

Issuing Date 21-Jul-2020

Revision Date 21-Jul-2020

Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** MERIFLUOR® Counterstain**Other means of identification****Product code** 2502**UN/ID No** 3316**Recommended use of the chemical and restrictions on use****Recommended Use** In vitro diagnostic**Uses advised against** No information available**Details of the supplier of the safety data sheet****Manufacturer Address**

Meridian Bioscience, Inc.
3471 River Hills Drive
Cincinnati, Ohio 45244
(800) 343-3858

E-mail Address www.meridianbioscience.com**Emergency telephone number****Emergency telephone** Chemtrec: 1-800-424-9300 for US/ 703-527-3887 outside US**2. HAZARDS IDENTIFICATION****Classification**

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

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 1B
Flammable liquids	Category 3

Hazards not otherwise classified (HNOC)

Not applicable

Label elements**Signal word**

Danger

Hazard statements

Harmful if swallowed

Harmful in contact with skin
 Causes serious eye irritation
 May damage fertility or the unborn child
 Flammable liquid and vapor



Appearance No information available

Physical state Liquid

Odor Alcohol

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment (see .? on this label)
 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 if you feel unwell
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 Wash contaminated clothing before reuse
 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
 Rinse mouth
 In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Information

Toxic to aquatic life with long lasting effects
 Harmful to aquatic life

Unknown acute toxicity 99.91 % of the mixture consists of ingredient(s) of unknown toxicity
 60.27 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
 95.27 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 99.91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 99.91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
 60.27 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%	Trade secret
Ethyl alcohol	64-17-5	35	*
Dimethylformamide	68-12-2	4.64	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures for different exposure routes**

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms/effects, acute and delayed

Symptoms	No information available.
----------	---------------------------

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians	Treat symptomatically.
--------------------	------------------------

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Explosion data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions	Ensure adequate ventilation.
----------------------	------------------------------

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl alcohol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Dimethylformamide 68-12-2	TWA: 5 ppm S*	TWA: 10 ppm TWA: 30 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m ³ (vacated) S* S*	IDLH: 500 ppm TWA: 10 ppm TWA: 30 mg/m ³

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

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	No information available
Color	Purplish/Black
Odor	Alcohol
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	No data available
Melting point / freezing point	No data available	No information available
Boiling point/boiling range	78.6 °C	
Flash Point	29.0 °C	
Evaporation rate	No data available	No information available
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	No information available
Vapor density	No data available	No information available
Relative density	No data available	None known
Water solubility	No data available	Soluble in water
Solubility in other solvents	No data available	No information available
Partition coefficient	No data available	No information available
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	No information available
Kinematic viscosity	No data available	No information available
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content(%)	No information available
Liquid Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
-----------------	---------------------------

Numerical measures of toxicity**Acute toxicity**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	774.00 mg/kg
ATEmix (dermal)	1,121.00 mg/kg
ATEmix (inhalation-dust/mist)	12.84 mg/l

Unknown acute toxicity 99.91 % of the mixture consists of ingredient(s) of unknown toxicity
 60.27 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
 95.27 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 99.91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 99.91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
 60.27 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl alcohol 64-17-5	7060 mg/kg (Rat)	-	124.7 mg/L (Rat) 4 h
Dimethylformamide 68-12-2	2800 mg/kg (Rat) 2000 mg/kg (Rat)	3.2 g/kg (Rat) 1100 mg/kg (Rat)	-

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

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.

Carcinogenicity No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethyl alcohol 64-17-5	A3	Group 1	Known	X
Dimethylformamide 68-12-2	A3	Group 2A	-	X

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity The environmental impact of this product has not been fully investigated.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethyl alcohol 64-17-5	-	13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static 10800: 24 h Daphnia magna mg/L EC50
Dimethylformamide 68-12-2	500: 96 h Desmodesmus subspicatus mg/L EC50	6300: 96 h Lepomis macrochirus mg/L LC50 10410: 96 h Pimephales promelas mg/L LC50 flow-through 9800: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	EC50 = 2000 mg/L 5 min EC50 = 570 mg/L 240 h	7500: 48 h Daphnia magna mg/L EC50 6800 - 13900: 48 h Daphnia magna mg/L EC50 Static 8485: 48 h Daphnia magna mg/L EC50 semi-static

Persistence and degradability No information available.**Bioaccumulation** No information available.

Chemical Name	Partition coefficient
Ethyl alcohol 64-17-5	-0.32
Dimethylformamide 68-12-2	-1.028

Other adverse effects No information available.**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.**Contaminated packaging** Do not reuse empty containers.

Chemical Name	California Hazardous Waste Status
Ethyl alcohol 64-17-5	Toxic Ignitable

14. TRANSPORT INFORMATION**DOT****UN/ID No**

3316

Technical Name

Chemical Kit

Transport hazard class(es)

9

Special Provisions

Note: Per 49 CFR - When Shipping 30 mL or less per inner packaging and the gross weight does not exceed 64 lbs. use the 173.4 small quantity exception

IATA

UN/ID No	3316
Technical Name	Chemical Kit
Transport hazard class(es)	9

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

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 %
Dimethylformamide - 68-12-2	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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

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	Extremely Hazardous Substances RQs
Dimethylformamide 68-12-2	100 lb	-

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Ethyl alcohol - 64-17-5	Carcinogen Developmental
Dimethylformamide - 68-12-2	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethyl alcohol 64-17-5	X	X	X
Dimethylformamide 68-12-2	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards -	Flammability -	Instability -	Physical and chemical properties -
HMIS	Health hazards -	Flammability -	Physical hazards -	Personal protection X

Issuing Date 21-Jul-2020

Revision Date 21-Jul-2020

Revision Note No information available.

Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Meridian Bioscience, Inc. shall not be held liable for any damages resulting from handling or from contact with the above product.

End of Safety Data Sheet