

## SAFETY DATA SHEET

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

**1.1. Product identifier** **2,6-Lutidine**  
**Synonyms:** 2,6-Dimethylpyridine  
**Chemical Abstracts Registry No:** 108-48-5  
**REACH Registration Number:** Not applicable.

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

chemical intermediate

**1.3. Details of the supplier of the safety data sheet**

Vertellus LLC  
201 North Illinois Street, Suite 1800  
Indianapolis, Indiana 46204 USA  
+1-317-247-8141

Vertellus Specialty Chemicals (Nantong) Co., Ltd. #9  
Shengkai Road NETDZ  
Nantong, Jiangsu, China. 226009  
86-513-83591318

**e-mail Address:** sds@vertellus.com

**1.4. Emergency telephone number** **Vertellus:** +1-317-247-8141  
**CHEMTREC (USA):** +1-800-424-9300 (collect calls accepted)  
**CHEMTREC (International):** +1-703-527-3887 (collect calls accepted)  
**NRCC (China):** +86 532 83889090

### SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture** (According to Regulation (EC) No 1272/2008, 29 CFR 1910.1200 and the Globally Harmonized System)

Flammable Liquids Category 3  
Serious Eye Irritation Category 2  
Skin Irritation Category 2  
Acute Toxicity Oral Category 4

**2.2. Label elements**

**Hazard Symbols (Pictogram):**



**Signal Word:**

Warning

**Hazard Precautions:**

H226 - Flammable liquid and vapour.  
H302 - Harmful if swallowed.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.

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- 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.  
P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.
- First Aid Precautionary Statements:** P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances or 3.2. Mixtures

Ingredient	CAS Number	Concentration (weight %)	EC Number	CLP Inventory/ Annex VI	EU CLP Classification (1272/2008)
2,6-Lutidine	108-48-5	~ 100	203-587-3	Not applicable.	Flam. Liq. 3; H226 Eye Irrit. 2; H319 Skin Irrit. 2; H315 Acute Tox. 4; H302

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:** Immediately flush with water for 15 minutes. Wash the contaminated skin with soap and water. If irritation develops, call a physician.
- Eye Contact:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.
- Inhalation:** Remove from exposure. If not breathing, give artificial respiration and call a physician.
- Ingestion:** If swallowed, contact physician or poison control center immediately.

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

- Acute:** 2,6-Lutidine is mildly irritating to skin and severely irritating to eyes. Vapors may be irritating to the respiratory tract. May be readily absorbed through the skin. Extended exposure (e.g. from saturated clothing) may lead to systemic poisoning. Symptoms may include headache, dizziness, drowsiness, nausea, and other effects. Symptoms seen after inhalation overexposures are expected to be essentially the same as those listed previously.
- Delayed Effects:** None known.

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### 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:** Foam, carbon dioxide, dry chemical, water fog

### 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:** Severe explosion hazard in the form of vapor (within flammability limits) when exposed to heat, flame or static discharge.

### 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

### 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 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 (eg., 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.

### 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.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**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.

#### 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.

**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

**Occupational Exposure Limits:** Not established.

#### 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, nitrile or PVC-coated gloves (Standard EN 374). Safety glasses or chemical goggles (Standard EN166). Chemical resistant clothing (Standard EN368). 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.

**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.

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Appearance, State & Odor (ambient temperature):	straw-colored liquid with a characteristic odor		
Molecular Formula:	C <sub>7</sub> H <sub>9</sub> N	Molecular Weight:	107.16
Vapor Pressure:	5.65 mm Hg @ 25°C	Evaporation Rate:	Not determined
Specific Gravity or Density:	0.923	Vapor Density (air = 1):	3.70
Boiling Point:	144 °C	Freezing / Melting Point:	-6 °C
Solubility in Water:	27 - 30% @ 34 - 45°C	Octanol / Water Coefficient:	1.68
pH:	pKa = 6.6 @ 25°C	Odor Threshold:	No data available.
Viscosity:	No data available.	Autoignition Temperature:	No data available.
Flash Point and Method:	99°F (37°C) Tag Closed Cup	Flammable Limits:	No data available.
Flammability (solid, gas):	Not applicable.	Decomposition Temperature:	No data available.
Explosive Properties:	Not explosive.	Oxidizing Properties:	Not an oxidizer.

