



## SAFETY DATA SHEET

(according to (EC) 1907/2006)

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

#### 1.1. Product identifier

Niacin (Nicotinic Acid)

##### Synonyms:

Nicotinic Acid

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

vitamin

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

Vertellus Integrated Pyridines LLC  
201 North Illinois Street, Suite 1800,  
Indianapolis, IN 46204  
317-247-8141

e-mail Address: [msds@vertellus.com](mailto:msds@vertellus.com)

#### 1.4. Emergency telephone number

Vertellus: 1-317-247-8141

CHEMTREC (USA): 1-800-424-9300 (collect calls accepted); (Int'l): 1-703-527-3887; China: 86 25 85477110

### SECTION 2: Hazards identification

#### HMIS Rating

HEALTH 1

FLAMMABILITY 1

REACTIVITY 0

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

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

Serious Eye Damage/Eye Irritation Category 2

(According to Directive 67/548/EEC)

Symbol: Xi

Risk Phrases: R36: Irritating to the eyes.

Safety Phrases: S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

#### 2.2. Label elements

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Hazard Symbols (Pictogram):



**Signal Word:**  
Warning

**Hazard Precautions:**  
H319 - Causes serious eye irritation.

**Prevention Precautionary Statements:**  
P264 - Wash hands thoroughly after handling.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Precautionary Statements:**  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 - If eye irritation persists: Get medical advice/attention.

**Storage Precautionary Statements:**  
Not required.

**Disposal Precautionary Statements:**  
Not required.

### 2.3. Other hazards

**Signs and Symptoms of Potential Overexposure:** May cause irritation to the eyes on contact; may cause mild skin irritation in sensitive individuals. Niacin may be irritating to the respiratory tract, if the dust is inhaled.

**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 the following conditions may be at increased risk from overexposure to this material: impaired liver function or disease, active peptic ulcer, diabetes, gout, gallbladder disease, glaucoma or skin disease.

**Other Hazards:** WARNING! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR (DURING PROCESSING).

## SECTION 3: Composition/information on ingredients

### 3.1. Substances or 3.2. Mixtures

Ingredient	CAS Number	Concentration (%)	EINECS / ELINCS	CLP Inventory/ Annex VI	EU DSD Classification (67/548/EEC)	EU CLP Classification (1272/2008)
NIACIN (NICOTINIC ACID)	59-67-6	~ 100	200-441-0	Not listed.	Xi R36	Eye Irrit. 2; H319

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**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

- Skin Contact:** 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. GET MEDICAL ATTENTION.
- Inhalation:** Remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. Keep affected person warm and at rest. GET MEDICAL ATTENTION.
- Ingestion:** If swallowed, do not induce vomiting. Rinse mouth and administer up to one glass of water for dilution if the patient can swallow, has a strong gag reflex, and does not drool. Give oxygen if respiration is shallow. GET MEDICAL ATTENTION. Do not give anything by mouth to an unconscious person.

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

- Acute:** May cause irritation to the eyes on contact; may cause mild skin irritation in sensitive individuals. Niacin may be irritating to the respiratory tract, if the dust is inhaled.
- 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:** Water fog, foam, carbon dioxide, or dry chemical

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

- Hazardous Products of Combustion:** Combustion will produce carbon monoxide, carbon dioxide and oxides of nitrogen.
- Potential for Dust Explosion:** Niacin presents a significant dust explosion hazard unless properly handled. Maximum Explosion Pressure = 10.1 bar; K<sub>st</sub> = 178 bar.m/s; Minimum Ignition Energy = 3 - 6 mJ; Minimum Explosible Concentration ~ 30 g/m<sup>3</sup>.  
Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.  
Refer to European standards: EN1127-1, EN14491, EN14797, EN14373, and EN15089 for safe handling of and controlling explosive atmospheres in the workplace.
- Special Flammability Hazards:** This product is an organic solid. As such, in its finely divided form, this product has the potential to present a dust explosion hazard under certain conditions. Please review the dust explosion data enclosed in this section. Handle this product in a manner that prevents dust generation and accumulation, and refer to National Fire Protection Association (NFPA) Standard 654 for further

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information on prevention of dust explosions.

### 5.3. Advice for firefighters

**Basic Fire Fighting Guidance:**

Wear self-contained breathing apparatus and protective clothing. Normal firefighting procedures may be used.

Explosion: Avoid generating dust. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

**Flammability Classification (OSHA):**

Organic solid -- may present a dust explosion hazard under some conditions.

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:**

Remove all ignition sources. Ventilate the area of spill or leak. Wear protective equipment during clean-up. Material can then be collected 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. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Nonsparking tools should be used.

**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



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**Precautions for Unique Hazards:** This material may present a dust explosion hazard in solid form and is sensitive to ignition by electrostatic discharge. Maintain areas below flammable vapor / explosive dust concentrations.

**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. To reduce the risk of dust explosion, the recommendations for facility and process design, control of ignition sources and fugitive dust, fire protection, training and maintenance outlined in "NFPA 654: Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids" should be followed. Implementing a housekeeping program to control the accumulation of dust on work surfaces is critical to reducing the risk of catastrophic secondary dust explosions.

**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. Keep away from strong acids, strong bases and oxidizing agents. Do not store with poisons. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

**Dangerous Incompatibility Reactions:** Avoid strong acids, strong bases, 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: 15 mg/cubic meter (total dust); 5 mg/cubic meter (respirable fraction) 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:** For handling small quantities outside a laboratory setting: NIOSH-approved full-face chemical cartridge respirator with organic vapor cartridges and HEPA filters; impervious gloves (nitrile or neoprene), poly-coated Tyvek<sup>®</sup> coveralls, rubber boots, and face shield as necessary. For handling large quantities: supplied air breathing equipment; impervious gloves (nitrile or neoprene), Saranex<sup>®</sup> coveralls, rubber boots, and face shield as necessary. Laboratory handling should be done per prudent, safe laboratory practices, taking extra precautions to prevent inhalation or skin/eye contact.

