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

1.1 Product identifier

Trade name : Niacinamide PC

REACH Registration Number : 01-2119968268-22

Substance name : 3-Pyridinecarboxamide
CAS-No. : 98-92-0

Distributed by:

Univar Solutions USA

3075 Highland Pkwy Ste 200
Downers Grove, IL 60515
Telephone: 1-855-429-2661
Emergency phone number:
CHEMTREC 1-800-424-9300

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

Use of the Substance/Mixture : Ingredient for personal care products

1.3 Details of the supplier of the safety data sheet

Company : DSM Nutritional Products Ltd.
PO Box 2676
CH-4002 Basel

Telephone : +41618158888
E-mail address of person responsible for the SDS : sds.nutritionalproducts@dsm.com

1.4 Emergency telephone number

+41 848 00 11 77 (Carechem 24 International)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear 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.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumula-

tive and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Risk of dust explosion.

SECTION 3: Composition/information on ingredients

Synonyms : nicotinic acid amide
Vitamin PP

Brief description of the product : Substance

Molecular formula : C6 H6 N2 O

3.1 Substances

Hazardous components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
nicotinamide	98-92-0 202-713-4	>= 90 - <= 100

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.
Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No specific symptoms known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water
Foam

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : None known.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Consider dust explosion hazard.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Avoid dust formation.
Avoid breathing dust.

6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Pick up and arrange disposal without creating dust.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Take precautionary measures against static discharges.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : To maintain product quality, do not store in heat or direct sunlight.

Keep container tightly closed and dry.

7.3 Specific end use(s)

Specific use(s) : Not applicable

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
nicotinic acid amide	Industrial use	Inhalation	Long-term systemic effects	43.75 mg/m3
	Professional use	Inhalation	Long-term systemic effects	21.88 mg/m3
	Workers	Skin contact	Long-term systemic effects	12.5 mg/kg bw/d
	Professional use	Ingestion	Long-term systemic effects	12.5 mg/kg bw/d

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
nicotinic acid amide	Fresh water	1 mg/l
	Marine water	0.1 mg/l
	Fresh water sediment	1.1 mg/l
	Marine sediment	0.11 mg/l
	Sewage treatment plant	423.5 mg/l
	Soil	0.33 mg/l

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields

Hand protection

: Consider the hazard characteristics of this product and any special workplace conditions when selecting the appropriate type of protective gloves.
Glove material: for example nitrile rubber

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : crystalline, powder

Colour : white

Odour : odourless

Odour Threshold	:	No information available.
pH	:	6.0 - 7.5 (50 g/l, 20 °C)
Melting point/range	:	128 - 131 °C
Boiling point/boiling range	:	224 °C (20 hPa)
Flash point	:	182 °C (open cup)
Flammability (solid, gas)	:	not highly flammable (Method: Flammability (solids))
		May form combustible dust concentrations in air.
Vapour pressure	:	0.00045 hPa (25 °C; OECD Test Guideline 104)
Relative vapour density	:	Not applicable
Density	:	1.4 g/cm3 (25 °C)
Water solubility	:	500 g/l (25 °C)
Solubility in other solvents	:	Ethanol: 660 g/l
		Diethylether: ca.10 g/l
		Glycerol: soluble
Partition coefficient: n-octanol/water	:	log Pow -0.38 (20 °C; OECD Test Guideline 107)
Auto-ignition temperature	:	No self ignition observed in the Grewer oven at temperatures below melting point.
Thermal decomposition	:	Not relevant
Explosive properties	:	Not explosive
Oxidizing properties	:	No data available

