## 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>3,5-Dimethylpiperidine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synonyms:</strong></td>
<td>3,5-Lupetidine</td>
</tr>
<tr>
<td><strong>Chemical Abstracts Registry No:</strong></td>
<td>35794-11-7</td>
</tr>
<tr>
<td><strong>REACH Registration Number:</strong></td>
<td>01-2120742591-56-0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.2. Relevant identified uses of the substance or mixture and uses advised against</th>
</tr>
</thead>
<tbody>
<tr>
<td>chemical intermediate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.3. Details of the supplier of the safety data sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertellus LLC</td>
</tr>
<tr>
<td>201 North Illinois Street, Suite 1800</td>
</tr>
<tr>
<td>Indianapolis, Indiana 46204 USA</td>
</tr>
<tr>
<td>1-800-223-0453</td>
</tr>
</tbody>
</table>

**Only Representative for EU REACH Registration:**

Vertellus Specialties UK Ltd.
Seal Sands Road, Seal Sands
Middlesbrough, TS2 1UB
England
Phone: +44 1642 546 546

e-mail Address: sds@vertellus.com

<table>
<thead>
<tr>
<th>1.4. Emergency telephone number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vertellus:</strong> 1-800-223-0453</td>
</tr>
<tr>
<td><strong>CHEMTREC (USA):</strong> +1-800-424-9300 (collect calls accepted)</td>
</tr>
<tr>
<td><strong>CHEMTREC (International):</strong> +1-703-527-3887 (collect calls accepted)</td>
</tr>
<tr>
<td><strong>NRCC (China):</strong> +86 25 85477110</td>
</tr>
</tbody>
</table>

### SECTION 2: Hazards identification

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Liquids Category 3</td>
</tr>
<tr>
<td>Serious Eye Damage Category 1</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation Category 1C</td>
</tr>
<tr>
<td>Acute Toxicity Inhalation Vapour Category 3</td>
</tr>
<tr>
<td>Acute Toxicity Dermal Category 3</td>
</tr>
<tr>
<td>Acute Toxicity Oral Category 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2. Label elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Symbols (Pictogram):</td>
</tr>
</tbody>
</table>

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**Signal Word:** Danger

**Hazard Precautions:**
- H226 - Flammable liquid and vapour.
- H314 - Causes severe skin burns and eye damage.
- H331 - Toxic if inhaled.
- H301 - Toxic if swallowed.
- H311 - Toxic in contact with skin.

**Prevention Precautionary Statements:**
- P210 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
- P240 - Ground/bond container and receiving equipment.
- P241 - Use explosion-proof electrical/ventilating/lighting/telecommunication/computer/ equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 - Wash hands thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Precautionary Statements:**
- P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 - Immediately call a POISON CENTER or doctor/physician.
- P321 - Specific treatment (see supplemental information on this label).
- P363 - Wash contaminated clothing before reuse.
- P370+P378 - In case of fire: Use dry chemical powder for extinction.

**Storage Precautionary Statements:**
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- P405 - Store locked up.

**Disposal Precautionary Statements:**
- P501 - Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

#### 2.3. Other hazards

**Other Hazards:** PBT/vPvB assessment: Not applicable.

---

**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 (weight %)</th>
<th>EC Number</th>
<th>CLP Inventory/Annex VI</th>
<th>EU CLP Classification (1272/2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,5-Dimethylpiperidine</td>
<td>35794-11-7</td>
<td>~ 100</td>
<td>252-730-6</td>
<td>Not listed.</td>
<td>Eye Dam. 1; H318 Flam. Liq. 3; H226 Skin Corr. 1C; H314 Acute Tox. 3; H311 Acute Tox. 3; H331 Acute Tox. 3; H301</td>
</tr>
</tbody>
</table>

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

**Skin Contact:** Remove contaminated clothing and continue flushing with water. Wash exposed area twice with soap and water. The exposed area should be examined by medical personnel if irritation or pain persists after the area has been washed.

**Eye Contact:** Rinse eyes immediately with large amounts of water for at least 15 minutes, occasionally lifting the eyelids. Remove contact lenses if present and easy to do. Get medical attention.

**Inhalation:** Remove from exposure. If not breathing, give artificial respiration and call a physician.

**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:** 3,5-Dimethylpiperidine is severely irritating to skin and eyes on contact. This material is readily absorbed through the skin and is considered toxic via oral and dermal exposure. Vapors may be extremely irritating to the respiratory tract and eyes. High vapor concentrations may produce weakness, dizziness, headache, nausea, vomiting, labored breathing, increased heart rate and/or elevated blood pressure. Extended exposure (i.e., via contact with saturated clothing) may lead to irritation, skin burns and/or systemic poisoning, with symptoms similar to those above.

**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:** Water fog, Foam, Carbon dioxide, Dry chemical. Water may be ineffective as an extinguishing media; use water to cool and dilute from as far a distance as possible.

5.2. Special hazards arising from the substance or mixture

**Hazardous Products of Combustion:** Toxic vapors may be released upon thermal decomposition (cyanides, nitrogen oxides, carbon monoxide).

**Potential for Dust Explosion:** Not applicable.

**Special Flammability Hazards:** Not applicable.

5.3. Advice for firefighters

**Basic Fire Fighting Guidance:** Wear self-contained breathing apparatus and full protective clothing (i.e., Bunker gear). Skin and eye contact should be avoided. Normal fire fighting procedures may be used.

