

Revision Date 2023-11-09

Version 2

SAFETY DATA SHEET

| 1. IDENTIFICATION | | | |
|---------------------|--|--|--|
| Product Name | Wright Stain Solution, Buffered, Improved | | |
| Product Code | SSC1194 | | |
| Recommended Use | For laboratory, scientific, R&D or manufacturing use. | | |
| Company | Cancer Diagnostics, Inc. 116 Page Point Circle Durham, NC 27703 Tel. (877) 846-5393 | | |
| Emergency Telephone | Call CHEMTREC 1-800-424-9300 | | |

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Acute toxicity - Oral | Category 3 |
|--|-------------|
| Acute toxicity - Dermal | Category 3 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 3 |
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2A |
| Specific target organ toxicity (single exposure) | Category 1 |
| Flammable liquids | Category 2 |

Label elements

Signal word

Danger

Hazard statements

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes skin irritation. Causes serious eye irritation. Causes damage to organs.

Highly flammable liquid and vapor.



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear

protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep cool.

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

In case of fire: Use CO2, dry chemical, or foam for extinction.

Precautionary Statements - Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | Weight-% |
|---------------------------|------------|----------|
| Methyl alcohol | 67-56-1 | ~95 |
| Glycerol | 56-81-5 | <=5 |
| Acetic acid | 64-19-7 | <=2 |
| Wright stain | 68988-92-1 | <=1 |
| Sodium Acetate, Anhydrous | 127-09-3 | <=1 |

4. FIRST AID MEASURES

Description of first aid measures

| Eye contact | Immediately flush with plenty of water for at least 15 minutes, separating eyelids occasionally. Remove contact lenses if present. Get immediate medical attention. |
|----------------------------------|---|
| Skin contact | Wash thoroughly with soap and water while removing contaminated garments. Get medical attention if irritation develops. |
| Inhalation | Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. |
| Ingestion | Do NOT induce vomiting unless instructed to do so by medical personnel. If conscious, rinse mouth and give several glasses of water to drink. Never give anything by mouth to an unconscious person. Get immediate medical attention. |
| Most important symptoms and effe | cts, both acute and delayed |

SymptomsCauses skin and eye irritation. If swallowed or inhaled, causes irritation. Intoxicant. May
cause headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma, and death.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment Water spray (fog) CO2,

dry chemical, dry sand, alcohol-resistant foam

Specific hazards arising from the chemical

Vapors can flow along surfaces to distant ignition sources and flash back. May form explosive mixtures with air.

Hazardous combustion productsCarbon dioxide (CO2).

Protective equipment and precautions for firefighters

Firefighters should wear self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

| <u>NFPA</u> | Health hazards 1 | Flammability 3 | Instability 0 | Physical and Chemical Properties - |
|-----------------|---------------------------------|---|---------------------------|--|
| | 6. ACC | IDENTAL RELEAS | E MEASURES | |
| Personal preca | utions, protective equipment a | and emergency procedu | <u>ires</u> | |
| Personal preca | Ensure a | | | ures against static discharges. Wear protective gloves/protective |
| Environmental | precautions Prevent p | product from entering dra | ins. | |
| Methods and m | aterial for containment and clo | eaning up | | |
| Methods for co | ntainment Prevent f | urther leakage or spillage | e if safe to do so. | |
| Methods for cle | aning up Absorb s | pill with inert material, sco | oop up and containerize | for disposal. |
| | 7. | HANDLING AND S | TORAGE | |
| Advice on safe | protective Keep awa | e equipment as required. | Take precautionary mea | fety practice. Use personal asures against static discharges. ignition (i.e., pilot lights, electric |
| Storage Conditi | | tainers tightly closed in a le Liquids storage area. | cool, well-ventilated pla | ace. Store in an approved |
| Incompatible m | aterials Strong ox | kidizing agents. Aluminun | n. Zinc. | |
| | 8. EXPOSURE | CONTROLS/PERS | ONAL PROTECTIO | ON |

