**SAFETY DATA SHEET**

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

<table>
<thead>
<tr>
<th>1.1. Product identifier</th>
<th>PARICIN* 220</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synonyms:</strong></td>
<td>N-(2-Hydroxyethyl)-12-hydroxystearamide, 12-Hydroxy-N-(2-hydroxyethyl)stearamide</td>
</tr>
<tr>
<td><strong>Chemical Abstracts Registry No:</strong></td>
<td>106-15-0</td>
</tr>
</tbody>
</table>

| 1.2. Relevant identified uses of the substance or mixture and uses advised against |
| Plastics Additive |

| 1.3. Details of the supplier of the safety data sheet |
| Vertellus LLC |
| 201 North Illinois Street, Suite 1800 |
| Indianapolis, Indiana 46204 USA |
| 1-336-292-1781 |
| **e-mail Address:** | sds@vertellus.com |

| 1.4. Emergency telephone number |
| **Vertellus:** | 1-336-292-1781 |
| **CHEMTREC (USA):** | +1-800-424-9300 (collect calls accepted) |
| **CHEMTREC (International):** | +1-703-527-3887 (collect calls accepted) |
| **NRCC (China):** | +86 25 85477110 |

### SECTION 2: Hazards identification

| Not Classified as Hazardous |

| 2.2. Label elements |
| **Signal Word:** | Not required. |
| **Hazard Precautions:** | Not Classified as Hazardous |
| **Prevention Precautionary Statements:** | Note: These precautionary statements are not prescribed by directive 1272/2008 as this product is not classified as hazardous under this directive. Wash hands thoroughly after handling with soap and water. Wear protective gloves, protective clothing, eye protection and face protection. If swallowed, in eyes, on skin or inhaled call a poison center or doctor/physician if you feel unwell. If inhaled, remove victim to fresh air and keep at rest in a comfortable position for breathing. Take off contaminated clothing before reuse. Store in a well-ventilated place. Keep container tightly closed. |

| **First Aid Precautionary Statements:** | Not required. |

| 2.3. Other hazards |
| **Other Hazards:** | Not applicable. |

### SECTION 3: Composition/information on ingredients

| 3.1. Substances or 3.2. Mixtures |

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<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Concentration (weight %)</th>
<th>EC Number</th>
<th>CLP Inventory/Annex VI</th>
<th>EU CLP Classification (1272/2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octadecanamide, 12-hydroxy-N-(2-hydroxyethyl)-</td>
<td>106-15-0</td>
<td>~ 100</td>
<td>203-367-7</td>
<td>Not listed.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

NOTE: See Section 8 for exposure limit data for these ingredients. See Section 15 for trade secret information (where applicable).

SECTION 4: First aid measures

4.1. Description of first aid measures

**Skin Contact:** Wash with soap and water. Get medical attention if irritation develops or persists.

**Eye Contact:** Rinse eyes immediately with large amounts of water for at least 15 minutes, occasionally lifting the eyelids. Seek medical advice if symptoms persist.

**Inhalation:** If exposed to excessive levels remove to fresh air and get medical attention if cough or other symptoms develop.

**Ingestion:** If swallowed, do not induce vomiting. Get prompt medical attention. Do not give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

**Acute:** Single exposure to inhalation is not likely to be hazardous. Contact with eyes may cause slight irritation. Not expected to cause dermal irritation. May cause abdominal cramps, nausea, and diarrhea.

**Delayed Effects:** None known.

4.3. Indication of any immediate medical attention and special treatment needed

**Note to Physician:** No specific indications. Treatment should be based on the judgment of the physician in response to the reactions of the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

**Appropriate Extinguishing Media:** Carbon dioxide, Dry chemical, Alcohol foam, Water spray

5.2. Special hazards arising from the substance or mixture

**Hazardous Products of Combustion:** As with other organic materials, combustion will produce carbon monoxide and carbon dioxide. Smoke

**Potential for Dust Explosion:** Not known to be sensitive to mechanical impact or static discharges.

**Special Flammability Hazards:** Material may burn, but does not ignite readily. Avoid high temperature.

5.3. Advice for firefighters

**Basic Fire Fighting Guidance:** Evacuate area and fight fire from a safe distance. Wear self-contained breathing apparatus and protective clothing. Normal firefighting procedures may be used.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuation Procedures: Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Special Instructions: See Section 8 for personal protective equipment recommendations. Remove all contaminated clothing to prevent further absorption. Decontaminate affected personnel using the first aid procedures in Section 4. Leather shoes that have been saturated must be discarded.

