

## Chemical Safety Data Sheet MSDS / SDS

## Nicotinic acid

Revision Date:2024-04-13 Revision Number:1

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

## Product identifier

Product name : Nicotinic acid  
CBnumber : CB0276607  
CAS : 59-67-6  
EINECS Number : 200-441-0  
Synonyms : NICOTINIC ACID,niacin

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

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

## Company Identification

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 400-158-6606

## SECTION 2: Hazards identification

## Classification of the substance or mixture

Eye irritation, Category 2

## Label elements

## Pictogram(s)

□□□□

Signal word : Danger

## Hazard statement(s)

H225 Highly Flammable liquid and vapour

H319 Causes serious eye irritation

H370 Causes damage to organs

## Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P311 Call a POISON CENTER or doctor/physician.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P337+P313 IF eye irritation persists: Get medical advice/attention.

#### **Prevention**

P264 Wash ... thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

#### **Response**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### **Storage**

none

#### **Disposal**

none

#### **Other hazards**

no data available

---

## SECTION 3: Composition/information on ingredients

### **Substance**

Product name	: Nicotinic acid
Synonyms	: NICOTINIC ACID,niacin
CAS	: 59-67-6
EC number	: 200-441-0
MF	: C6H5NO2
MW	: 123.11

---

## SECTION 4: First aid measures

### **Description of first aid measures**

#### **If inhaled**

Fresh air, rest.

#### **Following skin contact**

Rinse skin with plenty of water or shower.

#### **Following eye contact**

Rinse with plenty of water (remove contact lenses if easily possible).

#### **Following ingestion**

Rinse mouth. Give one or two glasses of water to drink.

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

**SYMPTOMS:** Symptoms of exposure to this compound include impaired liver function, dryness of the skin, anorexia, nausea, vomiting, diarrhea, activation of peptic ulcers, hepatic disease, hyperuricemia and circulatory collapse (after rapid intravenous injection). It may cause temporary flushing and a feeling of warmth, temporary headache, itching, tingling, skin rash and allergies. It may also cause burning of the skin, face and upper trunk and elevation of serum bilirubin. Other symptoms include mild irritation of upper respiratory tract and gastrointestinal disturbances. It may cause dyspepsia, hyperpigmentation, decrease in excretion of bromosulfophthalein, increase of plasma transaminase activities, incidence of acute gouty arthritis, acanthosis nigricans, hyperglycemia, increased vasodilation and cystoid edema of the macula. It may also cause furunculosis and other skin lesions, hypotension, abdominal cramps, mild diabetes and urticaria. Other symptoms include pruritus, toxic amblyopia, jaundice and decreased glucose tolerance. **ACUTE/CHRONIC HAZARDS:** This compound may cause mild irritation to the upper respiratory tract. When heated to decomposition it may emit toxic fumes of NO<sub>x</sub>. (NTP, 1992)

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

Immediate withdrawal of niacin is the primary treatment in acute toxicity. Symptoms should resolve over several hours with sequelae. Aspirin or nonsteroidal antiinflammatory drugs can be used for symptoms. For chronic toxicity treatment, niacin should be stopped and attention given to presenting symptoms and findings. Patients with significant hepatotoxicity may require intensive care monitoring and supportive care until liver function recovers. ... Treatment of rhabdomyolysis includes monitoring of renal function, urinary alkalization, and maintenance of urinary output.

---

## SECTION 5: Firefighting measures

### Extinguishing media

Fires involving this material can be controlled with a dry chemical, carbon dioxide or Halon extinguisher. A water spray may also be used. (NTP, 1992)

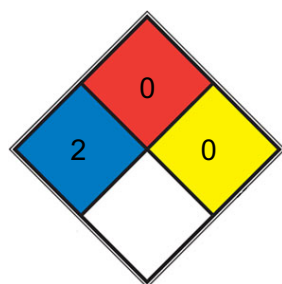
### Specific Hazards Arising from the Chemical

Flash point data for this chemical are not available; however, it is probably combustible. (NTP, 1992)

### Advice for firefighters

Use water spray, foam, powder, carbon dioxide.

### NFPA 704



■ HEALTH 2 Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. [diethyl ether](#), ammonium phosphate, iodine)

■ FIRE 0 Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)

REACT 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, [N2](#))

SPEC.

HAZ.

---

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

### Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

### Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

---

## SECTION 7: Handling and storage

### Precautions for safe handling

NO open flames. Prevent deposition of dust. Closed system, dust explosion-proof electrical equipment and lighting. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### Conditions for safe storage, including any incompatibilities

Store in an area without drain or sewer access. Separated from strong acids, bases and oxidants.

---

## SECTION 8: Exposure controls/personal protection

### Control parameters

#### Occupational Exposure limit values

Component	Nicotinic acid			
CAS No.	59-67-6			
	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Latvia	?	1	?	?

**Biological limit values**

no data available

**Exposure controls**

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

**Individual protection measures****Eye/face protection**

Wear safety goggles.

**Skin protection**

Protective gloves.

**Respiratory protection**

Avoid inhalation of dust.

