Material Safety Data Sheet

MSDS: CL000I Revision# 4 Revision Date: 8/06/2013

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Poly-octadecylbutanedioate (CuLator® PowerPak, CuLator® Ultra 4.0, Metal Xtract™)

CAS NUMBER: 110707-31-8

PRODUCT NUMBER(S): CL-1000 CL-2000 CL-3000

COMPANY IDENTIFICATION	**EMERGENCY TELEPHONE NUMBERS**
PERIODIC PRODUCTS 1885 W. STATE ROAD 84, STE 104 FT. LAUDERDALE, FLORIDA 33315	**HEALTH** (24 hr): (300) 231-0623 or (510) 231-0623 (Int'l.) **TRANSPORTATION** (24 hr): CHEMTREC (800) 424-9300 or (703) 527-3887. **EMERGENCY INFORMATION CENTERS** are located in the U.S.A. Int'l collect calls accepted.
PRODUCT INFORMATION:	MSDS Requests: (954)764-7654 Technical Information: (954) 764-7654

PRODUCT USE:

MEDICAL APPLICATION CAUTION: Do not use this Periodic Products material in medical applications involving permanent implantation in the human body or permanent contact with internal body fluids or tissues,

Do not use this Periodic Products material in medical applications involving brief or temporary implantation in the human body or contact with internal body fluids or tissues unless the material has been provided directly from Periodic Products under an agreement which expressly acknowledges the contemplated use.

Periodic Products makes no representation, promise, express warranty or implied warranty concerning the suitability of this material for use in implantation in the human body or in contact with internal body fluids or tissues.

2. COMPOSITION/INFORMATION ON INGREDIENTS

CONTAINING COMPONENTS	AMOUNT
poly-octadecylbutanedioate	100%

COMPOSITION COMMENT

All the commercial components of this material are on the US EPA'S Toxic Substances Control Act Chemical Substance Inventory. Some manufacturing impurities may not appear on the TSCA Inventory list. TSCA Inventory rules do not require listings for chemicals that are unintentionally present as impurities.

3. HAZARDS IDENTIFICATION

********** EMERGENCY OVERVIEW **********

Solid or free flowing white to yellow powder.

- MAY CAUSE RESPIRATORY TRACT IRRITATION IF INHALED

POTENTIAL HEALTH EFFECTS

EYE:
Not expected to cause prolonged or significant eye irritation. If this material is heated, thermal burns may result from eye contact.

SKIN:
Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin. If this material is heated, thermal burns may result from skin contact.

INGESTION:
Not expected to be harmful if swallowed.

INHALATION:
The dust from this material may cause respiratory irritation. If this material is heated, fumes nay be unpleasant and produce nausea and irritation of the upper respiratory tract.

SIGNS AND SYMPTOMS OF EXPOSURE:
Thermal burns to the eye: may include pain, tearing, reddening, swelling, and impaired vision. Thermal burns to the skin: may include pain or feeling of heat, discoloration, swelling, and blistering. Respiratory irritation: may include coughing and difficulty breathing.

4. FIRST AID MEASURES

EYE:
No specific first aid measures are required because this material is not expected to cause eye irritation. As a precaution remove contact lenses, if worn, and flush eyes with water- If heated material should splash into eyes, flush eyes immediately with fresh water for 15 minutes while holding the eyelids open. Remove contact lenses, if worn. Get immediate medical attention.

SKIN:
No specific first aid measures are required because this material is not expected to be harmful if it contacts the skin. As a precaution, remove clothing and shoes if contaminated. Wash skin with soap and water. Wash or clean contaminated clothing and shoes before reuse. If the hot material gets on skin, quickly cool in water. See a doctor for extensive burns. Do not try to peel the solidified material from the skin or use solvents or thinners to dissolve it. The use of vegetable oil or mineral oil is recommended for removal of this material from the skin.

INGESTION:
No specific first aid measures are required because this material is not expected to be harmful if swallowed.

INHALATION:
Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

5. FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:
OSHA Classification (29 CFR 1910-1200): Not classified as flammable or combustible.

NFPA Classification (NFPA 30 1-7.3.2): Class 111B: Combustible.
FLAMMABLE PROPERTIES;
FLASH POINT: NDA.
AUTOIGNITION: NA
FLAMMABILITY LIMITS (% by volume in air): Lower: NA Upper: NA
EXTINGUISHING MEDIA - Not combustible.

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0.

FIRE FIGHTING INSTRUCTIONS:

This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

COMBUSTION PRODUCTS:

Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

CHEMTREC EMERGENCY-NUMBER (24 hr): (800)424-9300 or (703)527-3387
International Collect Calls Accepted

ACCIDENTAL RELEASE MEASURES:

Clean up spills immediately, observing precautions in Exposure Controls/ Personal Protection section. If liquid material is spilled, allow it to cool and solidify before proceeding with disposal methods.

7. HANDLING AND STORAGE

Avoid contact with eyes, skill, and clothing. Avoid breathing dust. Avoid contact of heated material with eyes, skin, and clothing. Avoid breathing vapor or fumes from heated material.

