

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
 Issued: 2024-02-14
 Replaces SDS: 2021-02-22



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

1.1. Product identifier

Trade name

Nicotinamide

CAS number

98-92-0

EC number

202-713-4

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

Relevant identified uses

Research and development. Laboratory Chemicals. Manufacture of substances.

Not suitable for use in

Not suitable for human consumption or veterinary purposes.

1.3. Details of the supplier of the safety data sheet

Supplier

Molekula Group

Address

Molekula Ltd, Lingfield Way, Darlington,
 DL1 4XX Darlington
 United Kingdom

Telephone

+44 (0) 3302 000 333

Email

info@molekula.com

Web site

www.molekula.com

Contact person

Kevin Banks

Email

+44 (0) 7769276927

1.4. Emergency telephone number

Poison center/Additional emergency number

0344 892 0111 - National Poisons Information Service (Newcastle Centre)

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
 Issued: 2024-02-14
 Replaces SDS: 2021-02-22



SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification

Skin irritation, hazard category 2

Eye irritation, hazard category 2

Specific Target Organ Toxicity — Single exposure, hazard category 3

Hazard statements

H315, H319, H335

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Warning

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statements

P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

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

P302 + P352 IF ON SKIN: Wash with plenty of water/.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P332 + P313 If skin irritation occurs: Get medical advice/attention.

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

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container to local regulations.

2.3. Other hazards

No data available

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
 Issued: 2024-02-14
 Replaces SDS: 2021-02-22



SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrases M factor acute M factor chronic	Note
Nicotinamide	98-92-0 202-713-4 - -	100%	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3	H315, H319, H335 - -	-

Molecular weight

122.12

Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Move to fresh air if inhaled.

Get medical attention if any discomfort continues.

Skin contact

Rinse skin with water.

If skin irritation or rash occurs: Get medical advice/attention.

Eye contact

Remove contact lenses if present. Rinse eyes with water.

If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth.

Get medical advice/attention if you feel unwell.

Information for doctors

No data available.

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

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation

May cause respiratory irritation.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
 Issued: 2024-02-14
 Replaces SDS: 2021-02-22



Skin contact

Prolonged contact may cause dryness of the skin.

Eye contact

May be slightly irritating to the eyes.

Ingestion

May cause discomfort if swallowed.

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

Treat symptomatically. No special treatment requirement.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

In case of fire: Use alcohol resistant foam, carbon dioxide, dry powder or water fog to extinguish.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards: None.

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Carbon monoxide (CO). Carbon dioxide (CO₂).

Nitrous gases (NO_x).

Harmful gases or vapours.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Evacuate area. Avoid breathing gas, fume, vapours or spray. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Collect spillage with shovel, broom or the like and reuse, if possible. Dispose of large amounts of spillage/waste according to agreement with local authorities.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
Issued: 2024-02-14
Replaces SDS: 2021-02-22



6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

Wear protective clothing, gloves, eye and face protection. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid ingestion and inhalation. For precautions see section 2.2.

General hygiene

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove contaminated clothing and launder thoroughly before re-use. Wash skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Store at ambient temperature. Store in a dry place. Store in a closed container.
Light sensitive.

7.3. Specific end use(s)

No specific usage precautions noted.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

No occupational exposure limit assigned.

DNEL/DMEL

Product/Substance name (CAS No./EC No.)	Type	Exposure	Value	Population	Effects
Nicotinamide (98-92-0/202-713-4)	DNEL	Chronic (long term) Inhalation	43.75 mg/m ³	Workers	Systemic
Nicotinamide (98-92-0/202-713-4)	DNEL	Chronic (long term) Dermal	21.88 mg/m ³	Consumers	Systemic

PNEC/PEC

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
 Issued: 2024-02-14
 Replaces SDS: 2021-02-22



Product/Substance name (CAS No./EC No.)	Type	Environmental compartment	Value
Nicotinamide (98-92-0/202-713-4)	PNEC	Freshwater	1 mg/l
Nicotinamide (98-92-0/202-713-4)	PNEC	Marine water	0.1 mg/l
Nicotinamide (98-92-0/202-713-4)	PNEC	Sediment (freshwater)	1.1 mg/kg
Nicotinamide (98-92-0/202-713-4)	PNEC	Sediment (marine water)	0.11 mg/kg
Nicotinamide (98-92-0/202-713-4)	PNEC	Soil	0.33 mg/kg
Nicotinamide (98-92-0/202-713-4)	PNEC	Sewage Treatment Plant	423.5 mg/l

8.2. Exposure controls

Personal Protective Equipment Symbols



Eye / face protection

Wear eye protection.

Hand protection

Wear protective gloves.

Recommended gloves: Nitrile.

Glove Thickness: 0.11mm

Breakthrough time: 8 hours

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

Wash contaminated skin thoroughly after handling.

Other skin protection

Wash skin thoroughly after handling.

