

Applied BioCode	TITLE: MSDS: BioCode 2500 Optical and Verification Kit			
	DOCUMENT NO: SPC-0050	DOCUMENT CATEGORY:	REVISION: 01	EFFECTIVE DATE: 9/7/2018

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**Department:** Manufacturing  
**Document Category:**  
**Document Status:** Current  
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## Revision History

Revision	Details	Effective Date
01	Cross Reference Document MSDS-64-C0003 Ed. 01	9/7/2018

## Reference

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No records to display.

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Current

**1. PRODUCT AND COMPANY IDENTIFICACION**

Product Name:  
Product Number:

**BC2500 Optical Calibration / Verification Kit  
64-C0003**

Company:

Applied BioCode Inc.  
10020 Pioneer Blvd. Ste.102  
Santa Fe Springs CA 90670 USA

Telephone:  
Fax:

562-801-0050  
562-801-0060

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

CAS No.	Chemical Name	EC-No. EINECS	Concentration %
7732-18-5	DI Water	231-791-2	~ 98.5
127087-87-0	Tergitol NP-10	500-315-8	<0.1
7647-14-5	Sodium chloride	231-598-3	< 0.8
6132-04-3	Sodium citrate tribasic dihydrate	200-675-3	<0.4
137-16-6	N-Lauroylsarcosine sodium salt	205-281-5	< 0.1
2682-20-4	ProClin 950	220-239-6	~0.1
N/A	Antifoam B emulsion	N/A	0.01
81-88-9	Rhodamine B	201-383-9	0-2600 X 10 <sup>-9</sup>

**3. HAZARDS IDENTIFICATION**

**HMIS Classification**

CAS #	7647-14-5	6132-04-3	2682-20-4	127087-87-0	137-16-6
Health hazard	1	0	3	2	4
Flammability	0	0	0	1	1
Physical hazards	0	0	0	0	0

CAS #	Antifoam B emulsion	7732-18-5	81-88-9
Health hazard	0	0	2
Flammability	0	0	0
Physical hazards	0	0	0

**NFPA Rating**

CAS #	7647-14-5	6132-04-3	2682-20-4	127087-87-0	137-16-6
Health hazard	1	0	3	0	4
Fire	0	0	0	1	1
Reactivity hazard	0	0	0	0	0

CAS #	Antifoam B emulsion	7732-18-5	81-88-9
Health hazard	0	0	2
Fire	0	0	0
Reactivity hazard	0	0	0

The concentration of harmful component in detection buffer with antifoam was so low (< 0.1 %)

Potential Health Effects

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**Inhalation**  
**Skin**  
**Eyes**  
**Ingestion**

May be harmful if inhaled.  
May be harmful if absorbed through skin.  
May causes eye irritation.  
May be harmful if swallowed.

#### 4. FIRST AID MEASURES

##### General Advice

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

##### If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

##### In case of eye contact

Flush eyes with water as precaution. If irritation develops, get medical aid.

##### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires apply water from as far as possible.

##### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for firefighting if necessary.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

##### 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, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### 7. HANDLING AND STORAGE

##### Precautions for safe handling

Wear appropriate protective gloves and eye protection to prevent contact with skin and eyes. Avoid inhalation of vapor or mist.

Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

##### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

##### Sodium chloride

Contains no substances with occupational exposure limit values.

##### Sodium citrate tribasic dihydrate

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Contains no substances with occupational exposure limit values.

**N-Lauroylsarcosine sodium salt**

Contains no substances with occupational exposure limit values.

Tergitol NP-10

No known OSHA hazards.

ProClin 950

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, cough, wheezing, laryngitis, shortness of breath, headacche, nausea, vomiting.

**Antifoam B emulsion (10 % aqueous emulsion of Antifoam A concentrate)**

Contains no substances with occupational exposure limit values.

Handle in accordance with good industrial hygiene and safety practice.

Rhodamine B

Handle in accordance with good industrial hygiene and safety practice.

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Personal protective equipment**

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN14387) respirator cartridge as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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**

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

**Skin and body protection**

Impervious clothing, Flame retardant antistatic protective clothing, 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 workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**

Form

liquid Color

colorless

**Safety data**

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Melting point/freezing point	not available
Boiling point	not available
Flash point	not available
Ignition temperature	not available
Lower explosion limit	not available
Upper explosion limit	not available
Vapor pressure	not available
Density	not available
Water solubility	not available

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

Not known under normal storage condition.