6.2. Environmental precautions

Prevent releases to soils, drains, sewers and waterways.

6.3. Methods and material for containment and cleaning up

Do not allow the spilled product to enter public drainage system or open waterways. Ensure clean-up measures are in compliance with OSHA (29 CFR 1910.120). Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Wear protective equipment during clean-up. Carefully scoop up and place into appropriate disposal container. Scrub area with detergent and water.

6.4. Reference to other sections

Refer to section 8 for information on selecting personal protective equipment. Refer to section 13 for information on spilled product, absorbent and clean up material disposal instructions.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for Unique Hazards: Not applicable.

Practices to Minimize Risk: Wear appropriate protective equipment when performing maintenance on contaminated equipment. Wash hands thoroughly before eating or smoking after handling this material. Do not eat, drink or smoke in work areas. Prevent contact with incompatible materials. Avoid spills and keep away from drains. Handle in a manner to prevent generation of aerosols, vapors or dust clouds.

Special Handling Equipment: Not applicable.

7.2. Conditions for safe storage, including any incompatibilities

Storage Precautions & Recommendations: Keep container closed when not in use. Maintain dry, ventilated conditions for storage. S24/25: Avoid contact with skin and eyes. Wash thoroughly after handling.

Dangerous Incompatibility Reactions: Strong oxidizing agents

Incompatibilities with Materials of Construction: None known

7.3. Specific end use(s)

If a chemical safety assessment has been completed an exposure scenario is attached as an annex to this Safety Data Sheet. Refer to this annex for the specific exposure scenario control parameters for uses identified in subsection 1.2.

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

Occupational Exposure Limit: Not applicable.
Air Monitoring Method: Not required

8.2. Exposure controls

Also see the annex to this SDS (if applicable) for specific exposure scenario controls.

Other Engineering Controls: All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided.
Personal Protective Equipment: Impervious gloves, boots, and clothing, chemical goggles or face shield where necessary, and a NIOSH approved chemical cartridge respirator or supplied air breathing apparatus with organic vapour/acid gas cartridges with particle filters.
Thermal Hazards: Not applicable.
Environmental Exposure Controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance, State & Odor (ambient temperature): Brittle, odorless tan solid.
Vapor Pressure: No data available.
Specific Gravity or Density: No data available.
Boiling Point: No data available.
Solubility in Water: Insoluble
pH: No data available.
Viscosity: Solid @77°F
Flash Point and Method: No data available.
Flammability (solid, gas): No data available.
Explosive Properties: Not explosive.
Evaporation Rate: < 1 (Butyl Acetate = 1)
Vapor Density (air = 1): Heavier than air.
Freezing / Melting Point: 207 - 221 °F
Octanol / Water Coefficient: No data available.
Odor Threshold: No data available.
Autoignition Temperature: No data available.
Flammable Limits: No data available.
Decomposition Temperature: No data available.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity
Not classified as dangerously reactive.
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10.2. Chemical stability
Stable

10.3. Possibility of hazardous reactions
Not prone to hazardous polymerization

10.4. Conditions to avoid
Strong oxidizers.

10.5. Incompatible materials
Strong oxidizing agents

10.6. Hazardous decomposition products
As with other organic materials, combustion will produce carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute Oral LD50: No data available.
Acute Dermal LD50: No data available.
Acute Inhalation LC50: No data available.
Skin Irritation: May cause slight irritation.
Eye Irritation: May cause slight irritation.
Skin Sensitization: Not expected to be a sensitizer.
Mutagenicity: No data available.
Reproductive / Developmental Toxicity:
Carcinogenicity: This material is not listed by IARC, NTP or OSHA as a carcinogen. No test data is available that indicates this material is a carcinogen.
Target Organs: None known
Aspiration Hazard: Based on physical properties, not likely to be an aspiration hazard.
Primary Route(s) of Exposure: Skin contact and absorption, eye contact, and inhalation. Ingestion is not likely to be a primary route of exposure.

