

**SAFETY DATA SHEET**

Date: July 26, 2022

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product Name	Catalog Number	Unit Size
EverBrite™ Hardset Mounting Medium	23003	10 mL
EverBrite™ Hardset Mounting Medium with DAPI	23004	10 mL
EverBrite™ Hardset Mounting Medium with NucSpot® 640	23016	10mL
EverBrite™ Hardset Mounting Medium with NucSpot® 640	23016-T	2mL

**Manufacturer/Supplier:** Biotium, Inc.  
46117 Landing Parkway, Fremont, CA 94538, USA  
Phone: 1-510-265-1027, Fax: 1-510-265-1352  
Web: <http://www.biotium.com>

Use as laboratory reagent. For research use only. Not for food, drug, household, or cosmetic use.

**2. HAZARDS IDENTIFICATION****Dimethylformamide, DMF****GHS Classification**

**Signal word** Danger  
**Health hazards** Acute Tox. 4, Eye Irrit. 2, Repr. 1B  
**Physical hazards** None  
**Hazard statements** H312: Harmful in contact with skin,  
H319: Causes serious eye irritation  
H332: Harmful if inhaled  
H360D: May damage the unborn child.

**GHS hazard pictogram**

**WHMIS classification** Dimethylformamide: Class 3 Flammable Liquids, Acute Toxicity 4, Carcinogenicity 1B, Serious eye damage 2A, Specific target organ toxicity Cat 1, Rep tox 1B

**NFPA Rating**

Health hazard: 2  
Fire: 2  
Reactivity Hazard: 0

**Classification according to Regulation (EC) No 1272/2008[CLP]**

Acute Tox. 4, Eye Irrit. 2, Repr. 1B

**Labeling according to Regulation (EC) No 1272/2008[CLP]****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**

P203 - Obtain, read and follow all safety instructions before use.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264+P265 - Wash hands thoroughly after handling. Do not touch eyes.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 - IF IN EYES: Remove contact lenses, if present and easy to do. Rinse cautiously with water for several minutes.  
P317 - IF SWALLOWED: Get emergency medical help.  
P337+P317 - If eye irritation persists: Get emergency medical help.  
P362+P364 - IF ON CLOTHING: Take off contaminated clothing.  
P405 - Store locked up.  
P501 - Dispose of contents/container to approved waste disposal facility.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Name	CAS No.	EC No.	Weight %	Classification
Dimethylformamide, DMF	68-12-2	200-679-5	0.4%	<b>GHS</b> Acute Tox. 4, Eye Irrit. 2, Repr. 1B <b>(EC) No 1272/2008[CLP]</b> Acute Tox. 4, Eye Irrit. 2, Repr. 1B <b>WHMIS</b> Flam Liq. 3, Acute Tox. 4, Eye Irrit. 2A, Carc. 1B, Rep Tox. 1B, Specific target organ tox. 1B
Glycerol	56-81-5	200-289-5	20%	-

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**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.

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**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 4°C

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Substance: Dimethylformamide

CAS no. 68-12-2

Country	Australia	Austria	Belgium	Canada Ontario	Canada Quebec	Denmark	European Union	Finland
Limit value, 8hours	30 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>	15 mg/m <sup>3</sup> (1)	10 ppm (1)	10 ppm (1)	15 mg/m <sup>3</sup> (1)	15 mg/m <sup>3</sup> (1)	15 mg/m <sup>3</sup>
Limit value, short term		30 mg/m <sup>3</sup>	30 mg/m <sup>3</sup> (1)(2)			30 mg/m <sup>3</sup> (1)(2)	30 mg/m <sup>3</sup> (1)(2)	30 mg/m <sup>3</sup> (2)

