SAFETY DATA SHEET
(according to (EC) 1907/2006)

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

1.1. Product identifier XXX-1

Synonyms: CASTUNG® 103G-H; XXX-1

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

Food processing plant lubricant.

1.3. Details of the supplier of the safety data sheet

Manufacturer Information: Vertellus LLC
201 North Illinois Street, Suite 1800, Indianapolis, IN 46204

Non-Emergency Phone Number: 336-292-1781
Non-Emergency Fax Number: 336-854-4058
E-Mail Address: msds@vertellus.com

1.4. Emergency telephone number

Vertellus: 336-292-1781
CHEMTREC (USA): (800) 424-9300 (collect calls accepted); (Int'l): (703) 527-3887 (collect calls accepted; 011 prefix not needed)

SECTION 2: Hazards identification

<table>
<thead>
<tr>
<th>HMIS Rating</th>
<th>EC Classification</th>
<th>WHMIS (Canada)</th>
<th>Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH 0</td>
<td>Not Classified as Hazardous</td>
<td>Not Controlled</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>FLAMMABILITY 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REACTIVITY 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.1. Classification of the substance or mixture
(According to Regulation (EC) No 1272/2008)
Not classified as hazardous under this directive.

Signal Word:
Not required.

Hazard Precautions:
Not classified as hazardous under this directive.

2.2. Label elements
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Prevention Precautions:
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 Precautions:
Not required.

Storage Precautions:
Not required.

Disposal Precautions:
Not required.

Single Exposure Target Organs:
Not applicable

Repeated Exposure Target Organs:
Not applicable

(According to Directive 67/548/EEC)

Symbol: Not classified as hazardous under this directive.
Risk Phrases: Not classified as hazardous under this directive.
Safety Phrases: Not classified as hazardous under this directive.

2.3. Other hazards

Signs and Symptoms of Potential Overexposure: Contact with this product may cause mild irritation to skin, eyes and mucous membranes. No dermal reactions were observed in a 48-hour human patch test. This product is not expected to be toxic by inhalation, ingestion or dermal exposure. Although it has been observed that health effects related to this substance are minimal, as with any chemical, use appropriate precautions during handling.

Primary Route(s) of Exposure: Skin contact and absorption, eye contact, and inhalation. Ingestion is not likely to be a primary route of exposure.

Medical Conditions Aggravated by Exposure: Persons with pre-existing skin or respiratory disorders may be at increased risk from overexposure to this material. This is not likely to be a problem when appropriate procedures are used to minimize exposure.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Concentration (%)</th>
<th>EINECS / ELINCS</th>
<th>EU Symbol</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXX-1</td>
<td>64147-40-6</td>
<td>100.000000</td>
<td>264-705-7</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

NOTE: See Section 8 of this MSDS for exposure limit data for these ingredients.
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See Section 15 of this MSDS for trade secret information (where applicable).
See Section 16 of this MSDS for the full text of the R-phrases above.

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin Contact: Wash thoroughly after skin contact. The exposed area should be examined by medical personnel if irritation or pain persists after the area has been washed.

Eye Contact: Immediately flush the eyes with plenty of water for at least 15 minutes. Call a physician. GET MEDICAL ATTENTION.

Inhalation: Remove from exposure. If not breathing, give artificial respiration and call a physician. If breathing has stopped, give artificial respiration. Keep affected person warm and at rest. GET MEDICAL ATTENTION.

Ingestion: If swallowed, do not induce vomiting. Get prompt medical attention. Give oxygen if respiration is shallow. GET MEDICAL ATTENTION.

4.2. Most important symptoms and effects, both acute and delayed

Acute: Contact with this product may cause mild irritation to skin, eyes and mucous membranes. No dermal reactions were observed in a 48-hour human patch test. This product is not expected to be toxic by inhalation, ingestion or dermal exposure. Although it has been observed that health effects related to this substance are minimal, as with any chemical, use appropriate precautions during handling.

Delayed Effects: None known.

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

Thermal Exposure: Not applicable.

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: Use water fog, alcohol resistant foam, carbon dioxide, or dry chemical.

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.

Potential for Dust Explosion: Not applicable.

Special Flammability Hazards: Cloth or absorbent materials saturated with product may self-ignite on drying. Thoroughly wet any oil-soaked materials immediately with water and dispose in sealed metal containers.

5.3. Advice for firefighters

Basic Fire Fighting Guidance: Wear self-contained breathing apparatus and protective clothing. Normal firefighting procedures may be used.

Flammability Classification (OSHA): Combustible Liquid - Class III B
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: 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. not applicable

6.2. Environmental precautions

Prevent releases to soils, drains, sewers, and waterways.

6.3. Methods and material for containment and cleaning up

Containment Techniques and Clean-up Procedures: Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Remove all ignition sources. Ventilate the area of spill or leak. Wear protective equipment during clean-up. For small spills, use suitable absorbent material and collect for later disposal. For large spills, the area may require diking to contain the spill. Material can then be collected (e.g., suction) for later disposal. After collection of material, flush area with water. Dispose of the material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws.

Special Reporting Requirements: Not applicable.

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: Materials saturated with product or containing product residues should be thoroughly wetted with water and disposed in metal containers to prevent self-ignition.

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.

Special Handling Equipment: Not applicable.