Most important symptoms and effects, both acute and delayed
Single exposure to inhalation is not likely to be hazardous. Contact with eyes may cause slight irritation.
Not expected to cause dermal irritation.
May cause abdominal cramps, nausea, and diarrhea. Delayed Effects: None known.

SECTION 12: Ecological information

12.1. Toxicity
No data available.

12.2. Persistence and degradability
No data available

12.3. Bioaccumulative potential
No data available

12.4. Mobility in soil
No data available

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12.5. Results of PBT and vPvB assessment
No data available.

12.6. Other adverse effects
No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>US EPA Waste Number:</th>
<th>Non-Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Classification: (per US regulations)</td>
<td>The waste may be classified as &quot;special&quot; or hazardous per State regulations.</td>
</tr>
<tr>
<td>Waste Disposal:</td>
<td>NOTE: Generator is responsible for proper waste characterization. State hazardous waste regulations may differ substantially from federal regulations. Dispose of this material responsibly, and in accordance with standard practice for disposal of potentially hazardous materials as required by applicable international, national, regional, state or local laws, and environmental protection duty of care principles. Do NOT dump into any sewers, on the ground, or into any body of water. For disposal within the EC, the appropriate classification code according to the European Community List of Wastes should be used. Note that disposal regulations may also apply to empty containers and equipment rinsates.</td>
</tr>
</tbody>
</table>

SECTION 14: Transport information

The following information applies to all shipping modes (DOT/IATA/ICAO/IMDG/ADR/RID/ADN), unless otherwise indicated:

14.1. UN number | Not applicable |
14.2. UN proper shipping name | Chemicals, n.o.s. Octadecanamide, 12-hydroxy-N-(2-hydroxyethyl)- |
14.3. Transport hazard class(es) | Not applicable |
14.4. Packing group | Not applicable |
14.5. Environmental hazards | Not applicable |
14.6. NA Emergency Guidebook Numbers: | | |
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

<table>
<thead>
<tr>
<th>Chemical Inventory Lists:</th>
<th>Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA TSCA:</td>
<td>Listed</td>
</tr>
<tr>
<td>EINECS:</td>
<td>203-367-7</td>
</tr>
<tr>
<td>Canada(DSL/NDSL):</td>
<td>DSL</td>
</tr>
<tr>
<td>Japan:</td>
<td>(2)-2727</td>
</tr>
<tr>
<td>Korea:</td>
<td>Not listed.</td>
</tr>
<tr>
<td>Australia:</td>
<td>Listed</td>
</tr>
<tr>
<td>China:</td>
<td>Listed</td>
</tr>
<tr>
<td>Philippines:</td>
<td>Listed</td>
</tr>
<tr>
<td>Taiwan:</td>
<td>Listed</td>
</tr>
<tr>
<td>New Zealand:</td>
<td>Listed</td>
</tr>
<tr>
<td>German Water Hazard Classification:</td>
<td>No data available.</td>
</tr>
<tr>
<td>SARA 313:</td>
<td>Not listed.</td>
</tr>
<tr>
<td>Reportable Quantities:</td>
<td>None.</td>
</tr>
</tbody>
</table>

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15.2. Chemical safety assessment
Not applicable.

SECTION 16: Other information

Classification Method: On basis of test data
Legend of Abbreviations:

ACGIH = American Conference on Governmental Industrial Hygienists.
CAS = Chemical Abstracts Service.
DSL/NDSL = Domestic Substances List/Non-Domestic Substances List.
EC = European Community.
EINECS = European Inventory of Existing Commercial Chemical Substances.
ELINCS = European List of Notified Chemical Substances.
EU = European Union.
GHS = Globally Harmonized System.
LC = Lethal Concentration.
LD = Lethal Dose.
NIOSH = National Institute of Occupational Safety and Health.
NTP = National Toxicology Program.
OSHA = Occupational Safety and Health Administration.
PEL = Permissible Exposure Limit.
RQ = Reportable Quantity.
TLV = Threshold Limit Value.
WHMIS = Workplace Hazardous Materials Information System.

Important Note: Please note that the information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. The information contained herein may change without prior notice. THIS SAFETY DATA SHEET SUPERSEDES ALL PREVIOUS EDITIONS.

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Email: SDS@Vertellus.com
Revision Details: Revised in all sections to GHS format.