SAFETY DATA SHEET

Issue Date 26-Mar-2014 **Revision Date** 26-Mar-2014 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **ZINC STEARATE NB-60; ZINC STEARATE NB-60 (SW)**

Other means of identification

Biogenix Product Code 10040
SDS Code ZNSTNB60
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Chemical intermediate. Lubricant.
Uses advised against Consumer use

Details of the supplier of the safety data sheet

Supplier Address
PMC Biogenix, Inc.
1231 Pope Street
Memphis, TN 38108
USA

Manufacturer Address
PMC Biogenix, Inc.
1231 Pope Street
Memphis, TN 38108
USA

Emergency telephone number

Company Phone Number PMC Biogenix Customer Service: 1-800-641-2152
24 Hour Emergency Phone Number CHEMTREC: 1-800-424-9300
Emergency Telephone Biogenix Environmental Health and Safety Department +1-901-320-5820

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Emergency Overview

Hazard statements
Handle in accordance with good industrial hygiene and safety practice

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance powder **Physical state** Solid **Odor** Slight characteristic

Precautionary Statements - Response
Get medical advice/attention if you feel unwell
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Drink 1 or 2 glasses of water. Get medical advice/attention if you feel unwell.

Hazards not otherwise classified (HNOC)
Dust can form an explosive mixture with air
Other Information
May be harmful in contact with skin. Causes mild skin irritation.
Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Zinc stearate	557-05-1	97	*
Octadecanoic acid	57-11-4	3	*

* The exact percentage (concentration) of composition has been withheld as a trade secret. If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists: Get medical advice/attention.

Skin Contact Wash skin with soap and water. (Get medical attention immediately if symptoms occur.).

Inhalation Remove to fresh air. (Get medical attention immediately if symptoms occur.).

Ingestion Clean mouth with water and drink afterwards plenty of water. (Get medical attention immediately if symptoms occur.).

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
Avoid creating dust. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous combustion products Carbon dioxide (CO2). Carbon monoxide. Hazardous metal fumes and oxides.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid creating dust. Dust can form an explosive mixture with air.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information. The product is insoluble and floats on water. Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for cleaning up Avoid creating dust. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Incompatible with oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines Exposure limits are listed below, if they exist.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	PMC OEL
Zinc stearate 557-05-1	TWA: 10 mg/m^3 except stearates of toxic metals	TWA: 15 mg/m^3 total dust TWA: 5 mg/m^3 respirable fraction (vacated) TWA: 10 mg/m^3 total dust (vacated) TWA: 5 mg/m^3 respirable fraction	TWA: 10 mg/m^3 total dust TWA: 5 mg/m^3 respirable dust	-

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations, Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Avoid contact with skin, eyes or clothing. Avoid breathing (dust, vapor, mist, gas). Wash face, hands and any exposed skin thoroughly after handling. Use personal protective equipment as required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid		
Appearance	powder	**Odor**	Slight characteristic
Color	white	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	No information available	
Melting point/freezing point	120 °C / 248 °F	
Boiling point / boiling range	> 233 °C / 451 °F	Decomposes
Flash point	233 °C / 451 °F	Pensky-Marten closed cup ASTM D 93
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	No information available	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	Dust can form an explosive mixture with air	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	1.1 g/cm3 @ 25 °C
Bulk density	No information available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Avoid creating dust. Dust can form an explosive mixture with air. Extremes of temperature and direct sunlight.

Incompatible materials
Incompatible with oxidizing agents.

Hazardous Decomposition Products
Carbon dioxide (CO2), Carbon monoxide, Hazardous metal fumes and oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information
Inhalation	Inhalation of dust in high concentration may cause irritation of respiratory system. No known effect based on information supplied.
Eye contact	Dust contact with the eyes can lead to mechanical irritation.
Skin Contact	No data available.
Ingestion	No data available.

Information on toxicological effects

Symptoms	No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive toxicity	No information available.
STOT - single exposure	No information available
STOT - repeated exposure	No information available.
Target Organ Effects	Eyes, Respiratory system, Skin.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity	3% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	5155 mg/kg
ATEmix (dermal)	2062 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

100% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient

Zinc stearate 557-05-1	1.2

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	California Hazardous Waste Status
Zinc stearate 557-05-1	Toxic

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated.
Proper shipping name Not regulated

IMDG Not regulated Not regulated

15. REGULATORY INFORMATION

All of the components in the product are on the following Inventory lists
The classification and labeling information in this Safety Data Sheet should be viewed as provisional.

International Inventories

EINECS/ELINCS	Complies
TSCA	Complies
AICS	Complies
DSL/NDSL	Complies
ENCS	Complies
KECL	Complies
PICCS	Complies
IECSC	Complies
NZIoC	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Zinc stearate - 557-05-1	557-05-1	97	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc stearate 557-05-1		X		

CERCLA

Any Substance regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) is listed below, if it exists.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Zinc stearate 557-05-1	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA	**Health hazards** 1	**Flammability** 1	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 1	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

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No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet