

## SAFETY DATA SHEET

(according to (EC) 1907/2006)

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

**1.1. Product identifier** 3-Picoline-N-Oxide

**Synonyms:** 3-Methylpyridine-1-oxide

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

Pharmaceutical intermediate

**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 Fax Number:** (44) 1642-546068  
**E-Mail Address:** msds@vertellus.com

**Non-Emergency Phone Number:** 317-247-8141

**1.4. Emergency telephone number**

Vertellus: (44) 1642-546546

CHEMTREC (USA): (800) 424-9300

(collect calls accepted); (Int'l): (703) 527-3887

(collect calls accepted; 011 prefix not needed)

### SECTION 2: Hazards identification

HMIS Rating	
HEALTH	1
FLAMMABILITY	0
REACTIVITY	0

**2.1. Classification of the substance or mixture**

**(According to Regulation (EC) No 1272/2008)**

Serious Eye Damage/Eye Irritation Category 2

Skin Corrosion/Irritation Category 2

**Signal Word:**

Warning

**Hazard Precautions:**

H319 - Causes serious eye irritation.

H315 - Causes skin irritation.

**2.2. Label elements**

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Hazard Symbols (Pictogram):



### Prevention Precautions:

P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P264 - Wash hands thoroughly after handling.

### First Aid Precautions:

P337+P313 - If eye irritation persists: Get medical advice/attention.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P362 - Take off contaminated clothing and wash before reuse.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P321 - Specific treatment (see supplemental information on this label).  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

### 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: Xi  
Risk Phrases: R36/38: Irritating to eyes and skin.  
Safety Phrases: S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S37/39: Wear suitable gloves and eye/face protection.

### 2.3. Other hazards

**Signs and Symptoms of Potential Overexposure:** See Section 11 for further toxicological information. Irritation on skin, eyes, upper respiratory tract.  
**Primary Route(s) of Exposure:** Skin contact and absorption, eye contact, ingestion, inhalation.  
**Medical Conditions Aggravated by Exposure:** No data found

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances or 3.2. Mixtures

Ingredient	CAS Number	Concentration (%)	EINECS / ELINCS	EU Symbol	Risk Phrases
3-Picoline-N-oxide	1003-73-2	99	213-714-4	Xi	R36/38

**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

#### 4.1. Description of first aid measures

<b>Skin Contact:</b>	May cause skin irritation. Remove contaminated clothing and continue flushing with water.
<b>Eye Contact:</b>	Flush eyes with water for at least 15 minutes; if irritation occurs seek medical attention. Can cause irritation.
<b>Inhalation:</b>	May cause irritation to upper respiratory system
<b>Ingestion:</b>	May be harmful by ingestion Do NOT induce vomiting. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice.

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

<b>Acute:</b>	See Section 11 for further toxicological information. Irritation on skin, eyes, upper respiratory tract.
<b>Delayed Effects:</b>	None known.

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

<b>Thermal Exposure:</b>	Not applicable.
<b>Note to Physician:</b>	No additional first aid information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Appropriate Extinguishing Media:** Water fog Carbon dioxide Dry chemical Foam

#### 5.2. Special hazards arising from the substance or mixture

<b>Hazardous Products of Combustion:</b>	Combustion will produce carbon monoxide, carbon dioxide and oxides of nitrogen.
<b>Potential for Dust Explosion:</b>	not available
<b>Special Flammability Hazards:</b>	Not applicable.

#### 5.3. Advice for firefighters

<b>Basic Fire Fighting Guidance:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Flammability Classification (OSHA):</b>	Not applicable.