Occupational exposure limits

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|----------------|---------------|---|-----------------------------|
| Methyl alcohol | STEL: 250 ppm | TWA: 200 ppm | IDLH: 6000 ppm |
| 67-56-1 | TWA: 200 ppm | TWA: 260 mg/m ³ | TWA: 200 ppm |
| | Skin | (vacated) TWA: 200 ppm | TWA: 260 mg/m ³ |
| | | (vacated) TWA: 260 mg/m ³ | STEL: 250 ppm |
| | | (vacated) STEL: 250 ppm | STEL: 325 mg/m ³ |
| | | (vacated) STEL: 325 mg/m ³ | - |
| | | (vacated) Skin | |
| Glycerol | - | TWA: 15 mg/m ³ mist, total | - |
| 56-81-5 | | particulate | |
| | | TWA: 5 mg/m ³ mist, respirable | |
| | | fraction | |
| | | (vacated) TWA: 10 mg/m ³ mist, | |
| | | total particulate | |
| | | (vacated) TWA: 5 mg/m ³ mist, | |

| | | respirable fraction | | |
|---|---|---|----------------------------|--|
| Acetic acid | STEL: 15 ppm | TWA: 10 ppm | IDLH: 50 ppm | |
| 64-19-7 | TWA: 10 ppm | TWA: 25 mg/m ³ | TWA: 10 ppm | |
| | | (vacated) TWA: 10 ppm | TWA: 25 mg/m ³ | |
| | | (vacated) TWA: 25 mg/m ³ | STEL: 15 ppm | |
| | | | STEL: 37 mg/m ³ | |
| Appropriate engineering control | <u>s</u> | | | |
| Engineering Controls | Emergency showers, eye | Emergency showers, eyewash stations, ventilation systems. | | |
| Individual protection measures, such as personal protective equipment | | | | |
| Eye/face protection | Tight sealing safety goggl | Tight sealing safety goggles. | | |
| Skin and body protection | Wear protective gloves ar | Wear protective gloves and protective clothing. Wear fire/flame resistant/retardant clothing. | | |
| Respiratory protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. | | | |
| General Hygiene Considerations | Handle in accordance with good industrial hygiene and safety practice. | | | |

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| Physical state | Liquid |
|--|--|
| Appearance | Dark Purple / Blue Solution |
| Odor | Methanol |
| Odor threshold | No information available |
| pH Melting point / freezing point Boiling point / boiling range Flash point Evaporation rate Flammability (solid, gas) Flammability Limit in Air | No information available -98 C 64.5 C 12 C 5.9 No information available |
| Upper flammability limit: | 36 % |
| Lower flammability limit: | 6 % |
| Vapor pressure | 12.93 |
| Vapor density | 1.1 |
| Relative density | 0.8 |
| Water solubility | Miscible with water |
| Solubility in other solvents | No information available |
| Partition coefficient | No information available |
| Autoignition temperature | 464 C |
| Decomposition temperature | No information available |
| Kinematic viscosity | No information available |

10. STABILITY AND REACTIVITY

| Stability | Stable under recommended storage conditions. |
|------------------------------------|---|
| Possibility of Hazardous Reactions | Risk of explosion with oxidizing agents, perchlorates, nitrogen oxides, halogens, hydrogen peroxide, nitric acid. |
| Conditions to avoid | Extremes of temperature and direct sunlight Sources of ignition |

Incompatible materials

Strong oxidizing agents. Aluminum. Zinc.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2). Formaldehyde.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| Inhalation | Toxic by inhalation. |
|--------------|------------------------------|
| Eye contact | Severely irritating to eyes. |
| Skin contact | Toxic in contact with skin. |

Ingestion Toxic if swallowed.

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------------------------------|--------------------|-----------------------|----------------------|
| Methyl alcohol 67-56-1 | = 5628 mg/kg (Rat) | - | = 83.2 mg/L (Rat)4 h |
| Glycerol 56-81-5 | - | > 10 g/kg (Rabbit) | > 570 mg/m³ (Rat)1 h |
| Acetic acid 64-19-7 | = 3310 mg/kg (Rat) | = 1060 µL/kg (Rabbit) | = 11.4 mg/L (Rat)4 h |
| Sodium Acetate, Anhydrous 127-09-3 | = 3530 mg/kg (Rat) | > 10 g/kg (Rabbit) | > 30 g/m³ (Rat)1 h |

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

 Sensitization
 No information available.

