

## SAFETY DATA SHEET

Date: September 10, 2018

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Mini Pap Pen /Super HT Pap Pen

**Catalog Number:** 22005 / 22006

**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

#### GHS Classification

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

Flam. Liq. 2  
Skin Irrit. 2  
Eye Irrit. 2  
STOT SE 3  
Repr. 1B  
Asp. Tox. 1  
Muta. 1B  
Carc. 1B

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

#### Hazard pictogram



**Signal word** Danger

#### Hazard statements

H225 Highly flammable liquid and vapour  
H304 May be fatal if swallowed and enters airways  
H315 Causes skin irritation  
H319 Causes serious eye irritation  
H335 May cause respiratory irritation  
H340 May cause genetic defects  
H350 May cause cancer

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.  
P260: Do not breathe dust/fumes/gas/mist/vapours/spray.  
P262: Do not get in eyes, on skin, or on clothing.  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/... P302+352: IF ON SKIN:  
Wash with plenty of water/...  
P304+312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

## WHMIS Classification

Flammable liquids - Category 2  
Skin corrosion/irritation - Category 2  
Carcinogenicity - Category 2  
Reproductive toxicity - Category 1B

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS No.	EC No.	Index No.	Weight %
1-Bromopropane	106-94-5	203-445-0	602-019-00-5	40-60%
Ligroine	8032-32-4	231-791-2	649-263-00-9	5-10%
Butadiene rubber	106-99-0	232-453-7	601-013-00-X	25-35%

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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.

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### 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.

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### 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

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Substance 1- Bromopropane  
 CAS no. 203-445-0  
 Control parameter

country	Austria	Belgium	Denmark	European Union	France	Germany
Limit value,8hours	-	10ppm/ 51mg/m <sup>3</sup>	-	-	-	-
Limit value, short term	-	-	-	-	-	-

country	Hungary	Italy	Poland	Spain	Sweden	Netherlands	United Kingdom
Limit value,8hours	-	-	42 mg/m <sup>3</sup>	10ppm	-	-	-
Limit value, short term	-	-	-	-	-	-	-

country	United Kingdom	USA-NIOSH	USA-OSHA	Australia	Canada	Japan	South Korea
Limit value,8hours	-	-	-	-	10ppm	-	25ppm/125 mg/m <sup>3</sup>
Limit value, short term	-	-	-	-	-	-	-

Substance Ligroine  
 CAS no. 8032-32-4  
 Control parameter

country	Austria	Belgium	Denmark	European Union	France	Germany
Limit value,8hours	-	300ppm/ 1390mg/m <sup>3</sup>	-	-	-	-
Limit value, short term	-	-	-	-	-	-

country	Hungary	Italy	Poland	Spain	Sweden	Netherlands	United Kingdom
Limit value,8hours	-	-	-	-	-	-	-
Limit value, short term	-	-	-	-	-	-	-

country	United Kingdom	USA-NIOSH	USA-OSHA	Australia	Canada	Japan	South Korea
Limit value,8hours	-	350 mg/m <sup>3</sup>	-	-	10ppm	-	300ppm/1350 mg/m <sup>3</sup>
Limit value, short term	-	1800 mg/m <sup>3</sup>	-	-	-	-	-

Substance Butadiene rubber  
CAS no. 106-99-0  
Control parameter

country	Austria	Belgium	Denmark	European Union	France	Germany
Limit value, 8hours	5ppm/ 11mg/m <sup>3</sup>	2ppm/ 4,5mg/m <sup>3</sup>	10ppm/ 22mg/m <sup>3</sup>	-	-	2ppm/ 5mg/m <sup>3</sup>
Limit value, short term	20ppm/ 44mg/m <sup>3</sup>	-	20ppm/ 44mg/m <sup>3</sup>	-	-	-

country	Hungary	Italy	Poland	Spain	Sweden	Netherlands	United Kingdom
Limit value, 8hours	-	-	4,4mg/m <sup>3</sup>	2ppm/ 4,5mg/m <sup>3</sup>	0,5ppm/ 1mg/m <sup>3</sup>	46,2mg/m <sup>3</sup>	-
Limit value, short term	-	-	-	-	5ppm/ 10mg/m <sup>3</sup>	-	-

country	United Kingdom	USA-NIOSH	USA-OSHA	Australia	Canada	Japan	South Korea
Limit value, 8hours	10ppm/ 22mg/m <sup>3</sup>	0,19 LOQ	1ppm	10ppm/ 22mg/m <sup>3</sup>	2ppm	-	2ppm/ 4,4mg/m <sup>3</sup>
Limit value, short term	-	-	15ppm	-	-	-	10ppm/ 22mg/m <sup>3</sup>

## 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	Super Pap Pen
Appearance	liquid
Odor	No data available
Odor threshold	No data available
pH	7 at 20 °C (68 °F)
Melting point/freezing point	-110 °C
Boiling point	71 °C
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	Water insoluble
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 -Bromopentane

LD50 Oral - Rat - male - 4,260 mg/kg

LC50 Inhalation - Rat - male and female - 4 h - 14374 ppm (OECD Test Guideline 403)

LD50 Dermal - Rabbit - male and female - 135,000 mg/kg (OECD Test Guideline 402)

LD50 Intraperitoneal - Rat - 2,950 mg/kg

### Skin corrosion/irritation

No data available

### Serious eye damage/eye irritation

Eyes - Rabbit Result: Irritating to eyes.

### Respiratory or skin sensitization

Maximisation Test - Guinea pig Result: Does not cause skin sensitisation.

### Germ cell mutagenicity

Ames test S. typhimurium Result: negative

### Carcinogenicity

Carcinogenicity - Rat - male and female - inhalation (vapour) Skin and Appendages: Other:

Tumors. Lungs, Thorax, or Respiration:Tumors.

### Reproductive toxicity

Reproductive toxicity - Rat - male and female - inhalation (vapour) Paternal Effects:

Spermatogenesis (including genetic material, sperm morphology,motility, and count)

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

No data available

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

inhalation (vapour) - May cause damage to organs through prolonged or repeated exposure. -

Liver, Central nervous system Inhalation - Liver Aldrich - B78106 Page 7 of 9 Inhalation - Central

### 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**

Repeated dose toxicity Rat - male - Inhalation - NOAEL : 0.63 mg/l - OECD Test Guideline 413 Rat - male and female - Inhalation - NOAEL : &lt; 2 mg/l

RTECS: TX4110000

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**12. ECOLOGICAL INFORMATION****Toxicity (Bromopentane)**

Toxicity to fish semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 24.3 mg/l - 96 h Toxicity to

daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 99.3 mg/l - 48 h

Toxicity to algae static test NOEC - Pseudokirchneriella subcapitata - 12.4 mg/l - 96 h

Toxicity to bacteria Respiration inhibition EC50 - Sludge Treatment - 270 mg/l - 5 min

**Persistence and degradability**

aerobic - Exposure time 28 d Result: 19.2 % - Not 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

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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** NA**UN proper shipping name** Combustible liquid, n.o.s. (1-Bromopropane)**Transport hazard class** NA**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): Not listed

SARA 302: No chemicals were found.

SARA 313: No chemicals were found.

SARA 311/312 Hazards: No chemicals were found.

**WHMIS Hazard Class** None

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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. 2  
Revision date (Initials) CY  
Reason for revision- Add toxicity of Bromopentane and include WHMIS classification

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.