### Conditions to avoid

Incompatible materials, excess heat

### Materials to avoid

Avoid working in dirty environment which may cause solution to become turbid.

### Hazardous decomposition products

Other decomposition products - no data available.

Hazardous decomposition products formed under fire conditions. – None known.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity:

#### Oral LD50:

#### **CAS # 7647-14-5**

Oral, mouse: LD50=4gm/kg

Oral, rat: LD50=3000 mg/kg

#### **CAS # 6132-04-3**

IPR-Rat : LD50 = 1548 mg/kg

#### CAS # 127087-87-0

LD50Oral-rat-16,000 mg/kg

#### CAS # 2682-20-4

No data available

#### **CAS # 137-16-6**

No data available

Antifoam B emulsion

No data available

#### CAS # 81-88-9

Rhodamine B

LD50 Oral-Mouse-887 mg/Kg

LDLO Oral-Rat -500 mg/Kg

### Inhalation LC50:

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**CAS # 7647-14-5**

Inhalation, rat: LC50=>42 gm/m3/1H

**CAS # 6132-04-3**

**LC50: Not tested**

May be harmful if inhaled.

CAS # 127087-87-0

No data available

CAS # 2682-20-4

No data available

**CAS # 137-16-6**

**LC50 Inhalation-rat-4h- 0.05-0.5 mg/L**

**Antifoam B emulsion**

**No data available**

**CAS # 81-88-9**

**Rhodamine B**

**No data available**

**Skin corrosion/irritation:**

**CAS # 7647-14-5**

**Skin, rabbit: LD50 = > 10 gm/kg**

**CAS # 6132-04-3**

No irritant effect.

CAS # 127087-87-0

LD50 Dermal-rabbit-4,490 mg/kg

CAS # 2682-20-4

No data available

**CAS # 137-16-6**

No data available

Antifoam B emulsion

No data available

**CAS # 81-88-9**

**Rhodamine B**

No skin irritation (Rabbit)

**Serious eye damage/eye irritation:**

**CAS # 7647-14-5**

Eyes-rabbit-Mild eye irritation-Draize Test

**CAS # 6132-04-3**

No relevant irritating effects.

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CAS # 127087-87-0  
Severe corneal injury (0.5 mL; 5 % dilution)

CAS # 2682-20-4  
No data available

**CAS # 137-16-6**  
May cause eye irritation

Antifoam B emulsion  
No data available

**CAS # 81-88-9**  
**Rhodamine B**  
**Severe eye irritation (Rabbit)**

**Respiratory or skin sensitization:**

**CAS # 7647-14-5**  
May cause respiratory tract irritation

**CAS # 6132-04-3**  
Inhalation of large amounts of dust may cause irritation to the respiratory tract.

CAS # 127087-87-0  
No irritation

CAS # 2682-20-4  
May cause allergic skin reaction

**CAS # 137-16-6**  
No data available

Antifoam B emulsion  
No data available

**CAS # 81-88-9**  
**Rhodamine B**  
No data available

**Germ cell mutagenicity:**

**CAS # 7647-14-5**  
No data available

**CAS # 6132-04-3**  
No data available

CAS # 127087-87-0  
No data available

CAS # 2682-20-4  
No data available

**CAS # 137-16-6**  
No data available

Antifoam B emulsion  
No data available

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**CAS # 81-88-9**  
**Rhodamine B**

**Ames test**  
**S. typhimurium-Histidine reversion (Ames)**

**Hamster Ovary DNA damage**

**Carcinogenicity:**

**CAS # 7647-14-5:** Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65

**CAS # 6132-04-3:** Not listed as a carcinogen by IARC, NTP or OSHA.

CAS # 127087-87-0

IARC: No component of this product is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product is 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 is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

CAS # 2682-20-4

IARC: No component of this product is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product is 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 is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**CAS # 137-16-6:** No component of this product is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC, ACGIH, NTP, or by OSHA.

