

SAFETY DATA SHEET

Date Revised: March 30, 2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: TrueBlack Lipofuscin Autofluorescence Quencher, 20X in DMF
Catalog Number: 23007
Unit Size: 1 mL
Manufacturer/Supplier: Biotium, Inc.
46117 Landing Parkway, Fremont, CA 94538, USA
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Web: <http://www.biotium.com>

2. HAZARDS IDENTIFICATION

Classification according to Regulation (EC) No 1272/2008[CLP]
Dimethyl formamide: Repr. Cat. 2; R61 Xn; R20/21 Xi; R36

Classification according to Directive 1999/45/EC
Dimethyl formamide: Repr. Cat. 2; R61 Xn; R20/21 Xi; R36

Labelling according to Regulation (EC) No 1272/2008[CLP]
Dimethyl formamide: T R: 61-20/21-36 S: 53-45

Hazard pictogram**Signal word** Danger

Hazard statements H312 Harmful in contact with skin; H319 causes serious eye irritation; H332 harmful if inhaled; H360D may damage the unborn child

Precautionary statements P280 Wear protective gloves/protective clothing/eye protection/face protection, P302+P352 IF ON SKIN: wash with plenty of soap and water, P312 Call a POISON CENTER or doctor/physician if you feel unwell, P363 Wash contaminated clothing before reuse, P501 Dispose of contents/container to hazardous chemical waste, P264 Wash hands thoroughly after handling, P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing, P337+P313 IF eye irritation persists: Get medical advice/attention, P201 Obtain special instructions before use, P202 Do not handle until all safety precautions have been read and understood, P281 Use personal protective equipment as required, P308+P313 IF exposed or concerned: Get medical advice/attention, P405 Store locked up.

HMIS Classification

Health hazard: 2
Flammability: 2
Physical hazards: 0

NFPA Rating

Health hazard: 2
Fire: 2
Reactivity Hazard: 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS No.	EC No.	Index No.	Weight %	Classification according to 67/548/EEC	Classification according to regulation (EC)No1278/2008
Dimethyl formamide	68-12-2	200-679-5	616-001-00-X	98%	Acute Tox. 4 Eye Irrit. 2 Repr. 1B	Repr. Cat. 2; R61 Xn; R20/21 Xi; R36
TrueBlack dye	--	--	--	2%	--	--

4. FIRST-AID MEASURES**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES**Suitable extinguishing media**

Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.

Special protective equipment for firefighters

Wear self contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Avoid breathing vapors, mist or gas. Remove all sources of ignition.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Avoid inhalation of vapor or mist.

Avoid direct contact with substance.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.
 Store at room temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Substance: Dimethyl formamide

CAS no. 68-12-2

country	Austria	Belgium	Denmark	European Union	France	Germany
Limit value, 8hours	5 ppm 15 mg/m ³	10 ppm 30 mg/m ³	10 ppm 30 mg/m ³	5 ppm 15 mg/m ³	5 ppm 15 mg/m ³	5 ppm 15 mg/m ³
Limit value, short term	10 ppm 30 mg/m ³	--	20 ppm 60 mg/m ³	10 ppm 30 mg/m ³	10 ppm 30 mg/m ³	10 ppm 30 mg/m ³

country	Hungary	Italy	Poland	Spain	Sweden	Netherlands	Switzerland
Limit value, 8hours	30 mg/m ³	5 ppm 15 mg/m ³	15 mg/m ³	5 ppm 15 mg/m ³	10 ppm 30 mg/m ³	15 mg/m ³	5 ppm 15 mg/m ³
Limit value, short term	120 mg/m ³	10 ppm 30 mg/m ³	30 mg/m ³	10 ppm 30 mg/m ³	15 ppm 45 mg/m ³	30 mg/m ³	10 ppm 30 mg/m ³

country	United Kingdom	USA-NIOSH	USA-OSHA	Australia	Canada	Japan	South Korea
Limit value, 8hours	10 ppm 30 mg/m ³	10 ppm 30 mg/m ³	10 ppm 30 mg/m ³	10 ppm 30 mg/m ³	10 ppm 30 mg/m ³	10 ppm	10 ppm 30 mg/m ³
Limit value, short term	20 ppm 61 mg/m ³	--	--	--	--	--	--

Personal protective equipment

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) 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.

Respiratory protection

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye 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).

Hygiene measures

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	TrueBlack Lipofuscin Autofluorescence Quencher, 20X in DMF
Appearance	Dark blue/black solution
Odor	No data available
Odor threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Boiling point	No data available

Flash point	No data available
Evaporate rate	No data available
Flammability	No data available
Explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	Soluble in ethanol
Partition coefficient:n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

No data available

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Dimethyl formamide

Oral LD50 Rat-2,800 mg/kg

Inhalation LC50 Rat-4h-9-15 mg/l

Dermal LD50 Rabbit-1,500 mg/kg

Other information on acute toxicity no data available

Skin corrosion/irritation

Skin-Human

Result: Mild skin irritation – 24 h

Serious eye damage/eye irritation

Eyes – Rabbit

Result: Moderate eye irritation

Respiratory or skin sensitization no data available

Germ cell mutagenicity

Mouse

Lymphocyte

Mutation in mammalian somatic cells

Carcinogenicity

IARC: 3- Group 3: Not classifiable as to its carcinogenicity to humans (N,N-Dimthylformamide)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated 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

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Additional Information

RTECS: LQ2100000

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.

1. ECOLOGICAL INFORMATION**Dimethylformamide****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
LC50 - Oncorhynchus mykiss (rainbow trout) - 9,800 mg/l - 96 h
LC50 - Lepomis macrochirus (Bluegill) - 6,300 mg/l - 96 h
LC50 - Pimephales promelas (fathead minnow) - 10,600 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

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

EC50 - Daphnia magna (Water flea) - 15,700 mg/l - 48 h

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

Persistence and degradability Result: > 90 % - Readily biodegradable

Biodegradation no information available

Mobility in soil no information available

Results of PBT and vPvB assessment no information available

Other adverse effects no information available

Additional information no information available

2. DISPOSAL CONSIDERATIONS

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

3. TRANSPORT INFORMATION

IATA, IMDG, DOT (US) not dangerous good during transportation
UN number 2265
UN proper shipping name N,N-Dimethylformamide
Transport hazard class 3
Packing group III
Environmental hazards none
Special precaution for user none

4. REGULATION INFORMATION

US Federal Regulations

Us Toxic Substances Control Act (TSCA): Not listed

SARA 302: No chemicals were found .

SARA 313: Dimethylformamide CAS No 68-12-2.

SARA 311/312 Hazards : No chemicals were found.

12. OTHER INFORMATION

Classification according to Regulation (EC) Nr. 1272/2008

Prepared by: Regulatory Department
Biotium Inc.

Version no. 3

Reason for revision Application of CLP labeling and corresponding requirements

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. Biotium shall not be held liable for any damage resulting from handling or contact with the above product.