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

1.1. Product identifier

VORITE® 105

Synonyms: Not applicable

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

Not applicable

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

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

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

Prevention Precautions:
SAFETY DATA SHEET

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: Single exposure to vapors or mist is not likely to be hazardous. Not likely to be toxic by ingestion. Single dose oral toxicity is low.

Primary Route(s) of Exposure: Skin contact and absorption, eye contact, ingestion, inhalation.

Medical Conditions Aggravated by Exposure: No data found

SECTION 3: Composition/information on ingredients

3.1. Substances or 3.2. Mixtures

<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>Trade Secret NJ TSR # 54004100000-5008P</td>
<td>Trade Secret</td>
<td>100.000000</td>
<td>Not Listed</td>
<td>N/A</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

NOTE: See Section 8 of this MSDS for exposure limit data for these ingredients. 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
SAFETY DATA SHEET

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. GET MEDICAL ATTENTION. Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.
Inhalation: No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels remove to fresh air and get medical attention if cough or other symptoms develop.
Ingestion: If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. 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 vapors or mist is not likely to be hazardous. Not likely to be toxic by ingestion. Single dose oral toxicity is low.
Delayed Effects: None known.

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

Thermal Exposure: Not applicable.
Note to Physician: No additional first aid information available

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: None Known
Potential for Dust Explosion: not available
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. As in any fire, wear pressure-demand self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear. Isocyanates Flammable, toxic vapor mixture of cyanide, pyridine, ammonia, oxides of nitrogen and carbon, and hydrogen chloride. Using water can cause frothing with increasing fire intensity. Cloth or absorbent materials saturated with product may self-ignite on drying. Thoroughly wet any product-soaked materials immediately with water and dispose in sealed metal containers.

Flammability Classification (OSHA): Not applicable.
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. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.
LARGE SPILLS: Shut off leak if safe to do so. Clean up spills immediately using Protective Equipment recommended in Section VIII at a minimum.
Contain spilled liquid with sand clay. DO NOT use combustible materials such as sawdust. Retain all contaminated water for treatment.

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: Ensure clean-up measures are in compliance with OSHA (29 CFR 1910.120).
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: 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.
Special Handling Equipment: S24/25: Avoid contact with skin and eyes. Avoid breathing vapors from heated material.

7.2. Conditions for safe storage, including any incompatibilities

Storage Precautions & Recommendations: Materials saturated with product or containing product residues should be thoroughly wetted with water and disposed in metal containers to prevent self-ignition. Keep away from heat, sparks, and
SAFETY DATA SHEET

flame Hot isocyanates may react vigorously with water. Keep container closed when not in use.
Store in a dry area

Dangerous Incompatibility Reactions: Strong acids. Strong alkalies Keep away from halocarbons, halogens, combustible materials and 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

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: Use chemical goggles, faceshields, boots and impervious clothing, if conditions involve potential for splashing or spraying. Chemical goggles; face shields if necessary.


Ventilation: All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided. If ventilation is not sufficient to effectively prevent buildup of vapor/mist/fume/dust, appropriate NIOSH/MSHA respiratory protection must be provided. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, the work atmosphere may be deficient of oxygen, or any other circumstances where air purifying respirators may not provide adequate protection. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, the work atmosphere may be deficient of oxygen, or any other circumstances where air purifying respirators may not provide adequate protection, for example, when air purifying respirators have a short break-through time. Local exhaust ventilation is recommended when generating excessive levels of vapors from handling or thermal processing. If an exposure limit is exceeded provide respiratory protection.