 Germ cell mutagenicity
 No information available.

 Carcinogenicity
 This chemical does not contain any carcinogens or potential carcinogens as listed by ACGIH, OSHA, IARC or NTP

 STOT - single exposure
 - Respiratory system

 - Central nervous system
 - Optic nerve

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|---------------------------------------|----------------------|---|--|
| Methyl alcohol 67-56-1 | - | 28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through | - |
| Glycerol 56-81-5 | - | 51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static | 500: 24 h Daphnia magna mg/L EC50 |
| Acetic acid 64-19-7 | - | 79: 96 h Pimephales promelas mg/L LC50 static 75: 96 h Lepomis macrochirus mg/L LC50 static | 47: 24 h Daphnia magna mg/L EC50 65: 48 h Daphnia magna mg/L EC50 Static |
| Sodium Acetate, Anhydrous 127-09-3 | - | 5000: 24 h Lepomis macrochirus mg/L LC50 static | 1000: 48 h Daphnia magna mg/L EC50 |

Persistence and degradability

No information available.

Bioaccumulation

No information available.

| Chemical Name | Partition coefficient |
|---------------------------|-----------------------|
| Methyl alcohol 67-56-1 | -0.77 |
| Glycerol 56-81-5 | -1.76 |
| Acetic acid 64-19-7 | -0.31 |

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container. Emptied containers may contain residue. Continue to follow label warnings after container is emptied.

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|----------------|------|---------------------------|------------------------|------------------------|
| Methyl alcohol | - | Included in waste stream: | - | U154 |
| 67-56-1 | | F039 | | |

| Chemical Name | California Hazardous Waste Status |
|----------------|-----------------------------------|
| Methyl alcohol | Toxic |
| 67-56-1 | Ignitable |
| Acetic acid | Toxic |
| 64-19-7 | Corrosive |
| | Ignitable |

14. TRANSPORT INFORMATION

Transportation information is provided as a general reference only and may not be applicable in all situations. This information applies to non-bulk shipments only. Per 49 CFR §173.22, it is the shipper's responsibility to ensure that all materials are properly packaged, classified and labeled prior to shipment.

| DOT | |
|---|------------------------------------|
| UN/ID no. | 1230 |
| Proper shipping name | Methanol |
| Hazard Class | 3 |
| Packing Group | II |
| Reportable Quantity (RQ) | 5000 lbs |
| IATA UN/ID no. Proper shipping name Hazard Class Subsidiary hazard class Packing Group | 1230 Methanol 3 6.1 II |

15. REGULATORY INFORMATION

US Federal Regulations

DOT

<u>SARA 313</u>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | SARA 313 - Threshold Values % |
|-----------------------------------|-------------------------------|
| Methyl alcohol - 67-56-1 | 1.0 |
| SARA 311/312 Hazard Categories | |
| Acute health hazard | No |
| Chronic Health Hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|------------------------|--------------------------------|------------------------|---------------------------|-------------------------------|
| Acetic acid 64-19-7 | 5000 lb | - | - | Х |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---------------------------|--------------------------|----------------|--|
| Methyl alcohol 67-56-1 | 5000 lb | - | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Acetic acid 64-19-7 | 5000 lb | - | RQ 5000 lb final RQ RQ 2270 kg final RQ |

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical Name | California Proposition 65 | |
|--------------------------|---------------------------|--|
| Methyl alcohol - 67-56-1 | Developmental | |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---------------------------|------------|---------------|--------------|
| Methyl alcohol 67-56-1 | X | X | Х |
| Glycerol 56-81-5 | X | X | Х |
| Acetic acid 64-19-7 | X | X | Х |

16. OTHER INFORMATION

| Prepared By |
|----------------------|
| Revision Date |
| Disclaimer |

CDI Regulatory Affairs (Email: compliance@cancerdiagnostics.com) 2023-11-09

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End of Safety Data Sheet