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NFPA Rating



### 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.

#### 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:	Vacuum or sweep up material and place in a disposal container. Contain spilled liquid with sand clay. DO NOT use combustible materials such as sawdust.
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:	Avoid prolonged or repeated contact with material. Avoid contact with eyes, skin, and clothing.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage Precautions & Recommendations:	Store in a tightly closed container. Store in a cool dry place.
Dangerous Incompatibility Reactions:	acid anhydrides acid chlorides Acids
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



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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:** Ensure routes to drains or water courses are sealed

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

**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):	Tan Solid Tan solid		
Molecular Formula:	C6H7NO	Molecular Weight:	109.13
Vapor Pressure:	Not applicable	Evaporation Rate:	Not determined
Specific Gravity or Density:	Not applicable	Vapor Density (air = 1):	Not applicable
Boiling Point:	150 °C	Freezing / Melting Point:	38 - 40 °C
Solubility in Water:	Soluble Soluble in a wide range of polar solvents	Octanol / Water Coefficient:	Not available.
pH:	Not established	Odor Threshold:	N
Viscosity:	Not applicable	Autoignition Temperature:	Not available.
Flash Point and Method:	Est 290°F (> 109°C) (TOC)	Flammable Limits:	Not established (LEL) – Not established (UEL)

#### 9.2. Other information

Not applicable.

### SECTION 10: Stability and reactivity

**10.1. Reactivity** Not classified as dangerously reactive.

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<u>10.2. Chemical stability</u>	Stable
<u>10.3. Possibility of hazardous reactions</u>	Has not been reported
<u>10.4. Conditions to avoid</u>	None known
<u>10.5. Incompatible materials</u>	acid anhydrides acid chlorides Acids
<u>10.6. Hazardous decomposition products</u>	Oxides of carbon nitrogen

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute Oral LD <sub>50</sub> :	Not available.
Acute Dermal LD <sub>50</sub> :	Not available.
Acute Inhalation LC <sub>50</sub> :	Not available.
Skin Irritation:	Irritating to the skin.
Skin Sensitization:	No data
Eye Irritation:	Causes eye irritation.
Target Organs:	No data available.
Carcinogenicity:	No evidence of mutagenic effects
Teratogenicity:	No data available.
Reproduction:	No evidence of teratological effects
Neurotoxicity:	No data available.
Mutagenicity:	No evidence of mutagenic effects

### SECTION 12: Ecological information

<u>12.1. Toxicity</u>	Not available.
<u>12.2. Persistence and degradability</u>	No data Not available.
<u>12.3. Bioaccumulative potential</u>	No data
<u>12.4. Mobility in soil</u>	No data
<u>12.5. Results of PBT and vPvB assessment</u>	Not available.
<u>12.6. Other adverse effects</u>	Not available. Not available.

### SECTION 13: Disposal considerations



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### 13.1. Waste treatment methods

US EPA Waste Number:	Not applicable
Waste Classification: (per US regulations)	Dispose of by incineration following Federal, State, Local, or Provincial 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

<u>14.1. UN number</u>	Not applicable
<u>14.2. UN proper shipping name</u>	Chemicals, n.o.s. (3-Picoline-N-Oxide)
<u>14.3. Transport hazard class(es)</u>	Not applicable
<u>14.4. Packing group</u>	Not applicable
<u>14.5. Environmental hazards</u>	Not applicable
<u>14.6. Special precautions for user</u>	Not available.
NA Emergency Guidebook Numbers:	Not applicable
	IMDG EMS: Not applicable
<u>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</u>	Not applicable.

### SECTION 15: Regulatory information

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

OSHA Hazards:	Irritant. Not applicable.
WHMIS Classification:	Class D, Division 2, Subdivision B: Irritant.
Chemical Inventory Lists:	<b>Status</b>
TSCA:	Present
EINECS:	213-714-4
Canada(DSL/NDSL):	NDSL
Japan:	Not Listed
Korea:	Not Listed
Australia:	Not Listed
New Zealand:	Present
China:	Not Listed
Philippines:	Present



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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:	Not applicable.

### 15.2. Chemical safety assessment

Not applicable.

## SECTION 16: Other information

Full text of R phrases in Section 3: R36/38: Irritating to eyes and skin.





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### Legend of abbreviations:

ACGIH = American Conference on Governmental Industrial Hygienists.  
CAS = Chemical Abstracts Service.  
CERCLA = Comprehensive Environmental, Response, Compensation and Liability Act (1990).  
CFR = Code of Federal Regulations.  
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.  
NFPA = National Fire Protection Association.  
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.  
SARA = Superfund Amendments and Reauthorization Act of 1986.  
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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