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|-----------------|---|---------------------------|-----------------|--------------------------------|
| Applied BioCode | TITLE: SDS BioCode® <i>Rhizopus oryzae</i> BMB-Probe | | | |
| | DOCUMENT NO: SPC-0786 | DOCUMENT CATEGORY: SDS | REVISION: 01 | EFFECTIVE DATE: 11-Feb-2022 |

1 Product and Company Identification

Product identifier

Trade name: **BioCode® *Rhizopus oryzae* BMB-Probe**

Product Code: 44-B0334

Application of the substance / the mixture: Analyte Specific Reagent

Details of the supplier of the safety data sheet Manufacturer/Supplier:

Applied Biocode, Inc.

12130 Mora Dr., Unit 2, Santa Fe Springs, CA 90670

1-833-246-2633 or (562)-777-9800

Emergency telephone number:

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident

Call 1-833-262-8324

2. Hazard(s) Identification

Classification of the substance or mixture

GHS Label elements

Hazard pictograms: Not applicable

Signal word: Not applicable

Hazard statements: Not applicable

Classification system:

This mixture has not been tested to determine the overall health hazard; therefore in accordance with 29CFR1910.1200, the data reported below pertains to the hazardous ingredients of this mixture

NFPA ratings (scale 0 - 4)

| CAS # | Chemical Name | Health Hazard | Fire | Reactivity Hazard |
|--------------------------------|---|---------------|------|-------------------|
| 7647-14-5 | Sodium chloride | 1 | 0 | 0 |
| 7447-40-7 | Potassium chloride | 0 | 0 | 0 |
| 7558-79-4 | Disodium hydrogen phosphate | 0 | 0 | 0 |
| 7778-77-0 | Potassium Dihydrogen phosphate | 0 | 0 | 0 |
| 9005-64-5 | Tween-20 | 0 | 0 | 0 |
| 2682-20-4 Active ingredient | ProClin-950 Active ingredient 2-Methyl-4-isothiazolin-3-one | 3 | 0 | 0 |
| 7732-18-5 | Deionized water | 0 | 0 | 0 |
| N/A | Carboxyl BMB | N/A | N/A | N/A |

HMIS-ratings (scale 0 - 4)

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| CAS # | Chemical Name | Health Hazard | Flammability | Physical Hazard |
|--------------------------------|---|---------------|--------------|-----------------|
| 7647-14-5 | Sodium chloride | 1 | 0 | 0 |
| 7447-40-7 | Potassium chloride | 1 | 0 | 0 |
| 7558-79-4 | Disodium hydrogen phosphate | 0 | 0 | 0 |
| 7778-77-0 | Potassium Dihydrogen phosphate | 0 | 0 | 0 |
| 9005-64-5 | Tween-20 | 0 | 0 | 0 |
| 2682-20-4 Active ingredient | ProClin-950 Active ingredient 2-Methyl-4-isothiazolin-3-one | 3 | 0 | 0 |
| 7732-18-5 | Deionized water | 0 | 0 | 0 |
| N/A | Carboxyl BMB | N/A | N/A | N/A |

OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable

Target Organ(s): Not applicable or unknown

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description:

The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as an Applied BioCode trade secret.

| CAS | Description | Content |
|-------------|---|--------------------------|
| NA | Carboxyl BMB | 50k-500k in 1.5mL Buffer |
| NA | Deoxyribonucleic acid | NA |
| 7647-14-5 | Sodium chloride | 0-1 % |
| 7447-40-7 | Potassium chloride | 0-1 % |
| 7558-79-4 | Disodium hydrogen phosphate | 0-1 % |
| 7778-77-0 | Potassium dihydrogen phosphate | 0-1 % |
| 9005-64-5 | Tween-20 | 0-1 % |
| 2682-20-4 | ProClin-950 (2-Methyl-4-isothiazolin-3-one) | 0-1 % |
| 7732-18-5 | Deionized water | >98 % |
| 127087-87-0 | Tergitol NP-10 | N/A |
| 39423-51-3 | Jeffamine | N/A |

Additional information: For the wording of the listed risk phrases refer to section 15

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4. First aid measures

General information: Consult a physician. Show this safety data sheet to the doctor in attendance. Remove person/s from exposure or dangerous area.

After inhalation: If the patient feels unwell or is concerned, obtain medical advice.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If the patient feels unwell or is concerned, obtain medical advice.

Information for doctor:

Most important symptoms and effects, both acute and delayed: None

Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. Fire-fighting measures

Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture: None known

Advice for firefighters: No special advice

Protective equipment: No special measures required.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear appropriate protective clothing and chemically compatible gloves. Place spillage in appropriate container for waste disposal. Wash contaminated clothing before reuse.

Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

7. Handling and storage

Handling:

Precautions for safe handling: No special measures required.

Information about protection against explosions and fires: The product is not flammable.

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

Specific end use(s): No further relevant information available.

8. Exposure controls/personal protection

Exposure controls: Use in a laboratory hood or other ventilated device. OSHA, ACGIH, or NIOSH has not established

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occupational exposure limits for this substance. Use prudent laboratory practices for handling chemical substances of unknown toxicity.

Eye protection: Employees should wear splash proof or dust resistant safety goggles to prevent eye contact with this substance..

Clothing: Employees should wear appropriate protective clothing (laboratory coat with long sleeves) and equipment to prevent skin contact with this material.

Gloves: Employee must wear appropriate protective gloves to prevent contact with this material.

