, onmiddellijk een arts raadplegen (indien mogelijk hem dit etiket tonen). PT: Em caso de acidente ou de indisposição, consultar imediatamente o médico (se possível mostrar-lhe o rótulo). SV: Vid olycksfall, illamående eller annan påverkan, kontakta omedelbart läkare. Visa om möjligt etiketten.

Section 16. Other Information

Revision Date: 2019-01-11

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