FOR MATERIAL PACKED IN STEEL DRUMS: Do not use pressure to empty drum or drum may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat,' flame,' sparks, static electricity, or other sources of ignition. They may 'explode' and cause injury or death. Empty drums should be completely drained, properly bunged, and promptly returned to a drum re-conditioner, or properly disposed of. Avoid contaminating soil or releasing this material into sewage and drainage systems and, bodies of water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all

instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS
Use in a well-ventilated area. If heated material generates vapor, or fumes, use process enclosures, local exhaust ventilation, or other engineering controls to control exposure. Ventilation requirements must be locally determined.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION;
No special eye protection is normally required. Wear safety glasses with side shields when working with this material as a good safety practice. If this material is heated, wear chemical goggles and a face shield, if engineering controls or work practices are not adequate to prevent eye contact.

SKIN PROTECTION:
Wear protective clothing to minimize skin contact as a good industrial hygiene practice. Selection of protective clothing will depend on operations conducted. Consider physical requirements and other substances when selecting protective clothing. If this material is heated, wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate to prevent skin contact.

RESPIRATORY PROTECTION:
No respiratory protection is normally required. If user operations generate irritating levels of airborne material that are not adequately controlled by ventilation wear a NIOSA approved respirator that provides adequate protection. Use the following elements for air-purifying respirators; High Efficiency Particulate Air

If heated material generates vapor or fumes that are not adequately controlled by ventilation, wear a NIC6H approved respirator. Use the following elements for air-purifying respirators: Organic Vapor

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:	Solid or free flowing white to yellow powder.
pH:	NA
VAPOR PRESSURE:	NA
VAPOR DENSITY (AIR=1) :	NA
BOILING POINT:	NDA
MELTING POINT:	(120-131C)
SOLUBILITY:	Insoluble in hydrocarbon solvents; insoluble in water.
SPECIFIC GRAVITY:	0.97 @ 15.6/15.6C

EVAPORATION RATE: NA
VISCOSITY: NA
PERCENT VOLATILE (VOL): < 1%

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: NDA

CHEMICAL STABILITY: Decomposes at temperatures above 300C.

CONDITIONS TO AVOID: Avoid temperatures above 300C.

INCOMPATIBILITY WITH OTHER MATERIALS: May react with strong bases or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

HAZARDOUS POLYMERIZATION: Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
The mean 24-hour eye irritation score in rabbits is 11.2/110. The mean 24-72 hour EU eye irritation scores in rabbits for corneal opacity, iritis, conjuctival redness, and conjunctival chemosis, respectively, are: 0.1, 0.1, 0.7, 0.5.

SKIN EFFECTS:
For a 24-hour exposure, the Primary Irritation Score (PIS) in rabbits is: 3.1. The acute dermal LD50 in rats is >2 g/kg.

ACUTE ORAL EFFECTS:
The acute oral LD50 in male rats is > 8 g/kg.

ACUTE INHALATION EFFECTS:
The acute respiratory toxicity is based on data for a similar material.

SUBCHRONIC EFFECTS:
The product was evaluated in a 28-day oral toxicity test in rats at dose levels of 0, 100, 500 and 1000 mg/Jcg/day. No adverse treatment-related effects were detected.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:
This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on data for a similar material.

ENVIRONMENTAL FATE:
No data available.

13. DISPOSAL CONSIDERATIONS

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

14. SHIPPING

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g. technical name) and mode-specific or quantity-specific shipping requirements.

DOT SHIPPING NAME: NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE FEDERAL DOT
DOT HAZARD CLASS: NOT APPLICABLE
DOT IDENTIFICATION NUMBER: NOT APPLICABLE
DOT PACKING GROUP: NOT APPLICABLE

15. REGULATORY INFORMATION

SARA 311 CATEGORIES:	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01=SARA. 313 02=MASS RTK	11=NJ RTK	22=TSCA Sect 5(a) (2)
03=NTP Carcinogen 04=CA	12=CERCLA 302.4	23=TSCA Sect 6
Prop 65-Carcin 05=CA	13=MN RTK	24=TSCA Sect 12(b)
Prop 65-Repro Tox	14=ACGIK TWA	25=TSCA Sect 8(a)
06=IARC Group 1 07*=IARC	15=ACGIH STEL	26=TSCA Sect 8(d)
Group 2A 08=IARC Group	16=ACGIH Calc TLV	27=TSCA Sect 4(a)
2B 09=SARA 302/304 10=PA	JL,7=CISHA PEL	23=Canadian WHMIS
RTK	18=DOT Marine Pollutant	29=0SHA CEILING
	19=Chevron TWA	30=Chevron STEL
	20=EPA Carcinogen	

None of the listed components of this material are found on the regulatory lists indicated.

OTHER INFORMATION

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0;
HMIS RATINGS: Health 1; Flammability 1; Reactivity 0;
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *_ Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HNIS ratings)

REVISION STATEMENT;
Changes have been made throughout this Material Safety Data Sheet.

Please read the entire document.

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	TPQ - Threshold Planning Quantity
RO - Reportable Quantity	PEL - Permissible Exposure Limit
C - Ceiling Limit	CAS - Chemical Abstract Service Number
Al-5 - Appendix A Categories	() - Change Has Been Proposed

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1310.12001 and the ANSI MSDS Standard fZ400.1) by Periodic Products, 3864 SW 30th Avenue, Hollywood, Florida 33312.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof, since this information stay be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the-results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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