**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. It is recommended that all dust control equipment such as local exhaust ventilation and



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Other Engineering Controls:	material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
Thermal Hazards:	All appropriate engineering controls should be used to minimize exposure potential. Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only appropriately classified electrical equipment and powered industrial trucks.
Additive or Synergistic Effects:	Not applicable.
	None known.

### SECTION 9: Physical and chemical properties

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

Appearance, State & Odor (ambient temperature):	White powder or granules, with essentially no odor.		
Molecular Formula:	C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	Molecular Weight:	123.11
Vapor Pressure:	< 1.00 mm Hg @ 25°C	Evaporation Rate:	Not determined
Specific Gravity or Density:	1.473	Vapor Density (air = 1):	Not available
Boiling Point:	> 238 °C	Freezing / Melting Point:	236.6 °C
Solubility in Water:	18 grams/liter (25 deg. C)	Octanol / Water Coefficient:	log Kow = 0.36
pH:	3.5 (10 g/L aqueous solution)	Odor Threshold:	Not available
Viscosity:	No data available.	Autoignition Temperature:	580°C
Flash Point and Method:	380°F (193°C) Tag Open Cup	Flammable Limits:	30 g/m <sup>3</sup> (LEL) – Not determinable (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	Will not occur.
10.4. Conditions to avoid	Avoid static discharge and generation of dust.
10.5. Incompatible materials	Avoid strong acids, strong bases, and oxidizing agents.
10.6. Hazardous decomposition products	Combustion will produce carbon monoxide, carbon dioxide and oxides of nitrogen.

### SECTION 11: Toxicological information

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### 11.1. Information on toxicological effects

<b>Acute Oral LD<sub>50</sub>:</b>	Oral LD50 (mouse) = 3720 mg/kg Oral LD50 (rabbit) = 4550 mg/kg	NIACIN (NICOTINIC ACID)
<b>Acute Dermal LD<sub>50</sub>:</b>	Dermal LD50 (rat) > 2000 mg/kg	NIACIN (NICOTINIC ACID)
<b>Acute Inhalation LC<sub>50</sub>:</b>	No data available.	
<b>Skin Irritation:</b>	Non-irritating to skin.	
<b>Skin Sensitization:</b>	No data available.	
<b>Eye Irritation:</b>	Moderately irritating to eyes.	
<b>Target Organs:</b>	No organs known to be damaged from exposure to this product.	
<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>Teratogenicity:</b>	No data available.	
<b>Reproduction:</b>	No data available.	
<b>Neurotoxicity:</b>	No data available.	
<b>Mutagenicity:</b>	This material was tested and found to be non-mutagenic in the Ames assay and Mouse Micronucleus test. Equivocal test results occurred in the Unscheduled DNA Synthesis assay in rat primary hepatocytes.	

## SECTION 12: Ecological information

<b><u>12.1. Toxicity</u></b>	Aquatic LC50 <i>Oncorhynchus mykiss</i> (rainbow trout) = 520 mg/L	NIACIN (NICOTINIC ACID)
<b><u>12.2. Persistence and degradability</u></b>	Degrades under both aerobic and anaerobic conditions.	
<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 soluble in water. Its adsorption to soil and sediment should not be significant.	
<b><u>12.5. Results of PBT and vPvB assessment</u></b>	No data available.	
<b><u>12.6. Other adverse effects</u></b>	No data available.	

<b>German Water Hazard Classification:</b>	ID Number 1368, hazard class 1 - low hazard to waters
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**Component Name:**  
Nicotinsäure

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>US EPA Waste Number:</b>	Non-Hazardous
<b>Waste Disposal:</b>	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



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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. (Niacin)
<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>	Cannot be stored or shipped with TOXIC materials
NA Emergency Guidebook Numbers:	Not applicable
	IMDG EMS: Not applicable
<u>14.7. Transport in bulk according to Annex II of MARPOL73/78 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: Health: Irritant (eye). Physical: Not applicable.

WHMIS Classification: Class D, Division 2, Subdivision B: Irritant.

Chemical Inventory Lists:	Status
TSCA:	Present
EINECS:	200-441-0
Canada(DSL/NDL):	DSL
Japan:	(5)-731
Korea:	KE-29937
Australia:	Present
New Zealand:	Present
China:	Present
Philippines:	Present
Switzerland:	G-8523

New Zealand GHS Classification: Acute toxicity - Oral - Category 5: H303 May be harmful if swallowed. (Approval: HSR003773); Serious eye damage/eye Irritation - Category 2A: H319 Causes serious eye irritation. (Approval: HSR003773); Hazardous to aquatic environment - acute hazard - Category 3: H402 Harmful to aquatic life. (Approval: HSR003773)

Japan GHS Classification: Not classified by this country.





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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.  
Other Regulatory Listings: Not applicable.

Component Name:  
Not listed.

### 15.2. Chemical safety assessment

Not applicable.

## SECTION 16: Other information

Full text of R phrases in Section 3: R36: Irritating to the eyes.

### 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.



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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.

**Revision Date:** Mar 29, 2012

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**Issued By:** Regulatory Management Department

**Revision Details:** Revised sections 2, 5, 6, 7, and 8 to include combustible dust warnings and information.