Respiratory protection

Provide adequate ventilation.

Environmental exposure controls

Avoid discharge into drains.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
 Issued: 2024-02-14
 Replaces SDS: 2021-02-22



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Solid

Colour

White.

Odour

Odourless.

Melting point / freezing point

128 - 131 °C

Boiling point or initial boiling point and boiling range

150 - 160 °C

Flammability

No data available

Lower and upper explosion limit

No data available

Flash point

150 °C

Auto-ignition temperature

No data available

Decomposition temperature

No data available

pH

No data available

Kinematic viscosity

No data available

Solubility

500 g/l

Partition coefficient n-octanol/water

No data available

Vapour pressure

No data available

Density and/or relative density

1.4 g/cm³

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
 Issued: 2024-02-14
 Replaces SDS: 2021-02-22



Relative vapour density

No data available

Particle characteristics

No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Forms explosive mixtures with air on intense heating.

15 (approx) Kelvin below the flash point is to be rated as critical.

The following applies in general to flammable organic substances and mixtures: when finely distributed, the risk of a dust explosion may be assumed.

10.2. Chemical stability

Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidising agents.

10.4. Conditions to avoid

strong heating

10.5. Incompatible materials

Strong oxidising agents.

10.6. Hazardous decomposition products

See section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals
Nicotinamide 98-92-0 / 202-713-4	LD50	>2500 mg/kg	Oral	-	Rat
Nicotinamide 98-92-0 / 202-713-4	LD50	>2000 mg/kg	Dermal	-	Rabbit

According to Regulation (EC) No 1907/2006
According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
Issued: 2024-02-14
Replaces SDS: 2021-02-22



Product / Sub- stance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of expos- ure	Test animals
Nicotinamide 98-92-0 / 202-713-4	LC50	>3.8 mg/l	Inhalation.	4 hours	Rat

Skin corrosion/irritation

Product / Substance name CAS / EC no.	Result	Duration of exposure	Species
Nicotinamide 98-92-0 / 202-713-4	No skin irritation.	4 hours	Rabbit

Serious eye damage/irritation

Product / Substance name CAS / EC no.	Result	Species
Nicotinamide 98-92-0 / 202-713-4	Causes eye irritation.	Rabbit

Respiratory or skin sensitisation

Product / Substance name CAS / EC no.	Result	Species	Method / Guideline
Nicotinamide 98-92-0 / 202-713-4	Negative.	Guinea Pig	Guinea pig maximization test (GPMT):

Germ cell mutagenicity

Product / Sub- stance name CAS / EC no.	Result	Exposure route	Metabolic activa- tion / Exposure	Species	Method / Guideline
Nicotinamide 98-92-0 / 202-713-4	Negative.	-	with and without metabolic activation	Salmonella typh- imurium	Ames test
Nicotinamide 98-92-0 / 202-713-4	Negative.	-	with and without metabolic activation	Human lymphocytes	Mutagenicity (mam- mal cell test): Chro- mosome aberration:
Nicotinamide 98-92-0 / 202-713-4	Negative.	Intraperitoneal.	-	Mouse bone mar- row	in vivo Micronucleus test

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
Issued: 2024-02-14
Replaces SDS: 2021-02-22



Carcinogenicity

Product / Substance name CAS / EC no.	Other
Nicotinamide 98-92-0 / 202-713-4	No evidence of carcinogenicity in animal studies

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

No data available

SECTION 12: Ecological information

12.1. Toxicity

Acute fish toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Nicotinamide 98-92-0 / 202-713-4	LC50	>1000 mg/l	96 hours	Poecilia reticulata (Guppy)

Acute algae toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Nicotinamide 98-92-0 / 202-713-4	NOEC	560 mg/l	72 hours	Desmodesmus sub- spicatus (green algae)

Acute crustacean toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Nicotinamide 98-92-0 / 202-713-4	EC50	>1000 mg/l	24 hours	Daphnia magna

Micro-/macro organism toxicity

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
 Issued: 2024-02-14
 Replaces SDS: 2021-02-22



Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Nicotinamide 98-92-0 / 202-713-4	NOEC	4235 mg/l	18 hours	Pseudomonas putida

12.2. Persistence and degradability

Persistence and degradability

Product / Substance name CAS / EC no.	Type of test	Duration	Result	Degradation
Nicotinamide 98-92-0 / 202-713-4	aerobic	14 days	96 hours	The substance is readily biodegradable.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Nicotinamide

Version number: 2
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 Replaces SDS: 2021-02-22



14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU regulations

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

This material safety data sheet complies with the requirements of Regulation (EU) 2020/878.

National regulations

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Phrase meaning

Skin Irrit. 2 - Skin irritation, hazard category 2

Eye Irrit. 2 - Eye irritation, hazard category 2

STOT SE 3 - Specific Target Organ Toxicity — Single exposure, hazard category 3

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.