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): Mild Clear yellow liquid
SAFETY DATA SHEET

Molecular Formula: Not available.  Molecular Weight:
Vapor Pressure: Not applicable  Evaporation Rate: < 1 (Butyl Acetate = 1)
Specific Gravity or Density: 0.975000000  Vapor Density (air = 1): 09VDEN020
Boiling Point: Not applicable  Freezing / Melting Point: Not applicable Not applicable
Solubility in Water: Insoluble  Octanol / Water Coefficient: Not applicable
pH: Not applicable  Odor Threshold: Not applicable
Viscosity: 27 Stokes  Autoignition Temperature: Not applicable
Flash Point and Method: 510 deg F (266 deg C) (PMCC (FEO and LCOR) TCC (Crude Nap Oil))  Flammable Limits: Not applicable (LEL) – (UEL)

9.2. Other information
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  Hazardous polymerization will not occur
10.4. Conditions to avoid  Strong acids and oxidizing agents. Do not allow oil soaked materials to dry.
10.5. Incompatible materials  Strong acids. Strong alkalies Keep away from halocarbons, halogens, combustible materials and oxidizing agents.
10.6. Hazardous decomposition products  Products of incomplete combustion may include CO, CO2, NOx, and dense smoke.

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: No data available.
- Skin Sensitization: No data available.
- Eye Irritation: No data available.
- Target Organs: No data available.
- Carcinogenicity: No data available.
- Teratogenicity: No data available.
SAFETY DATA SHEET

Reproduction: No data available.
Neurotoxicity: No data available.
Mutagenicity: No data available.
Additional Toxicity Information: 11TOX_NOTE1

SECTION 12: Ecological information

12.1. Toxicity
Not available.

12.2. Persistence and degradability
No data No data available.

12.3. Bioaccumulative potential
No data

12.4. Mobility in soil
No data

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. (VORITE® 105)

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.

NA Emergency Guidebook Numbers: Not applicable
IMDG EMS: Not applicable
SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
OSHA Hazards: Not applicable.

WHMIS Classification: None

Chemical Inventory Lists:  Status
TSCA: 15TSCA030
EINECS: Not Listed
Canada(DSL/NDSL): Not Listed
Japan: Not Listed
Korea: Not Listed
Australia: Not Listed
New Zealand: Not Listed
China: Not Listed
Philippines: Not Listed
Switzerland: Not Listed

New Zealand GHS Classification: Non classificato da questo paese.

Japan GHS Classification: Non classificato da questo paese.

Korea (MOL) GHS Classification: Non classificato da questo paese.

Australia GHS Classification: Non classificato da questo paese.

Taiwan GHS Classification: Non classificato da questo paese.

Indonesia GHS Classification: Non classificato da questo paese.

SARA 313:
15OTHREGS050
15SARAH030
15SARAH020
15SARAP020
15SARAP030

15.2. Chemical safety assessment
Not applicable.
## Full text of R phrases in Section 3

<table>
<thead>
<tr>
<th>R Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

## Legend of abbreviations:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference on Governmental Industrial Hygienists.</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service.</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Domestic Substances List/Non-Domestic Substances List.</td>
</tr>
<tr>
<td>EC</td>
<td>European Community.</td>
</tr>
<tr>
<td>EEC</td>
<td>European Economic Community.</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European Inventory of Existing Commercial chemical Substances.</td>
</tr>
<tr>
<td>EINECS</td>
<td>European List of Notified Chemical Substances.</td>
</tr>
<tr>
<td>EU</td>
<td>European Union.</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System.</td>
</tr>
<tr>
<td>LC</td>
<td>Lethal concentration.</td>
</tr>
<tr>
<td>LD</td>
<td>Lethal dose.</td>
</tr>
<tr>
<td>MOL</td>
<td>Ministry of Labor.</td>
</tr>
<tr>
<td>NEMA</td>
<td>National Emergency Management Agency.</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute of Occupational Safety and Health.</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicological Program.</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible exposure limit.</td>
</tr>
<tr>
<td>RQ</td>
<td>Reportable quantity.</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold limit value.</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System.</td>
</tr>
</tbody>
</table>

### 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.

**Revision Date:** Jan 08, 2011  
**Original Date of Issue:** 2/1/1993  
**Issued By:** Regulatory Management Department  
**Revision Details:** Revised in all sections to GHS format.