Country	France	Germany (AGS)	Germany (DFG)	Hungary	Ireland	Italy	Japan (MHLW)	Japan (JSOH)
Limit value, 8hours	15 mg/m <sup>3</sup>	15 mg/m <sup>3</sup> (1)	15 mg/m <sup>3</sup> (1)	15 mg/m <sup>3</sup> (1)	15 mg/m <sup>3</sup>	15 mg/m <sup>3</sup> (1)	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Limit value, short term	30 mg/m <sup>3</sup> (1)	30 mg/m <sup>3</sup> (1)(2)	30 mg/m <sup>3</sup> (1)(2)	30 mg/m <sup>3</sup> (1)(2)	30 mg/m <sup>3</sup> (3)	30 mg/m <sup>3</sup> (1)(2)		30 mg/m <sup>3</sup>

Country	Latvia	New Zealand	Norway	People's Republic of China	Poland	Romania	Singapore	South Africa
Limit value, 8hours	15 mg/m <sup>3</sup>	5 ppm	15 mg/m <sup>3</sup> (1)	20 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>	30 mg/m <sup>3</sup>	20 ppm (1)
Limit value, short term	30 mg/m <sup>3</sup> (2)		30 mg/m <sup>3</sup> (1)(2)		30 mg/m <sup>3</sup>	30 mg/m <sup>3</sup> (2)		

Country	South Africa (mining)	South Korea	Spain	Sweden	Switzerland	Netherlands	Turkey
Limit value, 8hours	30 mg/m <sup>3</sup> (1)	10 ppm (1)	15 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>	15 mg/m <sup>3</sup> (1)	15 mg/m <sup>3</sup>
Limit value, short term	60 mg/m <sup>3</sup> (1)(2)		30 mg/m <sup>3</sup>	30 mg/m <sup>3</sup> (2)	30 mg/m <sup>3</sup>	30 mg/m <sup>3</sup> (1)(2)	30 mg/m <sup>3</sup> (1)

Country	United Kingdom	USA-NIOSH	USA-OSHA
Limit value, 8hours	15 mg/m <sup>3</sup>	30 mg/m <sup>3</sup> (1)	30 mg/m <sup>3</sup> (1)
Limit value, short term	30 mg/m <sup>3</sup> (2)		

## Remarks

(1) Skin  
 (2) 15 minutes average value  
 European Union -Binding Occupational Exposure Limit Value for all exposure values listed (BOELV)  
 (3) 15 minutes reference period  
 Belgium Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.

Substance: Glycerol (mist)  
 CAS no. 56-81-5

Country	Australia	Belgium	Canada Ontario	Canada Quebec	Finland	France	Germany (AGS)	Germany (DFG)
Limit value, 8hours	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	20 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	200 mg/m <sup>3</sup> (1)	200 mg/m <sup>3</sup> (1)
Limit value, short term							400 mg/m <sup>3</sup> (1)(2)	400 mg/m <sup>3</sup> (1)(2)

Country	Ireland	New Zealand	Poland	Singapore	South Africa mining	South Korea	Spain
Limit value, 8hours	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> (1)	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	10 ppm	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Limit value, short term							

Country	Switzerland	USA -OSHA	United Kingdom
Limit value, 8hours	50 mg/m <sup>3</sup>	15 mg/m <sup>3</sup> (1) 5 mg/m <sup>3</sup> (2)	10 mg/m <sup>3</sup>
Limit value, short term	100 mg/m <sup>3</sup>		

## Remarks

Australia (1) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.  
 Germany (AGS) (1) Inhalable fraction (2) 15 minutes average value  
 Germany (DFG) (1) Inhalable fraction (2) 15 minutes average value  
 New Zealand (1) The value for inhalable dust containing no asbestos and less than 1% free silica.  
 USA - OSHA (1) Inhalable fraction (2) Respirable fraction

## 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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	EverBrite™ Hardset Mounting Medium
Appearance	Liquid
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	No data available
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

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## 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

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## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Oral LD50

Mouse- 2,900 mg/kg (DMF)

#### Inhalation LC50

Mouse –9,400 mg/m<sup>3</sup>/2hr (DMF)