SECTION 6: Accidental release measures
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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

Remove all ignition sources. Ventilate the area of spill or leak. Wear protective equipment during clean-up. For large spills, the area may require diking to contain the spill. Material can then be collected (eg., suction) for later disposal. For small spills, use suitable absorbent material and collect for later disposal. After collection of material, flush area with water. Do not allow the spilled product to enter public drainage system or open waterways. Dispose of the material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws.

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: Maintain dry, ventilated conditions for storage. Protect containers against physical damage. Outside or detached storage is preferable. Inside storage should be in standard flammable liquids storage room or cabinet. Keep away from strong acids and oxidizing agents.

Dangerous Incompatibility Reactions: Avoid contact with strong acids 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

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SAFETY DATA SHEET

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: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary. Chemical goggles or safety glasses (EN166) should be worn at all times; use face shields as conditions warrant. Neoprene or PVC-coated gloves (EN374). Impervious clothing and boots.

Respirator Caution: Observe OSHA regulations for respirator use (29 CFR 1910.134) or equivalent guidance. Air-purifying respirators must not be used in oxygen-deficient atmospheres.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance, State &amp; Odor</td>
<td>Liquid with an ammonia-like odor.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Estimated 5 MMHG @ 25°C</td>
</tr>
<tr>
<td>Specific Gravity or Density</td>
<td>0.828</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>289°F (143°C) @ 760 mm Hg</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Slightly soluble; approx 2.5% @ 25°C</td>
</tr>
<tr>
<td>pH</td>
<td>No data available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flash Point and Method</td>
<td>89°F (31°C) Tag Closed Cup</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not explosive.</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Density (air = 1)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Freezing / Melting Point</td>
<td>No data available.</td>
</tr>
<tr>
<td>Octanol / Water Coefficient</td>
<td>Log Pow = 2.02</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>No data available.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not an oxidizer.</td>
</tr>
</tbody>
</table>

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
Avoid static discharge and uncontrolled exposure to high temperatures.

10.5. Incompatible materials
Avoid contact with strong acids and oxidizing agents.

10.6. Hazardous decomposition products
Toxic vapors may be released upon thermal decomposition (cyanides, nitrogen oxides, carbon monoxide).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Oral LD<sub>50</sub>: 82 mg/ kg (rat)
Acute Dermal LD<sub>50</sub>: 400 mg/kg (rabbit)
Acute Inhalation LC<sub>50</sub>: > 1323 ppm (4hr, rat)

Skin Irritation: Corrosive to skin.
Eye Irritation: Corrosive to eyes.
Skin Sensitization: No data available
Mutagenicity: No data available.
Reproductive / Developmental Toxicity: 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.

Target Organs: None known
Aspiration Hazard: Not 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
3,5-Dimethylpiperidine is severely irritating to skin and eyes on contact. This material is readily absorbed through the skin and is considered toxic via oral and dermal exposure. Vapors may be extremely irritating to the respiratory tract and eyes. High vapor concentrations may produce weakness, dizziness, headache, nausea, vomiting, labored breathing, increased heart rate and/or elevated blood pressure. Extended exposure (i.e., via contact with saturated clothing) may lead to irritation, skin burns and/or systemic poisoning, with symptoms similar to those above. Delayed Effects: None known.

Additive or Synergistic effects: None known.

SECTION 12: Ecological information

12.1. Toxicity
No data available.

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12.2. Persistence and degradability
Estimates from environmental models suggest that this material is readily biodegradable and will not persist in the environment.

12.3. Bioaccumulative potential
No data available

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment
Not applicable.

12.6. Other adverse effects
No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
US EPA Waste Number: D001
Waste Classification: Ignitable.

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.

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
UN1992

14.2. UN proper shipping name
Flammable liquid, toxic, n.o.s. (3,5-Dimethylpiperidine)

14.3. Transport hazard class(es)
3, 6.1

14.4. Packing group
PG III

14.5. Environmental hazards
Not applicable

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>
<th>EC / list No.:</th>
<th>Country</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA TSCA</td>
<td>Listed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada(DSL/NDSL)</td>
<td>NDSL</td>
<td></td>
<td>Japan</td>
<td>(5)-769</td>
</tr>
<tr>
<td>Korea</td>
<td>Not listed.</td>
<td></td>
<td>Australia</td>
<td>Not listed.</td>
</tr>
<tr>
<td>China</td>
<td>Not listed.</td>
<td></td>
<td>Philippines</td>
<td>Not listed.</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Listed</td>
<td></td>
<td>New Zealand</td>
<td>Not listed.</td>
</tr>
</tbody>
</table>

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German Water Hazard Classification: WGK 1 – low hazard to waters (self-classification)
SARA 313: Not listed.
Reportable Quantities: Not applicable.
State Regulations: Not applicable.

HMIS IV:
- HEALTH: 3
- FLAMMABILITY: 3
- PHYSICAL HAZARD: 0

NFPA:
- 3
- 3
- 0

15.2. Chemical safety assessment
A chemical safety assessment has not been performed on this substance.

SECTION 16: Other information

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.

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.

Revision Date: 20 Dec 2018
Original Date of Issue: 3 April 1985

Issued by: Regulatory Management Department
Email: SDS@Vertellus.com

Revision Details:
Added REACH registration number and revised sections 4, 6, 8, 9, 11, 12 and 14 to be consistent with new classification and registration dossier.

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