Version: 11.2019
Rev. 0

Material safety data sheet

According to EU Regulation 1907/2006 in the current version

Niacinamide

1. Identification of the substance/mixture and company

Trade name:	Niacinamide Vitamin B3
INCI	Niacinamide
CAS No. :	98-92-0
EINESCS No. :	202-713-4
REACH pre-registration No. :	-
Utilization:	Raw material for cosmetic or professional use
Supplier company identification:	Elemental SRL, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania Tel/Fax: +40259-436.755
Emergency:	RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de Sănătate Publică București. International emergency number: +49 180 2273-112

2. Hazards Identification

2.1 Classification of the substance or mixture

According to UN GHS criteria
Acute Tox. 5 (oral)
Eye Dam./Irrit. 2A
For the classifications not written out in full in this section the full text can be found in section 16.

2.2 Label elements

Globally Harmonized System (GHS)

Pictogram:

Signal Word: Warning

Hazard Statements:

H319	Causes serious eye irritation.
H303	May be harmful if swallowed.

Precautionary Statements (Prevention):

P280	Wear eye/face protection.
P264	Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P312	Call a POISON CENTER or doctor/physician if you feel unwell.

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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.

2.2 Other hazards

According to UN GHS criteria

The product is under certain conditions capable of dust explosion. The product does not fulfill the

criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

3. Declaration of ingredients

3.1 Substances

Chemical nature: Nicotinamide
For the classifications not written out in full in this section the full text can be found in section 16.

3.2 Mixtures
Not applicable

4. First aid measures

4.1 Description of first aid measures

Remove contaminated clothing.

If inhaled: Keep patient calm, remove to fresh air, seek medical attention.

On skin contact: Wash thoroughly with soap and water.

On contact with eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion: Rinse mouth and then drink 200-300 ml of water. If difficulties occur: Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.

4.3 Indication of any immediate medical attention and special treatment needed

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Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire fighting measures

5.1 Extinguishing media
Suitable extinguishing media: water spray, foam, dry powder.
Additional information: Avoid whirling up the material/product because of the danger of dust explosion.
5.2 Special hazards arising from the substance or mixture
Carbon monoxide, Carbon dioxide, nitrogen oxides. The substances/groups of substances mentioned can be released in case of fire.

5.3 Advice for fire-fighters
Special protective equipment: Wear a self-contained breathing apparatus.
Further information: Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Dust can form an explosive mixture with air.

6. Accidental release measures

Dust can form an explosive mixture with air.

6.1 Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Take appropriate protective measures. Use personal protective clothing.
Information regarding personal protective measures see, section 8.

6.2 Environmental precautions
Do not discharge into drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up
For small amounts: Sweep/shovel up.
For large amounts: Sweep/shovel up.
Avoid raising dust. Dampen, pick up mechanically and dispose of. Dispose of absorbed material in accordance with regulations.

6.4 Reference to other sections
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling
Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Avoid dust formation. Ensure thorough ventilation of stores and work areas. Avoid contact with the skin, eyes and clothing.

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Protection against fire and explosion: The product is capable of dust explosion.

7.2 Conditions for safe storage, including any incompatibilities
Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Avoid direct sunlight.

7.3 Specific end use(s)
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure controls / personal protection

8.1 Control parameters

Components with occupational exposure limits> 98-92-0: Nicotinamide

8.2 Exposure controls
Personal protective equipment:

Respiratory protection: Breathing protection if breathable aerosols/dust are formed. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1or FFP1)

Hand protection: Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection: Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures: Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts. Wearing of closed work clothing is recommended. When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice. Wash contaminated clothing before reuse. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties
Form: powder

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Color: off-white
Odor: almost odorless
Odor threshold: not applicable, odor not perceivable
pH value: 6 – 7,5 (50 g/l, 20 °C)
melting range: 128 - 131 °C
Boiling point: 224 °C (20 hPa)
Flash point: > 150 °C
Evaporation rate: not applicable
Flammability: not highly flammable (other)
Lower explosion limit: For solids not relevant for classification and labeling.
Upper explosion limit: For solids not relevant for classification and labeling.
Ignition temperature: 440 °C
Vapor pressure: 0,00045 hPa (25 °C)
Density: 1,4 g/cm3
Relative vapor density (air): not applicable
Solubility in water: 691 - 1.000 mg/l (20 °C)
Solubility (quantitative) solvent(s): Ethanol 660 g/l
Partitioning coefficient n-octanol/water (log Kow): -0,38 (22 °C)
Self ignition: not self-igniting
Thermal decomposition: 150 °C
Viscosity, dynamic: not applicable
Explosion hazard: Product is not explosive, however a dust explosion could result from an air / dust mixture.
Fire promoting properties: not fire-propagating
Self heating ability: It is not a substance capable of spontaneous heating.
Minimum ignition energy: 10 - 20 mJ
Bulk density: approx. 500 - 700 kg/m3
Molar mass: 122,13 g/mol

9.2 Other Information
If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and reactivity

10.1 Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.
Corrosion to metals: No corrosive effect on metal.

