	<b>TITLE:</b> Safety Data Sheet: BioCode SA-PE Mix Pack			
	<b>DOCUMENT NO:</b> SPC-0472	<b>DOCUMENT CATEGORY:</b> SDS	<b>REVISION:</b> 02	<b>EFFECTIVE DATE:</b> 30-Jul-2021

## 1 Product and Company Identification

### Product identifier

Trade name: **BioCode SA-PE Mix Pack**

Product Code: 63-S0001

Application of the substance / the mixture: Laboratory chemicals

### 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 x882, Fax 1-562-777-9805

### 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	2-Methyl-4-isothiazolin-3-one (ProClin-950)	3	0	0
7732-18-5	Deionized water	0	0	0
9048-46-8	Bovine Serum Albumin	0	0	0
N/A	Streptavidin-R-phycoerythrin Conjugate (SAPE)	2	0	0

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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	2-Methyl-4-isothiazolin-3-one (ProClin-950)	3	0	0
7732-18-5	Deionized water	0	0	0
9048-46-8	Bovine Serum Albumin	0	0	0
N/A	Streptavidin-R-phycoerythrin Conjugate (SAPE)	2	0	0

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 a Applied BioCode trade secret.

CAS No.	Chemical Name	EC-No. EINECS	Concentration
7647-14-5	Sodium chloride	231-598-3	~0.8 %
7447-40-7	Potassium chloride	231-211-8	~0.02 %
7558-79-4	Disodium hydrogen phosphate	231-448-7	~0.144 %
7778-77-0	Potassium dihydrogen phosphate	231-449-2	~0.024 %
9005-64-5	Tween-20	EC-607	~0.05 %
2682-20-4	2-Methyl-4-isothiazolin-3-one (ProClin-950)	220-239-6	~0.05 %
7732-18-5	Deionized water	231-791-2	97-98 %
9048-46-8	Bovine Serum Albumin	232-936-2	~1.5 %
N/A	Streptavidin-R-phycoerythrin Conjugate (SAPE)	N/A	~0.005 %

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: CO<sub>2</sub>, 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.

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## 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:	Pink
Odor:	Not determined
Odor threshold:	Not determined
pH value at 30°C:	Not determined
Melting point/range:	Not determined
Boiling point/range:	Not determined
Flash point (solid or gas):	Not applicable
Flamability:	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.

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Hazardous decomposition products: No dangerous decomposition products known.

## 11. Toxicological information

LD/LC50 values that are relevant for classification:

CAS	Description	Acute Oral Toxicity
7647-14-5	Sodium chloride	mouse: LD50=4gm/kg rat: LD50=3000 mg/kg
7447-40-7	Potassium chloride	mouse: LD50=1500 mg/kg rat: LD50=2600 mg/kg
7558-79-4	Disodium hydrogen phosphate	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	2-Methyl-4-isothiazolin-3-one (ProClin-950)	rat: LD50= 3600 mg/kg
7732-18-5	Deionized water	NA
9048-46-8	Bovine Serum Albumin	NA
N/A	Streptavidin-R-phycoerythrin Conjugate (SAPE)	NA

CAS	Description	Acute Inhalation Toxicity
7647-14-5	Sodium chloride	rat: LC50=>42 gm/m3/1H
7447-40-7	Potassium chloride	NA
7558-79-4	Disodium hydrogen phosphate	NA
7778-77-0	Potassium dihydrogen phosphate	NA
9005-64-5	Tween-20	NA
2682-20-4	2-Methyl-4-isothiazolin-3-one (ProClin-950)	NA
7732-18-5	Deionized water	NA
9048-46-8	Bovine Serum Albumin	
N/A	Streptavidin-R-phycoerythrin Conjugate (SAPE)	

CAS	Description	Acute Dermal Toxicity
7647-14-5	Sodium chloride	rabbit: LD50 = > 10 gm/kg
7447-40-7	Potassium chloride	NA
7558-79-4	Disodium hydrogen phosphate	NA
7778-77-0	Potassium dihydrogen phosphate	NA
9005-64-5	Tween-20	NA
2682-20-4	2-Methyl-4-isothiazolin-3-one (ProClin-950)	NA
7732-18-5	Deionized water	NA
9048-46-8	Bovine Serum Albumin	NA
N/A	Streptavidin-R-phycoerythrin Conjugate (SAPE)	NA

Primary irritant effect:

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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: Not harmful to the aquatic environment  
Persistence and degradability: Not available  
Behavior in environmental systems:  
Bioaccumulative potential: Not available  
Mobility in soil: Not available.  
Ecotoxic effects: Remark: 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 packagings:

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

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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.

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

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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

Current