

Safety Data Sheet

Revision Date: 6/25/2019

Section 1: Chemical Identification

1.1 Chemical Identification

Product Name: TrueBlack™ Lipofuscin Autofluorescence Quencher
Alternative Name:
Catalog Number: TB-250

1.2 Relevant Uses and Uses Advised Against

Recommended use: This product is not for use in humans. It is for research purposes only.

1.3 Supplier Contact Information

Distributed by: Gold Biotechnology, Inc.
 1328 Ashby Rd.
 St. Louis, MO 63132
Phone: (314) 890-8778
Fax: (314) 890-0503
Email: contactgoldbio86@goldbio.com

1.4 Emergency Contact Information

Emergency Phone: (800)248-7609 (Monday-Friday, 9:00 a.m. – 5:00 p.m. CST)

Section 2: Hazardous Information

2.1 GHS Classification

Flammable Liquid (Category 3)
 Acute Toxicity, Vapors (Category 4)
 Acute Toxicity, Dermal (Category 4)
 Eye Irritation (Category 2A)
 Reproductive Toxicity (Category 1B)

2.2 GHS Label Elements, Including Precautionary statements



DANGER!

2.3 Hazard Statements

H226: Flammable liquid and vapour
H312: Harmful in contact with skin
H319: Causes serious eye irritation
H332: Harmful if inhaled

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H360: May damage fertility or the unborn child

2.4 Precautionary Statements

- P201: Obtain special instructions before use
- P202: Do not handle until all safety precautions have been read and understood
- P264: Wash skin thoroughly after handling
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P281: Use personal protective equipment as required
- P302+352: IF ON SKIN: Wash with soap and water
- P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
- P308+313: IF exposed or concerned: Get medical advice/attention
- P312: Call a POISON CENTER or doctor/physician if you feel unwell
- P337+313: If eye irritation persists get medical advice/attention
- P363: Wash contaminated clothing before reuse
- P405: Store locked up
- P501: Dispose of contents/container to an approved waste disposal plant
- P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
- P233: Keep container tightly closed
- P241: Use explosion-proof electrical/ventilating/light/.../equipment
- P242: Use only non-sparking tools
- P243: Take precautionary measures against static discharge
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray
- P370+378: In case of fire: Use dry sand, dry chemical, or alcohol resistant foam for extinction

2.8 HMIS Classification

Health Hazard:	2
Chronic Health Hazard:	*
Flammability:	2
Physical Hazards:	0

2.9 NFPA Rating

Health Hazard:	2
Fire:	2
Reactivity Hazard:	0

Section 3: Composition/Information on Ingredients

3.1 Composition

Identity: TrueBlack dye
IUPAC:
Synonyms:
CAS Number: none [<2%]
Molecular Formula:
Molecular Weight:

Identity: Dimethyl formamide
IUPAC:

Synonyms: N,N-Dimethylformamide, DMF
CAS Number: 68-12-2 [>98%]
Molecular Formula: HCON(CH₃)₂
Molecular Weight: 73.09 g/mol

Section 4: First Aid Measures

4.1 Detailed First Aid Measures

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin: Immediately wash skin copiously with soap and water. Take victim immediately to hospital. Consult a physician.

Eye: Immediately rinse out with water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.

Ingestion: Wash out mouth with water. Drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person.

Notes to Physician: Treat symptomatically and supportively.

4.2 Most Important Symptoms And Effects, Either Acute Or Delayed

The most important known symptoms and effects are described in the labeling (see section 2). And /or in section 11.

4.3 Indication of immediate medical attention and special treatment needed

Not available

Section 5: Fire Fighting Measures

5.1 Conditions of flammability:

Flammable or combustible.

5.2 Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.3 Specific hazards arising from the chemical

During a fire, highly toxic gases may be generated by thermal decomposition or combustion – Unknown.

5.4 Specific protective actions for fire-fighters:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

6.2 Environmental precautions:

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up:

Soak up with absorbent material, discard.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

Always wear personal protective equipment (PPE, see section 8).

7.2 Conditions for safe storage, including and incompatibilities:

Keep container tightly closed.

Store at room temperature.

Section 8: Exposure Controls / Personal Protection

8.1 Control Parameters:

8.2: Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Personal Protective Equipment (PPE):

Eye/Face Protection: Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique - without touching outer surface of glove - to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Other Protective Clothing or Equipment: Wear appropriate protective clothing to prevent exposure.

Control Parameters - Workplace

<u>Component:</u>	<u>CAS-No:</u>	<u>Value:</u>
dimethyl formamide	68-12-2	TWA

Control

<u>Parameters:</u>	<u>Basis:</u>
10 ppm	USA. ACGIH Threshold Limit Values (TLV)

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Liver damage. Substances for which there is a Biological Exposure Index or Indices (see BEI® section). Not classifiable as a human carcinogen. Danger of cutaneous absorption.

TWA 10 ppm / 30 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z - 1 Limits for Air Contaminants

Skin designation: The value in mg/m3 is approximate.