**CAS # 7732-18-5:** Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65

**Antifoam B emulsion**

IARC: No component of this product is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product is 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 is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

ACGIH No component of this product is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH



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**CAS # 81-88-9**  
**Rhodamine B**

**Carcinogenicity**

**Carcinogenicity-Rat-Subcutaneous**

**Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.**

**Blood: Lymphomas including Hodgkin's disease.**

**Tumorigenic: Tumors at site or application.**

**This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.**

IARC: 3-Group 3: Not classifiable as to its carcinogenicity to humans (9-(2-Carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride)

NTP: No component of this product is 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 is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

ACGIH No component of this product is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH

**Reproductive toxicity:**

**CAS # 7647-14-5**  
No data available

**CAS # 6132-04-3**  
No data available

127087-87-0

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

2682-20-4

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

**CAS # 137-16-6**  
No data available

Antifoam B emulsion  
No data available

**CAS # 81-88-9**  
**Rhodamine B**  
No data available

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

**CAS # 7647-14-5**  
No data available

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**CAS # 6132-04-3**  
No data available

CAS # 127087-87-0  
No data available

CAS # 2682-20-4  
No data available

**CAS # 137-16-6**  
No data available

Antifoam B emulsion  
No data available

**CAS # 81-88-9**  
**Rhodamine B**  
No data available

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

**CAS # 7647-14-5**  
No data available

**CAS # 6132-04-3**  
No data available

CAS # 127087-87-0  
No data available

CAS # 2682-20-4  
No data available

**CAS # 137-16-6**  
No data available

Antifoam B emulsion  
No data available

**Aspiration hazard:**  
No data available

**CAS # 81-88-9**  
**Rhodamine B**  
No data available

**Signs and Symptoms of Exposure:**

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

**12. ECOLOGICAL INFORMATION**

**CAS # 7647-14-5**  
**Toxicity to fish**

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LC50-Lepomis macrochirus (Bluegill)-1,294.6 mg/l-96 h  
 NOEC-Pimephales promelas (fathead minnow)-4,000 mg/l-7 d

**Toxicity to daphnia and other aquatic invertebrates**

NOEC-Daphnia- 1,500 mg/l – 7 d  
 LC50- Daphnia magna (Water flea)- 1,661 mg/l – 48 h

**CAS # 6132-04-3**

No further relevant information available.

**CAS # 127087-87-0**

No data available

**CAS # 2682-20-4**

No data available

**CAS # 137-16-6**

No data available

**Antifoam B emulsion**

No data available

**CAS # 81-88-9**

**Rhodamine B**

**Toxicity to fish**

LC 50- Cyprinodon variegates (sheepshead minnow)- 83.9 mg/L-96 h

LC50-Lepomis macrochirus (Bluegill)-379 mg/L-96 h

LC50-Oncorhynchus mykiss (rainbow trout)-217 mg/L-96 h

Toxicity to daphnia and other aquatic invertebrates

EC50-Daphnia magna (water flea)-22.9 mg/L-48 h

**Persistence and degradability**

No data available (not including Rhodamine B)

**CAS # 81-88-9**

**Rhodamine B**

Biodegradability-0 %- not rapidly biodegradable(OECD Test Guideline 302)

**Bioaccumulative potential**

No data available (not including Rhodamine B)

**CAS # 81-88-9**

**Rhodamine B**

**Bioaccumulation**

Cyprinus carpio (Carp)-24d-0.1 mg/L

Bioconcentration factor (BCF): < 0.2

**Mobility in soil**

No data available

**PBT and vPvB assessment**

No data available

**Other adverse effects**

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No data available

### 13. DISPOSAL CONSIDERATION

#### Product

Contact a licensed professional waste disposal service to dispose of this material. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

#### Contaminated packaging

Dispose of as unused product.

### 14. TRANSPORT INFORMATION DOT (US)

UN number: NA

Proper shipping name: Not regulated as a hazardous material.

Reportable Quantity (RQ): NA

Marine pollutant: NA

Hazard Class: Non-Hazardous

#### IMDG

UN number: NOT LISTED, REF FS0002

Packing group: NA

EMS-No: NA

Marine pollutant: NA

#### IATA

UN number: NOT LISTED, REF FS0002

### 15. REGULATORY INFORMATION

OSHA Hazards – None of the chemicals in this product are considered highly hazardous.

### 16. OTHER INFORMATION

The above information is believed to be correct but does not claim to be all complete and shall be used only as a guide. The information in this document is based on our present knowledge and is applicable to the product with regard to appropriate safety precautions. Applied BioCode Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.