## 1 Product and Company Identification

Product identifier
Trade name: **BioCode® BMB Diluent**
Product Code: 44-B0324
Application of the substance / the mixture: Laboratory chemical

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)

| 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

## 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: $CO_2$, 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

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:

| 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<br>rat: LD50=3000 mg/kg |
| 7647-14-5 | Sodium chloride | mouse: LD50=1500 mg/kg<br>rat: LD50=2600 mg/kg |
| 7558-79-4 | Disodium hydrogen phosphate | mouse: LD50=N/A<br>rat: LD50= 17 gm/kg |
| 7778-77-0 | Potassium dihydrogen phosphate | NA |
| 9005-64-5 | Tween-20 | mouse: LD50=>33 gm/kg<br>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<br>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 DermalToxicity |
|---|---|---|
| 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.

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.
Ecotoxical 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

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.

Cancerogenity 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: Internation 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

NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit