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DATE PREPARED: July 25, 2014 PRODUCT NAME: **Blockmaster CE510**

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Blockmaster CE510

General Use: Coating Material (R&D Use Only)
Product Description: Aqueous Solution of Oxyethylene Resin

MANUFACTURER: EMERGENCY TELEPHONE NUMBERS:

JSR Life Sciences Corporation CHEMTREC: 1-800-424-9300 25 Miyukigaoka, Tsukuba, Ibaraki (in USA) 24Hrs Every day 305-0841 Japan Telephone: +81-29-856-1726

9:00-17:45 Jpn M-F

Facsimile: +81-29-879-9120

24Hrs Every day

DISTRIBUTOR

JSR Micro, Inc.

1280 North Mathilda Ave., Sunnyvale, CA94089 Telephone: 408-543-8800

2. HAZARDS IDENTIFICATION

GHS Classification of the mixtures and any national or regional information

Hazards	Hazard elements		Classification	
Physical Hazards	Explosives		Not an explosive	
	Flammable gases		Not classified	
	Flammable aerosols		Not classified	
	Oxidizing gasses		Not classified	
	Gases under pressure		Not classified	
	Flammable liquids		Not classified	
	Flammable solids		Not classified	
	Self-reactive substances and mixtures		Not a self-reactive mixture	
	Pyrophoric liquids		Not classified	
/sica	Pyrophoric solids		Not classified	
Phy	Self-heating substances and mixtures		Not classified	
	Substances and mixtures which, in contact with water, emit flammable		Not classified	
	gases			
	Oxidizing liquids		Not classified	
	Oxidizing solids		Not classified	
	Organic peroxides		Not a organic peroxide	
	Corrosive to metals		Not classified	
Health Hazards	Acute toxicity	Oral	Not classified	
		Dermal	Classification not possible	
		Inhalation (Gasses)	Classification not possible	
		Inhalation (Vapors)	Classification not possible	
		Inhalation (Dusts and	Classification not possible	
		Mists)		
	Skin corrosion/irritation		Not classified	

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Hazards	Hazard elements	Classification
	Serious eye damage/eye irritation	Not classified
	Respiratory or skin sensitization	Classification not possible /
	Respiratory of skin sensitization	Classification not possible
	Germ cell mutagenicity	Not classified
	Carcinogenicity	Classification not possible
	Reproductive toxicity	Classification not possible
	Specific target organ systemic toxicity-Single exposure	Not classified
	Specific target organ systemic toxicity-Repeated exposure	Classification not possible
	Aspiration hazard	Classification not possible
Hazardous	Acute aquatic toxicity	Classification not possible
to the aquatic environment	Chronic aquatic toxicity	Classification not possible

GHS label elements

Hazard symbols: none

Signal word: none

Hazard statement:

EMERGENCY OVERVIEW:

Colorless transparent to pale yellow aqueous liquid.

POTENTIAL HEALTH EFFECTS

INHALATION:

May cause irritation to nose and throat.

EYE CONTACT:

May cause irritation.

SKIN CONTACT:

May cause mild irritation.

INGESTION:

May be harmful if swallowed.

CARCINOGENICITY:

The particles in this liquid product are not considered a respirable hazard in the products natural state. The product must be properly handled. Do not allow the product to dry on a surface that can later be disturbed. Disturbance of the dried residue can generate potentially hazardous airborne particles. The solvents in this product are not listed to cause cancer.

SIGNS AND SYMPTOMS:

Eye and skin irritation.

NFPA RATINGS (SCALE 0 – 4): Health=1; Flammability=0; Reactivity=0

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National or regional information:

Japan Fire Defense Law, Not Dangerous goods.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component%CAS No.Oxyethylene resin1-10ProprietaryWater90-997732-18-5

4. FIRST AID MEASURES

INHALATION:

Remove exposed person to fresh air; perform artificial respiration if necessary.

Call a physician.

EYE CONTACT:

Immediately flush eyes with plenty of water at least 15 min. Call a physician.

SKIN CONTACT:

Immediately wash skin with soap and plenty of water.

INGESTION:

Contact a poison center and have MSDS information available.

NOTE TO PHYSICIAN:

Treatment may vary with condition of victim and specifics of incident.

5. FIRE-FIGHTING MEASURES

GENERAL HAZARD:

May cause irritation.

EXTINGUISHING MEDIA:

Not applicable.

SPECIAL FIRE FIGHTING PROCEDURES:

Water should be used to keep fire exposed containers cool and to dispense vapors. Firefighters should wear self-contained breathing apparatus.

FIRE AND EXPLOSION HAZARDS:

Not applicable.

Flammable Limits: Not applicable. Flammable Limits: Not flammable. Autoignition Temperature: Not applicable.

