SAFETY DATA SHEET

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

Product identifier
Product Name ADVAWAX™ 280 SPECIALTY WAX

Other means of identification
SDS Code 280WAX
Document 280WAX
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use 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

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 Chmtrc [INT]: +1-703-527-3887

2. HAZARDS IDENTIFICATION

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

Label elements

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

Appearance pellets
Physical state Solid
Odor Slight

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.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,N'-Ethylenebis(stearamide)</td>
<td>110-30-5</td>
<td>0-98</td>
<td>*</td>
</tr>
<tr>
<td>Hexadecanamide, N,N'-1,2-ethanediylbis-</td>
<td>5518-18-3</td>
<td>0-98</td>
<td>*</td>
</tr>
<tr>
<td>Fatty acids, C14-18</td>
<td>67701-02-4</td>
<td>2</td>
<td>*</td>
</tr>
</tbody>
</table>

* 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
No information available.

Hazardous combustion products
Carbon oxides. Hydrocarbons.

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

Environmental precautions
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. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up
Methods for cleaning up
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
None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
<th>PMC OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,N’-Ethylenebis(stearamide) 110-30-5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hexadecanamide, N,N’-1,2-ethanediylbis-5518-18-3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Fatty acids, C14-18 67701-02-4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dust dust</td>
<td>TWA: 10 mg/m³ Inhl TWA: 3 mg/m³ Resp</td>
<td>TWA: 5 mg/m³ Resp TWA: 15 mg/m³ Total 29CFR1910.1000</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Controls
Showers, Eyewash stations, Ventilation systems.

Individual protection measures, such as personal protective equipment

<table>
<thead>
<tr>
<th>Eye/face protection</th>
<th>Wear safety glasses with side shields (or goggles).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin and body protection</td>
<td>Wear protective gloves and protective clothing.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>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.</td>
</tr>
<tr>
<td>General Hygiene Considerations</td>
<td>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.</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES
Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>140 - 145 °C / 284 - 293 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt; 300 °C / 572 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 250 °C / &gt; 482 °F</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>&lt;0.01 mmHg @ 68 °F</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Insoluble in water</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>300°C / 572°F</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

Other Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Softening point</td>
<td>No information available</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available</td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>0</td>
</tr>
<tr>
<td>Density</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
</tr>
</tbody>
</table>

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
Extremes of temperature and direct sunlight.

Incompatible materials
None known based on information supplied.

Hazardous Decomposition Products
Carbon oxides, Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Product 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 known hazard in contact with skin.

Ingestion
Product does not present an acute toxicity hazard based on known or supplied information.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,N'-Ethylenebis(stearamide)</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>&gt; 58 mg/L (Rat)</td>
</tr>
</tbody>
</table>

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 known effect.

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.

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.

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,N'-Ethylenebis(stearamide)</td>
<td>&gt; 0.053: 72 h Pseudokirchneriella subcapitata mg/L ErC50</td>
<td>&gt; 0.027: 96 h Orzias latipes mg/L LC50</td>
<td>&gt; 0.0022: 48 h Daphia magna mg/L LC50 (semi-static)</td>
<td>&gt; 10000: 48 h Daphia magna mg/L LC50 (static)</td>
</tr>
<tr>
<td>110-30-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.

Bioaccumulation
No information available.

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.

14. TRANSPORT INFORMATION

DOT
Not regulated

IATA
Not regulated.

IMDG
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

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies/Does not comply</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>NZIoC</td>
<td>Does not comply</td>
</tr>
</tbody>
</table>

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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Complies/Does not comply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>No</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

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)
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

U.S. EPA Label Information
EPA Pesticide Registration Number  Not Applicable

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>Physical hazards 0</td>
</tr>
<tr>
<td>HMIS</td>
<td>Health hazards</td>
<td>Flammability</td>
<td>Physical hazards</td>
<td>Personal protection</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

Prepared By  PMC Group
Issue Date  25-Nov-2013
Revision Date  25-Nov-2013
Revision Note  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