7.2. Conditions for safe storage, including any incompatibilities

Storage Precautions & Recommendations: This product should be stored at ambient temperature in a dry, well-ventilated location. Keep container closed when not in use. Keep away from strong oxidizing agents.

Dangerous Incompatibility Reactions: Strong oxidizing agents
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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

8.1. Control parameters
Exposure Limits (United States): OSHA PEL: Not established ACGIH TLV: Not established

8.2. Exposure controls
Also see the annex to this SDS (if applicable) for specific exposure scenario controls.
Personal Protective Equipment: Where overexposures are a concern, use NIOSH-approved chemical cartridge respirator or supplied-air breathing equipment as necessary. Chemical goggles, and impervious clothing, gloves and boots should be considered if extensive splashing is likely. Do not smoke or eat in areas where this material is handled. Wash hands thoroughly before eating or smoking.
Ventilation: All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided.
Other Engineering Controls: All appropriate engineering controls should be used to minimize exposure potential. Use exhaust ventilation to keep airborne concentrations below exposure limits.
Thermal Hazards: Not applicable.
Additive or Synergistic Effects: None known.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Appearance, State & Odor (ambient temperature): Clear amber liquid with a characteristic odor.
Molecular Formula: Not available
Vapor Pressure: < 0.01 mm Hg @ 25°C
Specific Gravity or Density: 0.931
Boiling Point: 595 °F
Solubility in Water: insoluble
pH: Not available.
Viscosity: Not available.
Flash Point and Method: 400°F (204°C) (Pensky-Martens Closed Cup)
Molecular Weight: Not available.
Evaporation Rate: < 1 (Butyl Acetate = 1)
Vapor Density (air = 1): > 1 (1 = air)
Freezing / Melting Point: -40 °F Not available.
Octanol / Water Coefficient: log Kow = 22.65 (estimated)
Odor Threshold: Not available
Autoignition Temperature: 840°F
Flammable Limits: Not available (LEL) – Not available (UEL)

9.2. Other information
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Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity
Not classified as dangerously reactive.

10.2. Chemical stability
Stable

10.3. Possibility of hazardous reactions
Polymerization is not expected to occur

10.4. Conditions to avoid
Avoid static discharge and uncontrolled exposure to high temperatures.

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:
   Not available.

   Acute Dermal LD50:
   Not available.

   Acute Inhalation LC50:
   Not available.

   Skin Irritation:
   Prolonged or repeated contact may cause irritation in some individuals.

   Skin Sensitization:
   No data available.

   Eye Irritation:
   May cause slight irritation.

   Target Organs:
   No data available.

   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.

   Teratogenicity:
   No data available.

   Reproduction:
   No data available.

   Neurotoxicity:
   No data available.

   Mutagenicity:
   No data available.

SECTION 12: Ecological information

12.1. Toxicity
Not available.

12.2. Persistence and degradability
No data

12.3. Bioaccumulative potential
No data

12.4. Mobility in soil
No data
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12.5. Results of PBT and vPvB assessment
Not available.

12.6. Other adverse effects
No data available. Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

US EPA Waste Number: Not applicable
Waste Classification: (per US regulations) The waste may be classified as "special" or hazardous per State regulations.
NOTE: Generator is responsible for proper waste characterization. State (USA) hazardous waste regulations may differ substantially from federal (USA) regulations.
Waste Disposal: Dispose of this material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable international, national, regional, state or local laws. Do NOT dump into any sewers, on the ground, or into any body of water. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. Note that disposal regulations may also apply to empty containers and equipment rinsates.

SECTION 14: Transport information

14.1. UN number Not applicable
14.2. UN proper shipping name Chemicals, n.o.s. (Castor Oil, dehydrated)
14.3. Transport hazard class(es) Not applicable
14.4. Packing group Not applicable
14.5. Environmental hazards Not applicable
14.6. Special precautions for user Not available.
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
OSHA Hazards: Possible Irritant. Presents little or no immediate significant hazard if spilled or involved in a fire.
WHMIS Classification: Not Controlled
Chemical Inventory Lists:
TSCA: Present
EINECS: 264-705-7
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Canada (DSL/NDSL): DSL
Japan: (8)-600
Korea: KE-04983
Australia: Present
New Zealand: Present
China: Present
Philippines: Present
Switzerland: Not Listed

New Zealand GHS Classification: Not classified by this country.
Japan GHS Classification: Not classified by this country.
Korea (MOL) GHS Classification: Not classified by this country.
Australia GHS Classification: Not classified by this country.
Taiwan GHS Classification: Not classified by this country.
Indonesia GHS Classification: Not classified by this country.
SARA 313: Not listed.
Reportable Quantities: Not applicable
State Regulations: Not applicable.

15.2. Chemical safety assessment

Not applicable.

SECTION 16: Other information

Full text of R phrases in Section 3: Not applicable.
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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.  
EEC = European Economic 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.  
MOL = Ministry of Labor.  
NEMA = National Emergency Management Agency.  
NIOSH = National Institute of Occupational Safety and Health.  
NTP = National Toxicological Program.  
OSHA = Occupational Safety and Health Administration.  
PEL = Permissible exposure limit.  
RQ = Reportable quantity.  
TLV = Threshold limit value.  
WHMIS = Workplace Hazardous Materials Information System.

Precautionary Statement: 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.

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Original Date of Issue:  8 October 1989

Issued By:  Regulatory Management Department  
Revision Details: Revised in all sections to GHS format.