TWA 10 ppm / 30 mg/m3 USA. NIOSH Recommended Exposure Limits

Potential for dermal absorption

PEL 10 ppm / 30 mg/m3 California permissible exposure limits for chemical contaminants (Title 8, Article 107)

Skin

Control Parameters - Biological

<u>Component:</u>	<u>CAS-No:</u>	<u>Value:</u>	<u>Control Parameters:</u>	<u>Basis:</u>
dimethyl formamide	68-12-2	N-Methylformamide	15 mg/L	in urine

End of shift (As soon as possible after exposure ceases)

N-Acetyl-S-(N-methylcarbamoyl) cysteine
40 mg/L in urine
Prior to last shift of workweek

Section 9: Physical and Chemical Properties

9.1 General chemical and physical properties

Appearance:	Dark blue/black solution
Odor:	Not Available
Odor Threshold:	Not Available
pH:	Not Available
Melting Point:	Not Available
Freezing Point:	Not Available

Boiling Point/Range:	Not Available
Flash Point:	Not Available
Evaporation Rate:	Not Available
Lower Explosion Limit:	Not Available
Upper Explosion Limit:	Not Available
Vapor Pressure:	Not Available
Vapor Density:	Not Available
Relative Density:	Not Available
Solubility:	Soluble in ethanol
Partition Coefficient n-octanol/water:	Not Available
Auto-Ignition Temperature:	Not Available
Decomposition Temperature:	Not Available
Viscosity:	Not Available

Section 10: Stability and Reactivity Data

10.1 Reactivity:

Not available

10.2 Chemical Stability:

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions:

Not available.

10.4 Conditions to avoid:

Incompatible materials.

10.5 Incompatible materials:

Strong oxidizing agents.

10.6 Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - Unknown.

Section 11: Toxicological Information

11.1 Toxicological effects

Acute toxicity:

Dimethyl formamide Oral: Rat LD₅₀ = 2,800 mg/kg

Dimethyl formamide Inhalation: Rat LC₅₀ = 4 h - 9-15 mg/L

Dimethyl formamide Skin: Rabbit LD₅₀ = 1,500 mg/kg

Skin corrosion/irritation:

Skin - Human
Result: Mild skin irritation - 24 h

Eyes - Rabbit
Result: Moderate eye irritation

Respiratory or skin sensitization:

Not available.

Germ cell mutagenicity:

Mouse
lymphocyte
Mutation in mammalian somatic cells

Carcinogenicity:

- IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.
- NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
- OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity:

May cause congenital malformation in the fetus.

STOT-single exposure:

Not available.

STOT-repeated exposure:

Not available.

Aspiration hazard:

Not available.

Likely routes of exposure:

Respiratory organs, mouth, skin, and eyes.

Symptoms of exposure:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Warning: intolerance for alcohol can occur up to 4 days after dimethylformamide exposure. N,N-dimethylformamide is considered to be a potent liver toxin., Vomiting, Diarrhoea, Abdominal pain, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

12.1 Toxicity:

Toxicity to fish

LC50 - Oncorhynchus mykiss (rainbow trout) - 9,000-13,000 mg/l - 96 h

LC50 - Lepomis macrochirus (Bluegill) - 6,700-7,500 mg/l - 96 h

LC50 - Pimephales promelas (fathead minnow) - 10,400-10,800 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 9,600-13,100 mg/l - 48 h

Toxicity to algae

LC50 - Desmodesmus subspicatus (green algae) - > 500 mg/l - 96 h

12.2 Persistence and degradability:

Inherent biodegradability.

12.3 Bioaccumulative potential:

Does not bioaccumulate.

12.4 Mobility in soil:

Not available.

12.5 Other adverse effects:

None.

Section 13 Disposal Considerations

Dispose of product in accordance with local rules and regulations.

Section 14: Transport Information

14.1 US Department of Transportation (DOT)

UN Number: 2265
Proper shipping name: N,N-Dimethylformamide
Class: 3
Packing Group: III
Marine Pollutant:

14.2 International Maritime Dangerous Goods (IMDG):

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Proper shipping name: N,N-Dimethylformamide
Class: 3
Packing Group: III
Marine Pollutant:

14.2 International Air Transportation Association (IATA)

UN Number: 2265
Proper shipping name: N,N-Dimethylformamide
Class: 3
Packing Group: III
Marine Pollutant:

Section 15: Regulatory Information

SARA 302 Components:

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

No SARA Hazards.

Massachusetts Right To Know Components:

Dimethyl formamide

CAS - No.

68-12-2 [>98%]

Pennsylvania Right To Know Components:

Dimethyl formamide

CAS - No.

68-12-2 [>98%]

New Jersey Right To Know Components:

Dimethyl formamide

CAS - No.

68-12-2 [>98%]

California Prop. 65 Components:

This product does not contain any chemical known to the State of California to cause cancer, birth, or any other reproductive defects.

Section 16: Other Information

While Gold Biotechnology, Inc. believes the information contained herein to be true and accurate, it has relied on information provided by others. Gold Biotechnology, INC. makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or with respect to the results to be obtained from the use of the product. Gold Biotechnology, Inc. disclaims all liability with respect to the use of this product, including without limitation, liability for injury to the user or third-party persons.

Preparation Information

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