9.2 Other information

Combustibility index for deposited dust	:	2 (23 °C)
	:	2 (100 °C)
Dust explosion class	:	St(H)2 (Milled sample, Median value of the tested sample 0.041 mm, Loss on drying 0.5 %; The value was determined in the modified Hartmann tube.)
Minimum ignition energy	:	3 - 10 mJ (Milled sample, Median value of the tested sample 0.041 mm, Loss on drying 0.5 %, EN 13821) The Minimum ignition energy (MIE) of a dust/air mix depends on the particle size the water content and the temperature of the dust. The finer and the dryer the dust the lower the MIE.
	:	General remark: The indicated dust explosion characteristics are only valid for this product and are sensitive to the sample's parameters.
Powder volume resistivity	:	ca. 5E+09 Ohmm (Product sample, Median value of the tested sample 0.170 mm, Loss on drying 0.2 %)
Minimum ignition temperature of a dust/air mix	:	480 °C (Median value of the tested sample 0.170 mm) determined in the BAM oven
Molecular weight	:	122.13 g/mol
Particle size	:	<= 10 % < 0.050 mm

Dissociation constant	:	pKa 3.35
Impact sensitivity	:	Not impact sensitive.

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Dust may form explosive mixture in air.

10.4 Conditions to avoid

Heat

10.5 Incompatible materials

Acids and bases
Strong oxidizing agents

10.6 Hazardous decomposition products

Nitrogen oxides (NOx)
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity	:	LD50 (Rat, male and female): > 2,500 mg/kg (OECD Test Guideline 423)
	:	LD50 (Mouse): 2,500 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg (OECD Test Guideline 402)
Skin irritation	:	No skin irritation (Rabbit, OECD Test Guideline 404)
Eye irritation	:	Moderate eye irritation (Rabbit, OECD Test Guideline 405)
	:	Dust contact with the eyes can lead to mechanical irritation.
Sensitisation	:	Did not cause sensitization. (Guinea pig, Buehler Test, OECD Test Guideline 406)
Genotoxicity in vitro	:	not mutagenic (Ames test, OECD Test Guideline 471)
	:	not genotoxic (Chromosome aberration test in vitro, OECD Test Guideline 473)

Genotoxicity in vivo	:	not genotoxic (In vivo micronucleus test, Mouse, OECD Test Guideline 474)
Carcinogenicity	:	(Mouse) Did not show carcinogenic effects in animal experiments.
Reproductive toxicity	:	No indication for adverse effects on fertility known.
Teratogenicity	:	not teratogenic (Rabbit, Oral, OECD Test Guideline 414)
STOT - single exposure (Acute exposure)	:	The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	:	NOAEL (Oral, Rat, 28 d) : 215 mg/kg bw/d Subacute toxicity study (28 days) (OECD Test Guideline 407)
Aspiration toxicity	:	No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Experience with human exposure

Product:

: RDA (Recommended Daily Allowance) 15 - 18 mg

Further information

Product:

Remarks	:	May cause irritation of respiratory tract.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish	:	Poecilia reticulata (guppy) LC50 (96 h) > 1,000 mg/l (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	:	Daphnia magna (Water flea) EC50 (24 h) > 1,000 mg/l (OECD Test Guideline 202)

Toxicity to algae	:	Desmodesmus subspicatus (green algae) IC50 (72 h) > 1,000 mg/l (OECD Test Guideline 201)
Toxicity to bacteria	:	Pseudomonas putida EC10 (18 h) 4,235 mg/l

12.2 Persistence and degradability

Biodegradability	:	Readily biodegradable. 95 % (28 d) (OECD Test Guideline 301E)

12.3 Bioaccumulative potential

Bioaccumulation	:	No data available
Partition coefficient: n-octanol/water	:	log Pow -0.38 (20 °C ; OECD Test Guideline 107)

12.4 Mobility in soil

Distribution among environmental compartments	:	No data available

12.5 Results of PBT and vPvB assessment

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information	:	There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	:	Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Not applicable

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP -

Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

DNEL - Derived No-Effect Level; NFPA - National Fire Protection Association (USA); PNEC - Predicted No-Effect Concentration; STEL - Short term exposure limit; TLV-C - Ceiling Limit Value; TWA - Time Weighted Average; WEL - Workplace Exposure Limit.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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