#### Dermal LD50

Rabbit – 4,720 mg/kg (DMF)

#### Other information on acute toxicity

No data available

**Skin corrosion/irritation** – Rabbit Result: Mild skin irritation - 24 h (Glycerol); Human Dermatotoxin (DMF)

#### Serious eye damage/eye irritation

Eyes – Rabbit Result: Mild eye irritation - 24 h (Glycerol)

<b>Respiratory or skin sensitization</b>	Rabbit and Human - eye irritation – 24 h (DMF) No sensitization observed in guinea pigs (DMF)
<b>Germ cell mutagenicity</b>	Cytogenetic analysis in humans, 12,300 ug/m <sup>3</sup> /1y (DMF); Salmonella typhimurium assay (Amestest): <u>4250 ug/kg</u>
<b>Carcinogenicity</b>	IARC: Group 2A: Probably carcinogenic to humans (DMF) ACGIH: Carcinogen - Confirmed Animal (DMF) 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: TLV-A3 Confirmed animal carcinogen with unknown relevance to humans (DMF)
<b>Reproductive toxicity</b>	Reproductive toxicity, may damage the unborn child. In mice, fertility & fecundity were reduced and offspring malformations were observed after exposure to 4,000 & 7,000 ppm using the RACB Protocol.
<b>Specific target organ toxicity - single exposure (Globally Harmonized System)</b>	No data available
<b>Specific target organ toxicity - repeated exposure (Globally Harmonized System)</b>	No data available
<b>Aspiration hazard</b>	Aspiration hazard: Abdominal pain. Jaundice (DMF)
<b>Potential health effects</b>	
<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation (DMF).
<b>Ingestion</b>	May be harmful if swallowed (DMF).
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation (DMF).
<b>Eyes</b>	May cause eye irritation (DMF).
<b>Additional Information</b>	RTECS: LQ2100000 (DMF); MA8050000 (Glycerol)

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## 12. ECOLOGICAL INFORMATION

### Toxicity

DMF: Ecotoxicity in water (LC50): 7100 ppm 96 hours (Trout)  
Glycerol :Ecotoxicity in water (LC50): 58.5 ppm 96 hours (Trout)

**Persistence and degradability** DMF: biodegradation: 4.4% (14d)

**Bioaccumulative potential** No information available

**Mobility in soil** DMF expected to have very high mobility based upon an estimated Koc of 1.

**Results of PBT and vPvB assessment** No information available

**Other adverse effects** No information available

**Additional information** No information available

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## 13. DISPOSAL CONSIDERATIONS

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

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## 14. TRANSPORT INFORMATION

**IATA, IMDG, DOT (US), TDG** Not dangerous goods during transportation

**UN number** 2265  
**UN proper shipping name** N,N-Dimethyl formamide  
**Transport hazard class** 3  
**Packing group** III  
**Environmental hazards** None  
**Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code** None  
**Special precaution for user** None

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## 15. REGULATION INFORMATION

### US Federal Regulations

US Toxic Substances Control Act (TSCA): Dimethylformamide (DMF) 68-12-2, Glycerol 56-81-5

SARA 302: Dimethylformamide, CAS 68-12-2

SARA 313: Dimethylformamide, CAS 68-12-2

SARA 311/312 Hazards: Dimethylformamide, CAS 68-12-2

**WHMIS Hazard Class:** Dimethylformamide: Class 3 Flammable Liquids, Acute Toxicity 4, Carcinogenicity 1B, Serious eye damage 2A, Specific target organ toxicity Cat 1

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## 16. OTHER INFORMATION

Classification according to Regulation (EC) Nr. 1272/2008  
Refer to section 2 and section 3

Prepared by: Regulatory Department  
Biotium Inc.

Version no. 7

Revision date (Initials) 7/26/22 JK

Reason for revision Remove EverBrite wetset and TrueBlack products. Add DMF and associated classifications.

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