6. ACCIDENTAL RELEASE MEASURES

LARGE SPILL/SMALL SPILL:

Dike or absorb with inert absorbent material before allowing to dry and transfer to D.O.T. container for disposal. Strictly, avoid draining into any Public water system. Dispose of absorbent and other waste in an appropriate chemical waste container. Wear proper personal protective equipment. Wash thoroughly after handling.

7. HANDLING AND STORAGE

Store in original container in a dry area. Avoid heat, sunlight, and ignition sources. Open only under well ventilated conditions. Loosen closure cautiously before opening. When using this substance: (a) avoid breathing the substance; (b) avoid ingestion; (c) use respiratory protection when in dust or mist form. Wear chemical goggles, resistant gloves and protective clothing to prevent contact. Wash thoroughly after handling.

PRECAUTIONS:

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Handle with care. When using this substance: (a) avoid touching the substance; (b) avoid ingestion. Wear chemical goggles, resistant gloves and protective clothing to prevent contact. Wash thoroughly after handling.

RECOMENDED STORAGE TEMPERATURE: 35.6 to 46.4°F (2 to 8°C)

STORAGE PRESSURE: Atmospheric

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

PERSONAL PROTECTION

RESPIRATORY PROTECTION:

Under conditions of frequent use or heavy exposure, Respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.

Any chemical cartridge respirator with organic vapor cartridge(s).

Any chemical cartridge respirator with a full facepiece and organic

Vapor cartridge(s).

Any air-purifying respirator with a full facepiece and an organic

Vapor canister.

For Unknown Concentrations or Immediately Dangerous to Life or Health.

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

SKIN PROTECTION:

Wear impermeable gloves and clothing during activities where there is potential for direct skin contact with chemical.

EXPOSURE GUIDELINE (S):

OSHA HAZARDS (29 CFR 1910.1200) Exposure Limits 8 hrs. TWA (ppm)

COMPONENT	OSHA PEL	ACGIH TLV
Oxyethylene resin	not established	not established
Water	not established	not established

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific Gravity: 1.0-1.1 Solubility in water: Soluble pH 9-11

Boiling Point: ca. 100°C (Water)

10. STABILITY AND REACTIVITY

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID)

Strong acid, strong basic substance and electrolyte solution.

HAZARDOUS DECOMPOSITION PRODUCTS:

This material is stable under recommended storage and handling conditions.

HAZARDOUS POLYMERIZATION:

May not occur.

11. TOXICOLOGICAL INFORMATION

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Oxyethylene resin

No information available

Water:

ACUTE TOXICITY

Oral LD50 rat 90,000 mg/kg

12. ECOLOGICAL INFORMATION

No information available

13. DISPOSAL CONSIDERATION

The user of this product must properly characterize the waste generated from the use of this product in accordance with all applicable federal, state and/or local laws and regulations in order to determine the proper disposal of the waste in accordance with all applicable federal, state and/or local laws and regulations.

14. TRANSPORT INFORMATION

TRANSPORTATION AND HAZARDOUS MATERIALS DESCRIPTION:

Package and transport in accordance with Department of Transportation (DOT) and other regulatory agency requirements.

PROPER SHIPPING NAME: Aqueous solution

IATA IDENTIFICATION NUMBER: Not regulated as a hazardous material. DOT IDENTIFICATION NUMBER: Not regulated as a hazardous material.

15. REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200: Ensure that the hazards associated with this product are transmitted to employees by means of a hazard communications program, in accordance with federal and state Occupational Safety and Health Administration (OSHA) regulations.

CERCLA/SUPERFUND HAZARD CATEGORY: Some of the ingredients of this product are listed in 40 CFR 302.4.

SARA 313 INFORMATION: At the time of this document's preparation, none of the ingredients of this product were listed in 40 CFR 372. The list should be periodically checked for applicable updates.

TOXIC SUBSTANCES CONTROL ACT (TSCA): All of the compounds in this product are on the TSCA Inventory and/or are subject to a Low Volume Exemption. In accordance with federal regulations, this material shall be used only as a research reagent. In particular, this material shall not be distributed to any person, other than for disposal. All users must utilize the worker protection measures and environmental release controls specified in this Material Safety Data Sheet and in EPA and OSHA regulations. Acknowledgment of receipt of this Material Safety Data Sheet shall be considered acknowledgment that the user will comply with these requirements.

CALIFORNIA PROPOSITION 65: At the time of this document's preparation, none of the ingredients of this product were included on the California Proposition 65 list of chemicals known to cause cancer or reproductive toxicity. The list should periodically be checked for applicable updates.

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16. OTHER INFORMATION

REVISION SUMMARY

December 25, 2009 Original MSDS established.

June 5, 2012 Revision 1 established.

July 25, 2014 Revision 2 eatablished.

To the best of our knowledge, the information contained herein is accurate. However, neither JSR Life Sciences Corporation nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards, which exist.