9. Physical and chemical properties

| | |
|--|--|
| Form: | Liquid |
| Color: | Colorless |
| Odor: | Not determined |
| Odor threshold: | Not determined |
| pH value at 30°C: | 8.5 |
| Melting point/range: | Not determined |
| Boiling point/range: | 100°C (212°F) |
| Flash point (solid or gas): | Not applicable |
| Flammability: | Not applicable |
| Ignition temperature: | Not determined |
| Decomposition temperature: | Not determined |
| Auto igniting: | Not applicable |
| Danger of explosion: | Product does not present an explosion hazard |
| Vapor pressure: | Not determined |
| Density: | Not determined |
| Relative density: | Not determined |
| Vapor density: | Not determined |
| Evaporation rate: | Not determined |
| Solubility in /Miscibility with water: | Fully miscible |
| Partition coefficient: | Not determined |
| Viscosity: | Not determined |
| Dynamic: | Not determined |
| Kinematic | Not determined |

10 Stability and reactivity

Reactivity: No further relevant information available.

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

11. Toxicological information

LD/LC50 values that are relevant for classification:

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| CAS | Description | Acute Oral Toxicity |
|------------|---|--|
| 28906-96-9 | Formaldehyde, polymer (SU-8) | rat: LD50>2000 mg/kg |
| 7447-40-7 | Potassium chloride | mouse: LD50=4gm/kg rat: LD50=3000 mg/kg |
| 7647-14-5 | Sodium chloride | mouse: LD50=1500 mg/kg rat: LD50=2600 mg/kg |
| 7558-79-4 | Disodium hydrogen phosphate | mouse: LD50=N/A rat: LD50= 17 gm/kg |
| 7778-77-0 | Potassium dihydrogen phosphate | NA |
| 9005-64-5 | Tween-20 | mouse: LD50=>33 gm/kg rat: LD50= 40,554 mg/kg |
| 2682-20-4 | ProClin-950 (2-Methyl-4-isothiazolin-3-one) | rat: LD50= 3600 mg/kg |

| CAS | Description | Acute Inhalation Toxicity |
|------------|---|--|
| 28906-96-9 | Formaldehyde, polymer (SU-8) | rat: LD50>5 mg/L |
| 7447-40-7 | Potassium chloride | mouse: LD50=4gm/kg rat: LD50=3000 mg/kg |
| 7647-14-5 | Sodium chloride | rat: LC50=>42 gm/m3/1H |
| 7558-79-4 | Disodium hydrogen phosphate | NA |
| 7778-77-0 | Potassium dihydrogen phosphate | NA |
| 9005-64-5 | Tween-20 | NA |
| 2682-20-4 | ProClin-950 (2-Methyl-4-isothiazolin-3-one) | NA |

| CAS | Description | Acute Dermal Toxicity |
|------------|---|---------------------------|
| 28906-96-9 | Formaldehyde, polymer (SU-8) | rabbit: LD50>2000 mg/kg |
| 7447-40-7 | Potassium chloride | NA |
| 7647-14-5 | Sodium chloride | rabbit: LD50 = > 10 gm/kg |
| 7558-79-4 | Disodium hydrogen phosphate | NA |
| 7778-77-0 | Potassium dihydrogen phosphate | NA |
| 9005-64-5 | Tween-20 | NA |
| 2682-20-4 | ProClin-950 (2-Methyl-4-isothiazolin-3-one) | NA |

Primary irritant effect:

on the skin: May cause irritation

on the eye: May cause irritation

Sensitization: May cause irritation

Additional toxicological information:


The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories:

IARC (International Agency for Research on Cancer): None of the ingredients are listed.

NTP (National Toxicology Program): None of the ingredients are listed.

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OSHA-Ca (Occupational Safety & Health Administration): None of the ingredients are listed.

12 Ecological information

Toxicity:

Aquatic toxicity: Due to the small size of 2 mL vial and the low concentration of hazardous ingredient in this product, risks are estimated to be minor.

Persistence and degradability: Not available

Behavior in environmental systems:

Bioaccumulative potential: Not known

Mobility in soil: Not available.

Ecotoxicological effects: Not available

Additional ecological information:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment PBT: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods recommendation:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

| | |
|---|----------------------------------|
| UN-Number | Not hazardous for transportation |
| DOT, ADR, ADN, IMDG, IATA | Void |
| UN proper shipping name | None |
| DOT, ADR, ADN, IMDG, IATA | Void |
| Transport hazard class(es) | None |
| DOT, ADR, ADN, IMDG, IATA Class | Void |
| Packing group | None |
| DOT, ADR, IMDG, IATA | Void |
| Environmental hazards: | |
| Marine pollutant: | No |
| Special precautions for user | Not applicable. |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| UN "Model Regulation": | Void |

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

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Section 355 (extremely hazardous substances): None of the ingredients are listed.
 Section 313 (Specific toxic chemical listings): None of the ingredients are listed
 TSCA (Toxic Substances Control Act): All ingredients are listed.

Proposition 65

Chemicals known to cause cancer: None of the ingredients are listed.
 Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.
 Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed.
 Chemicals known to cause developmental toxicity: None of the ingredients are listed.

Carcinogen categories

EPA (Environmental Protection Agency): None of the ingredients are listed.
 TLV (Threshold Limit Value established by ACGIH): None of the ingredients are listed
 NIOSH-Ca (National Institute for Occupational Safety and Health): None of the ingredients are listed.

GHS label elements : Void
 Signal word: Void
 Hazard statements: Void

National regulations:

Water hazard class: None of the ingredients are listed.
 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- ICAO: International Civil Aviation Organization
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative

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NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Current