

SAFETY DATA SHEETS

According to the UN GHS revision 8

Version: 1.0

Creation Date: July 15, 2019

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1. Identification

1.1 GHS Product identifier

Product name Nicotinic acid

1.2 Other means of identification

Other names

1.3 Recommended use of the chemical and restrictions on use

Identified uses Intermediates
Uses advised against no data available

1.4 Supplier's details

Company Target Molecule Corp.
Address Suite 260, 36 Washington Street, Wellesley Hills, Massachusetts, USA
Tel/Fax +1 (857) 239-0968

1.5 Emergency phone number

Emergency phone number 400-821-2233
Service hours Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

2. Hazard identification

2.1 Classification of the substance or mixture

Eye irritation, Category 2

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word Warning
Hazard statement(s) H319 Causes serious eye irritation
Precautionary statement(s)
Prevention P264 Wash ... thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face 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.
P337+P313 If eye irritation persists: Get medical advice/attention.
Storage none
Disposal none

2.3 Other hazards which do not result in classification

no data available

3. Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Nicotinic acid	Nicotinic acid	59-67-6	200-441-0	100%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Medical attention is required. Consult a doctor. Show this safety data sheet (SDS) to the doctor in attendance.

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.

4.2 Most important symptoms/effects, 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_x. (NTP, 1992)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

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.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable 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)

5.2 Specific hazards arising from the chemical

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

5.3 Special protective actions for fire-fighters

Use water spray, foam, powder, carbon dioxide.

6. Accidental release measures

6.1 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.

6.2 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.

6.3 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.

7. Handling and storage

7.1 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.

7.2 Conditions for safe storage, including any incompatibilities

Store in an area without drain or sewer access. Separated from strong acids, bases and oxidants.
Recommended storage temperature: Store at -20°C

8. Exposure controls/personal protection

8.1 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 ³	ppm	mg/m ³
Latvia		1		
	Remarks			

8.2 Appropriate engineering controls

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

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety goggles.

Skin protection

Protective gloves.

Respiratory protection

Avoid inhalation of dust.

Thermal hazards

no data available

9. Physical and chemical properties

Physical state	Solid. Powder.
Colour	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 sublimes 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	pH = 2.7 (saturated aq soln)
Kinematic viscosity	no data available
Solubility	>18.5 [ug/mL]
Partition coefficient n-octanol/water	log Pow = -0.59. Temperature:25 °C.;log Pow = -2.34. Temperature:25 °C.
Vapour pressure	5.70X10-6 mm Hg at 25 deg C (est)
Density and/or relative density	1.473 g/cm³. Temperature:25 °C.
Relative vapour density	no data available
Particle characteristics	no data available

10. Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable in air

10.3 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)

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

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

10.6 Hazardous decomposition products

When heated to decomposition it emits toxic fumes of nitroxides.

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.

12. Ecological information

12.1 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.

12.2 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).

12.3 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).

12.4 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).

12.5 Other adverse effects

no data available

13. Disposal considerations

13.1 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.

14. Transport information

14.1 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.)

14.2 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.)

14.3 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.)

14.4 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.)

14.5 Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15. Regulatory information

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

Chemical name	Common names and synonyms	CAS number	EC number
Nicotinic acid	Nicotinic acid	59-67-6	200-441-0
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.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.
Korea Existing Chemicals List (KECL)			Listed.

16. Other information

Information on revision

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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
- 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/>

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