10.2 Chemical stability
The product is stable if stored and handled as prescribed/indicated.

10.3 Possibility of hazardous reactions
Dust explosion hazard.
The product is stable if stored and handled as prescribed/indicated.

10.4 Conditions to avoid

Avoid dust formation. Avoid electro-static charge. Avoid all sources of ignition: heat, sparks, open flame.

10.5 Incompatible materials
Substances to avoid: oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity	
Assessment of acute toxicity:	Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact.
Experimental/calculated data:	LD50 rat (oral): 3.540 mg/kg (OECD Guideline 401). Literature data. (by inhalation):No data available. LD50 rabbit (dermal): > 2.000 mg/kg (OECD Guideline 402). Literature data.
Irritation	
Assessment of irritating effects:	Eye contact causes irritation. Not irritating to the skin.
Experimental/calculated data:	Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404). Literature data. Serious eye damage/irritation rabbit: Irritant. (OECD Guideline 405). Literature data.
Respiratory/Skin sensitization	
Assessment of sensitization:	No sensitizing effect.
Experimental/calculated data:	Buehler test guinea pig: Non-sensitizing. (OECD Guideline 406). Literature data.
Germ cell mutagenicity	
Assessment of mutagenicity:	Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.
Experimental/calculated data:	Ames-test Bacteria: negative (OECD Guideline 471).
Carcinogenicity	
Assessment of carcinogenicity:	In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.
Reproductive toxicity	

Assessment of reproduction toxicity: Repeated oral uptake of the substance did not cause damage to the reproductive organs.

Developmental toxicity
Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Specific target organ toxicity (single exposure)
Remarks: Based on available Data, the classification criteria are not met.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)
Assessment of repeated dose toxicity: Based on available Data, the classification criteria are not met.

Aspiration hazard
not applicable

12. Ecological information

12.1 Toxicity
Assessment of aquatic toxicity: There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.
Toxicity to fish: LC50 (96 h) > 1.000 mg/l, Poecilia reticulata (OECD Guideline 203, static). The details of the toxic effect relate to the nominal concentration.
Aquatic invertebrates: EC50 (24 h) > 1.000 mg/l, Daphnia magna (OECD Guideline 202, part 1, static). The details of the toxic effect relate to the nominal concentration.
Aquatic plants: EC50 (72 h) 560 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static). The details of the toxic effect relate to the nominal concentration.
Microorganisms/Effect on activated sludge: EC10 (18 h) 4.235 mg/l, Pseudomonas putida

12.2 Persistence and degradability
Assessment biodegradation and elimination (H2O): Readily biodegradable (according to OECD criteria).
Elimination information: 96 % DOC reduction (28 d) (OECD 301E/92/69/EEC, C.4-B) (aerobic).

12.2 Bioaccumulative potential
Bioaccumulation potential: Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

12.3 Mobility in soil

Assessment transport between environmental compartments: Adsorption in soil: Adsorption to solid soil phase is not expected.

12.4 Results of PBT and vPvB assessment
According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.5 Other adverse effects
The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.6 Additional information
Other ecotoxicological advice: Do not discharge product into the environment without control.

13. Disposal considerations

13.1 Waste treatment methods
Observe national and local legal requirements.
Contaminated packaging: Uncontaminated packaging can be recycled. Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. Transport information

14.1 Land transport

ADR

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable

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Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

14.2 Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None known
Transport in inland waterway vessel:	Not evaluated

14.3 Sea transport

IMDG

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

14.4 Air transport

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable

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Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

14.5 UN number
See corresponding entries for “UN number” for the respective regulations in the tables above.

14.6 UN proper shipping name
See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

14.7 Transport hazard class(es)
See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

14.8 Packing group
See corresponding entries for “Packing group” for the respective regulations in the tables above.

14.9 Environmental hazards
See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

14.10 Special precautions for user See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

14.11 Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Additional information

Information on intended use: This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use. This includes the mentioned and recommended usage. Any other intended applications

should be discussed with the manufacturer. In particular this concerns the application for products that are the object of special standards and regulations.

16.1 Assessment of the hazard classes according to UN GHS criteria (most recent version)

Eye Dam./Irrit. 2A
Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

16.2 Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
Eye Dam./Irrit.	Serious eye damage/eye irritation

16.3 Abbreviations:
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived No Effect Level.
EINECS: European Inventory of Existing Commercial Chemical Substances.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
LTE: Long-term exposure.
PNEC: Predicted No Effect Concentration.
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE: Short-term exposure.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.

Disclaimer:
This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.