Safety Data Sheet

According to the UN GHS revision 8

Creation Date: July 03, 2026
Revision Date: July 03, 2026

1. IDENTIFICATION

1.1 GHS Product identifier

Product name: Nicotinamide

Catalog Number: T0934

CAS Number: 98-92-0

1.2 Other means of identification

Other names: -

1.3 Recommended use of the chemical and restrictions on use

Identified uses:

1.4 Supplier's details

Company: Targetmol Chemicals Inc.

Address: 34 Washington Street, Wellesley Hills, Massachusetts 02481 USA

Tel/Fax: (781) 999-4286

1.5 Emergency phone number

Emergency phone number: 781-999-4286

Service hours: Monday to Friday, 9am-5pm (Standard timezone: UTC/GMT -5 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/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

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
Nicotinamide	-	98-92-0	202-713-4

4. FIRST-AID MEASURES

4.1 Description of necessary first-aid measures

General advice

no data available

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

Absorption, Distribution and Excretion 14(C)Niacinamide was incorporated into an oil-in-water (o/w) skin cream and into a 30% (w/w) soap base and applied to the skin of female Colworth Wistar rats. The final concentration of niacinamide in the soap solution was approximately 0.3% (w/v) and was 1% (w/w) in the skin cream. Application of the skin cream and soap paste was made to rat skin at approximately 20 mg/sq cm. The cream was carefully massaged over 10 sq cm of skin for up to 5 min before covering with polythene-lined occlusive protective patches. The rats were placed in metabolism cages for 48 hr during which time all excreta was collected. At 48 hr, the animals were killed and the patch, carcass, and treated area of skin were assayed for 14(C). Up to 32% 14(C) was recovered in excreta and in the carcasses from rats treated with skin cream containing 14(C)Niacinamide and up to 30% from those treated with soap paste.

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

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

This chemical is a noncombustible solid. Use dry chemical, carbon dioxide, water spray, or alcohol foam extinguishers. Poisonous gases are produced in fire. If material of contaminated runoff enters waterways, notify downstream users of potentially contaminated waters. Notify local health and fire officials and pollution control agencies. From a secure, explosion-proof location, use water spray to cool exposed containers. If cooling streams are ineffective (venting sound increase in volume and pitch, tank discolors, or shows any signs of deforming), withdraw immediately to a secure position. If employees are expected to fight fires, they must be trained and equipped in OSHA 1910.156.

5.2 Specific hazards arising from the chemical

Combustible. Gives off irritating or toxic fumes (or gases) in a fire. Finely dispersed particles form explosive mixtures in air.

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. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Wash away remainder with plenty of water.

6.2 Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Wash away remainder with plenty of water.

6.3 Methods and materials for containment and cleaning up

Evacuate persons not wearing protective equipment from area of spill or leak until clean up is complete. Remove all ignition sources. Use HEPA vacuum or wet method to reduce dust during cleanup. Do not dry sweep. Collect powdered material in the most convenient and safe manner and deposit in sealed containers. Ventilate after clean up is complete. It may be necessary to contain and dispose of this chemical as a hazardous waste. If material of contaminated runoff enters waterways, notify downstream users of potentially contaminated waters. Contact your Department of Environmental Protection or regional office of the federal EPA for specific recommendations. If employees are expected to clean up spills, they must be trained and equipped. OSHA 1910.120 may be applicable.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

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

Separated from oxidants.

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

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
Color	White
Odour	ODORLESS
Melting point/freezing point	130 °C.
Boiling point or initial boiling point and boiling range	157 °C. Atm. press.:-0.001 mm Hg.

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	150°C
Auto-ignition temperature	Remarks:No self-heating observed up to melting point temperature of ca. 140 °C.
Decomposition temperature	no data available
pH	10% "wt in vol" soln in water is neutral to litmus
Kinematic viscosity	no data available
Solubility	DMSO: 260 mg/mL (2129.05 mM),Sonication is recommended. Ethanol: 23 mg/mL (188.34 mM),Sonication is recommended. H2O: 122.7 mg/mL (1004.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
N-octanol-water partition coefficient	log Pow = -0.38. Temperature:21 °C. Remarks:No data on pH value.;Pow = 0.421. Temperature:21 °C. Remarks:No data on pH value.
Vapour pressure	0 Pa. Temperature:25 °C.
Density and/or relative density	1.40 g/cm3
Relative vapour density	(air = 1): 4.2
Particle characteristics	no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

On combustion, forms toxic gases including nitrogen oxides. Reacts with oxidants oxidants.

10.2 Chemical stability

Stable to heat, acids and alkali.

10.3 Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air.An amine and amide. Acts as a weak base in solution. Amines are chemical bases. They neutralize acids to form salts plus water. These acid-base reactions are exothermic. The amount of heat that is evolved per mole of amine in a neutralization is largely independent of the strength of the amine as a base. Amines may be incompatible with isocyanates, halogenated organics, peroxides, phenols (acidic), epoxides, anhydrides, and acid halides. Flammable gaseous hydrogen is generated by amines in combination with strong reducing agents, such as hydrides. Organic amides/imides react with azo and diazo compounds to generate toxic gases. Flammable gases are formed by the reaction of organic amides/imides with strong reducing agents. Amides are very weak bases (weaker than water). Imides are less basic yet and in fact react with strong bases to form salts. That is, they can react as acids. Mixing amides with dehydrating agents such as P2O5 or SOCl2 generates the corresponding nitrile. The combustion of these compounds generates mixed oxides of nitrogen (NOx).

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

When heated to decomposition it emits toxic fumes of nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral: LD50 - rat (male/female) - > 2 500 mg/kg bw.
Inhalation: LC50 - rat (male/female) - > 3.8 mg/L air (analytical).
Dermal: LD50 - rabbit (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 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 - Poecilia reticulata - > 1 000 mg/L - 96 h.
Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - > 1 000 mg/L - 24 h.
Toxicity to algae: IC50 - Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) - > 1 000 mg/L - 72 h.
Toxicity to microorganisms: NOEC - Pseudomonas putida - 4 235 mg/L - 18 h.

12.2 Persistence and degradability

AEROBIC: Nicotinamide was determined to be readily biodegradable in an aerobic screening test recommended by the Department of Environment, Standing Committee of Analysts, UK(1).

12.3 Bioaccumulative potential

An estimated BCF of 3 was calculated in fish for nicotinamide(SRC), using a log Kow of -0.37(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 nicotinamide is estimated as 15(SRC), using a log Kow of -0.37(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that nicotinamide is expected to have very high mobility in soil.

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

no data available

14.2 UN Proper Shipping Name

no data available

14.3 Transport hazard class(es)

no data available

14.4 Packing group, if applicable

no data available

14.5 Environmental hazards

no data available

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

15. REGULATORY INFORMATION

15.1 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.
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/

Other Information

no data available