### SECTION 10: Stability and reactivity

<u>10.1. Reactivity</u>	Not classified as dangerously reactive.
<u>10.2. Chemical stability</u>	Stable
<u>10.3. Possibility of hazardous reactions</u>	Will not autopolymerize.
<u>10.4. Conditions to avoid</u>	Avoid static discharge and uncontrolled exposure to high temperatures.
<u>10.5. Incompatible materials</u>	Avoid contact with strong acids and oxidizing agents.
<u>10.6. Hazardous decomposition products</u>	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> :	Oral LD <sub>50</sub> (rat) = 457 mg/kg	2,6-Lutidine
Acute Dermal LD <sub>50</sub> :	Dermal LD <sub>50</sub> (guinea pig) = 2500 mg/kg Dermal LD <sub>50</sub> (rabbit) > 1000 mg/kg	2,6-Lutidine
Acute Inhalation LC <sub>50</sub> :	No data available.	
Skin Irritation:	Moderately irritating to skin.	

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<b>Eye Irritation:</b>	Moderately irritating to eyes.
<b>Skin Sensitization:</b>	Not expected to be a sensitizer.
<b>Mutagenicity:</b>	No data available.
<b>Reproductive / Developmental Toxicity:</b>	No data available.
<b>Carcinogenicity:</b>	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.
<b>Target Organs:</b>	As a class, some pyridines have been shown to be hepatotoxins (cause liver damage) with chronic overexposure by any route.
<b>Aspiration Hazard:</b>	No data available.
<b>Primary Route(s) of Exposure:</b>	Skin contact and absorption, eye contact, and inhalation. Ingestion is not likely to be a primary route of exposure.
<b>Most important symptoms and effects, both acute and delayed</b>	2,6-Lutidine is mildly irritating to skin and severely irritating to eyes. Vapors may be irritating to the respiratory tract. May be readily absorbed through the skin. Extended exposure (e.g. from saturated clothing) may lead to systemic poisoning. Symptoms may include headache, dizziness, drowsiness, nausea, and other effects. Symptoms seen after inhalation overexposures are expected to be essentially the same as those listed previously. Delayed Effects: None known.
<b>Additive or Synergistic effects:</b>	None known.
<b>Additional Toxicity Information:</b>	2,6-Lutidine did not meet the criteria for Class 8 (corrosive) under DOT testing requirements.

### SECTION 12: Ecological information

<b><u>12.1. Toxicity</u></b>	EC <sub>50</sub> <i>Oncorhynchus mykiss</i> (rainbow trout) > 5000 µg/L	2,6-Lutidine
<b><u>12.2. Persistence and degradability</u></b>	Readily biodegradable.	
<b><u>12.3. Bioaccumulative potential</u></b>	Not expected to bioconcentrate in aquatic species.	
<b><u>12.4. Mobility in soil</u></b>	This material is expected to have moderate mobility in soil. It absorbs to most soil types.	
<b><u>12.5. Results of PBT and vPvB assessment</u></b>	This substance is not a PBT or vPvB.	

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

<b>US EPA Waste Number:</b>	D001
<b>Waste Classification: (per US regulations)</b>	Ignitable.
<b>Waste Disposal:</b>	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

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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	UN1993	14.2. UN proper shipping name	Flammable liquid, n.o.s. (2,6-Lutidine)
14.3. Transport hazard class(es)	3	14.4. Packing group	PG III
14.5. Environmental hazards	Not applicable.		
NA Emergency Guidebook Numbers:	128	IMDG EMS:	S-E; F-E
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code			Not applicable.

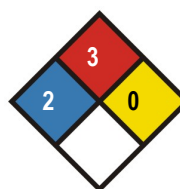
### SECTION 15: Regulatory information

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

<b>Chemical Inventory Lists:</b>	<b>Status:</b>		
USA TSCA:	Listed	EINECS/ELINCS:	Listed (203-587-3)
Canada (DSL/NDSL):	Listed (DSL)	Japan ENCS:	Listed ((5)-712)
Korea:	Listed (KE-11843)	Australia:	Listed
China:	Listed	Philippines:	Listed
Taiwan:	Listed	New Zealand:	Listed
German Water Hazard Classification:	ID Number 8300, hazard class 3 - severe hazard to waters (2,6-Dimethylpyridin)		
SARA 313:	Not applicable.		
Reportable Quantities:	Not applicable.		
State Regulations:	Not applicable.		

HMIS IV:	HEALTH	2
	FLAMMABILITY	3
	PHYSICAL HAZARD	0

NFPA:



### 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.  
CFR = Code of Federal Regulations.  
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.

LD = Lethal Dose.  
NFPA = National Fire Protection Association.  
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.

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*EU = European Union.*  
*GHS = Globally Harmonized System.*  
*LC = Lethal Concentration.*

*SARA = Superfund Amendments and Reauthorization Act of 1986.*  
*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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