

SAFETY DATA SHEET

Cat# 2494-1, -5, Bakuchiol

SDS DATE: Feb 7, 2014

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Bakuchiol
PRODUCT CODES: Cat# 2494-1, -5
MANUFACTURER: BioVision, Inc.
ADDRESS: 155 S. Milpitas Boulevard, Milpitas, CA 95035
EMERGENCY PHONE: 858-373-8066
CHEMTREC PHONE:
OTHER CALLS: 408-493-1800
FAX PHONE: 408-493-1801

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Description | Volume | Safety Information |
|-----------|-------------|------------------------------|--------------------|
| Bakuchiol | Oil | 2494-1: 1 mg 2494-5: 5 mg | See below |

SECTION 3: HAZARDS IDENTIFICATION

| Product Name/Chemical Name | CAS Number | EC-No. | Molecular Weight | Chemical Formula |
|----------------------------|------------|--------|------------------|-----------------------------------|
| Bakuchiol | 10309-37-2 | -- | 256.38 | C ₁₈ H ₂₄ O |

Bakuchiol:

Emergency Overview

OSHA Hazards: No known OSHA hazards

GHS Classification: Acute toxicity, Oral (Category 5)

GHS Label elements, including precautionary statements

Pictogram: none

Signal word: Warning

Hazard statement(s): H303 May be harmful if swallowed.

Precautionary statement(s): none

HMIS Classification

Health hazard: 1

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

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

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

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

SECTION 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: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5: FIRE-FIGHTING MEASURES

Condition of flammability: Not flammable or combustible.

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire fighters: Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products: Hazardous decomposition products formed under fire conditions— see section 10.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Avoid breathing dust.

Environmental precautions: Do not let product enter drains.

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Methods for cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20 °C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| Property | Bakuchiol |
|----------------------------|-------------------------|
| Appearance: | Yellow to brownish oil |
| pH: | No data available |
| Water Solubility: | No data available |
| Other Solubility: | DMSO or EtOH |
| Boiling Point (°C): | 145-147 °C (293-297 °F) |
| Melting Point (°C): | No data available |
| Flash Point (°C): | No data available |
| Ignition Temperature (°C): | No data available |
| Density: | 0.96 g/cm ³ |

SECTION 10: STABILITY AND REACTIVITY

| Property | Bakuchiol |
|-----------------------------------|---|
| Chemical stability | Stable under recommended storage conditions |
| Conditions to avoid: | No data available |
| Materials to avoid: | Reducing agents, oxidizing agents |
| Hazardous decomposition products: | Carbon oxides |

SECTION 11: TOXICOLOGICAL INFORMATION

Bakuchiol:

Acute toxicity: LD50 Oral – rat – 2,560 mg/kg

LD50 Intraperitoneal – mouse – 94 mg/kg

LD50 Intravenous – mouse – 31 mg/kg

Skin corrosion/irritation: Skin – human – no skin irritation → Patch Test 24 hrs. On Humans: no detectable irritation

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: Does not cause skin sensitization. Patch test on human volunteers did not demonstrate sensitization properties.

Germ cell mutagenicity: Genotoxicity in vitro – Human lymphocytes – negative

Genotoxicity in vitro – S. typhimurium - negative

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Carcinogenicity:

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed
- 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: no data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): no data available

Specific target organ toxicity – repeated exposure (GHS): no data available

Potential Health Effects

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

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

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

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

Synergistic effects: no data available

Additional information: RTECS: SL3785000

SECTION 12: ECOLOGICAL INFORMATION

Bakuchiol:

Persistence and degradability: no data available

Toxicity: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

Bakuchiol:

DOT (US): Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

SECTION 15: REGULATORY INFORMATION

OSHA Hazards: No known OSHA hazards

SARA 302 Components: SARA 302: No chemical 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 II, Section 313.

SARA 311/312 Hazards: No SARA Hazards

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components: Bakuchiol, CAS-No. 10309-37-2

New Jersey Right To Know Components: Bakuchiol, CAS-No. 10309-37-2

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

EU regulations

| Component | Risk Phrases | Safety Phrases |
|-----------|--------------|----------------|
| Bakuchiol | -- | -- |

SECTION 16: OTHER INFORMATION

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. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. BioVision, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.