**Thermal hazards**

no data available

**SECTION 9: Physical and chemical properties****Information on basic physicochemical properties**

Physical state	Powder
Colour	White to off-white
Odour	Odorless
Melting point/freezing point	236.6 °C.
Boiling point or initial boiling point and boiling range	Remarks:No boiling point determined. The substance sublimates at temperatures > 236.6 °C.
Flammability	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit	no data available
Flash point	193°C
Auto-ignition temperature	Remarks:No self-heating observed up to sublimation at ca. 250 °C.
Decomposition temperature	no data available
pH	2.7 (18g/l, H <sub>2</sub> O, 20°C)
Kinematic viscosity	no data available
Solubility	18g/l
Partition coefficient n-octanol/water	log Pow = -0.59. Temperature:25 °C.;log Pow = -2.34. Temperature:25 °C.
Vapour pressure	5.70X10 <sup>-6</sup> mm Hg at 25 deg C (est)
Density and/or relative density	1.473 g/cm <sup>3</sup> . Temperature:25 °C.
Relative vapour density	no data available
Particle characteristics	no data available

## SECTION 10: Stability and reactivity

### Reactivity

On combustion, forms toxic gases including nitrogen oxides. Reacts with oxidants, strong acids and bases.

### Chemical stability

Stable in air

### Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air. NICOTINIC ACID is incompatible with strong oxidizers. It is also incompatible with sodium nitrite. (NTP, 1992)

### Conditions to avoid

no data available

### Incompatible materials

Dust explosion. Avoid contact with strong acids, alkaline solutions and oxidizing agents.

### Hazardous decomposition products

When heated to decomposition it emits toxic fumes of nitroxides.

---

## SECTION 11: Toxicological information

### Acute toxicity

- Oral: LD50 - rat (male) - 5 210 mg/kg bw.
- Inhalation: LC50 - rat (male/female) - > 3.8 mg/L air (analytical).
- Dermal: LD50 - rat (male/female) - > 2 000 mg/kg bw.

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

### **STOT-single exposure**

The substance is mildly irritating to the eyes.

### **STOT-repeated exposure**

no data available

### **Aspiration hazard**

A nuisance-causing concentration of airborne particles can be reached quickly when dispersed, especially if powdered.

---

## **SECTION 12: Ecological information**

### **Toxicity**

Toxicity to fish: LC50 - *Salmo trutta* - 520 mg/L - 96 h.

Toxicity to daphnia and other aquatic invertebrates: EC50 - *Daphnia magna* - 77 mg/L - 48 h.

Toxicity to algae: EC50 - *Desmodesmus subspicatus* (previous name: *Scenedesmus subspicatus*) - 89.933 mg/L - 72 h.

Toxicity to microorganisms: EC10 - *Pseudomonas putida* - 88 mg/L - 16 h.

### **Persistence and degradability**

**AEROBIC:** In aqueous, aerobic soil suspensions containing mineral salts and a fertile garden soil inoculum, nicotinic acid was completely degraded after 2 to 4 days of incubation(1). In aqueous, aerobic soil suspensions containing a silt loam soil inoculum, nicotinic acid was degraded by 16.1% after 1 day, 99.9% after 2 days, and 100% after 4 days of incubation(2). Nicotinic acid was readily biodegraded in screening tests using an activated sludge inoculum(3).

### **Bioaccumulative potential**

An estimated BCF of 3 was calculated in fish for nicotinic acid(SRC), using a log Kow of 0.36(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

### **Mobility in soil**

The Koc of nicotinic acid is estimated as 37(SRC), using a log Kow of 0.36(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that nicotinic acid is expected to have very high mobility in soil. The pKa of nicotinic acid is 4.75(4), indicating that this compound will primarily exist in the anion form in the environment and anions generally do not adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(5).

### **Other adverse effects**

no data available

---

## **SECTION 13: Disposal considerations**

### **Disposal methods**

#### **Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do

not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

### **Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

---

## SECTION 14: Transport information

### **UN Number**

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

### **UN Proper Shipping Name**

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

### **Transport hazard class(es)**

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

### **Packing group, if applicable**

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

### **Environmental hazards**

ADR/RID: No

IMDG: No

IATA: No

### **Special precautions for user**

no data available

### **Transport in bulk according to IMO instruments**

no data available

---

## SECTION 15: Regulatory information

### **Safety, health and environmental regulations specific for the product in question**

#### **European Inventory of Existing Commercial Chemical Substances (EINECS)**



Listed.

#### **EC Inventory**

Listed.

#### **United States Toxic Substances Control Act (TSCA) Inventory**

Listed.

#### **China Catalog of Hazardous chemicals 2015**

Not Listed.

#### **New Zealand Inventory of Chemicals (NZIoC)**

Listed.

#### **PICCS**

Listed.

#### **Vietnam National Chemical Inventory**

Listed.

#### **IECSC**

Listed.

#### **Korea Existing Chemicals List (KECL)**

Listed.

---

## SECTION 16: Other information

### **Abbreviations and acronyms**

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

### **References**

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

**Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.