

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

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

1.1 Product identifier

Commercial name: PureNic 99+
Chemical name: nicotine
Index number: 614-001-00-4
REACH registration number: 01-2120066934-47-0004

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

Relevant identified uses: laboratory chemicals, production of mixtures.
Uses advised against: not determined.

1.3 Details of the supplier of the safety data sheet

Supplier: CHEMNOVATIC Sp. z o.o. Sp. k
Address: Dobrzańskiego 3/BS002, 20-262 Lublin, POLAND
Telephone number: +48 81 475 44 42
E-mail address for a competent person responsible for msds: biuro@theta-doradztwo.pl

1.4 Emergency telephone number

112

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Acute Tox. 2 H330, Acute Tox. 2 H310, Acute Tox. 2 H300, Aquatic Chronic 2 H411
Fatal if inhaled. Fatal in contact with skin. Fatal if swallowed. Toxic to aquatic life with long lasting effects.

2.2 Label elements

Hazard symbols and signal words



DANGER

Hazard statements

H330 Fatal if inhaled.
H310 Fatal in contact with skin.
H300 Fatal if swallowed.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P361 Remove/Take off immediately all contaminated clothing.
P405 Store locked up.
P501 Dispose of contents/container to container for waste.

2.3 Other hazards

No information whether the mixture meets criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

Section 3: Composition/information on ingredients

3.1 Substances

nicotine

Range of percentages: 98-100%
CAS number: 54-11-5
EC number: 200-193-3
Index number: 614-001-00-4

Substance with a specific value at the Community level of the permissible concentration in the work environment.

Section 4: First aid measures

4.1 Description of first aid measures

Skin contact: immediately take off contaminated clothing. Wash out skin with plenty of water with soap. Consult a doctor immediately.

Eye contact: wash out with plenty of water with the eyelid hold wide open, for 10-15 min. Remove any contact lenses. Avoid strong stream of water-risk of cornea damage. Seek medical advice if necessary.

Ingestion: do not induce vomiting. Rinse mouth with water. Do not give anything to drink to an unconscious person. Consult a doctor – show the container or label.

Inhalation: remove to fresh air. Keep warm and calm. Consult a doctor, if symptoms persist.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact: redness, tearing, mild irritation.

Skin contact: can cause irritation, breathing problems, dizziness, cramps, nausea, vomiting. It can be absorbed through the skin. At sensitive individuals may experience an allergic reaction.

Ingestion: nausea, vomiting. In extreme cases, after swallowing very large quantities of product, may appear breathing problems, dizziness, disorders of the respiratory tract.

Inhalation: following exposure to doses above permissible limits include: stimulation of breath, nausea, vomiting, headache, dizziness, diarrhea, tachycardia, increased blood pressure, sweating, salivation, burning sensation in the mouth, throat and stomach.

4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO₂, sand, dry chemical, water spray. Extinguishing media adapt to materials in surrounding.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

5.2 Special hazards arising from the substance or mixture

May produce toxic fumes of carbon and nitrogen oxides, if burning. Do not inhale combustion products.

5.3 Advice for firefighters

Personal protection typical in case of fire. Wear suitable respiratory equipment. Cool down containers with water from safe distance to prevent bursting.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. In case of large spills, isolate the exposed area. Ensure adequate ventilation. Avoid contact with skin and eyes. Avoid contact with spilled material. Danger of slipping, do not pass through spilled material. Wear adequate personal protective equipment. Do not allow the product to get into mouth.

6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

6.3 Methods and material for containment and cleaning up

Soak up with liquid-binding material (e.g. sand, universal binding agent, diatomaceous earth). Collect spilled material in containers. Disposal in accordance with the local legislation. Clean the contamination place.

6.4 Reference to other sections

Appropriate conduct with waste product – see section 13.
Personal protective equipment – see section 8.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Avoid contact with skin and eyes. Do not inhale vapours. Ensure adequate ventilation. Before break and after work wash carefully hands. Keep not used containers tightly closed. Do not allow the product to get into mouth.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in cool and well-ventilated area. Keep away from food, beverages or feed for animals. Store at about 0-10°C in a well closed containers, protected from light. Once opened container should be used immediately. Avoid heat and ignition sources.

7.3 Specific end use(s)

Laboratory chemicals, production of mixtures.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Specification	TWA 8 hour	STEL 15 min
nicotine [CAS 54-11-5]	—	0,5 mg/m ³ (skin)

Legal Basis: Commission Directive 2017/164

Please check any national occupational exposure limit values in your country for substance contained in this product.

8.2 Exposure controls

Use the product in accordance with good occupational hygiene and safety practices. Ensure adequate ventilation. When handling do not eat, drink or smoke. Before break and after work carefully wash hands. In the vicinity of the work should be installed safety showers and separate washer eyewash. At the exit of the room in which you are working with toxic materials should be at least one sink with brought to the warm water - for every twenty employees.

Hand and body protection

Wear the protective gloves (long-term exposure – butyl rubber, thickness: 0,3 mm, penetration time: >480 min., short-term exposure: nitrile rubber, thickness: 0,4 mm, penetration time: >30 min.) and protective clothing.





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The material that the gloves are made of must be impenetrable and resistant to the product's effects. The selection of material must be performed with consideration of breakthrough time, penetration speed and degradation. Moreover, the selection of proper gloves depends not only on the material, but also on other quality features and changes depending on the manufacturer. The producer should provide detailed information regarding the exact breakthrough time. This information should be followed.

Eye/face protection

Wear tight safety glasses when there is a danger of possible eye contamination.

Respiratory protection

In case of normal and as intended use, no respirator is needed. If exposure limits are exceeded, apply face mask with appropriate organic vapour cartridge.

Environmental exposure controls

Do not allow the mixture to contaminate surface water/ground water.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

physical state:	liquid
colour:	from clear to light brown
odour:	characteristic for tobacco, irritant
odour threshold:	not determined
pH:	10,2
melting point/freezing point:	-79°C
initial boiling point and boiling range:	247 °C
flash point:	95 °C
evaporation rate:	not determined
flammability (solid, gas):	not applicable
upper/lower flammability or explosive limits:	not determined
vapour pressure:	0,006 kPa
vapour density:	5,6
density (20°C):	1,01 g/cm ³
solubility(ies):	soluble
partition coefficient: n-octanol/water:	log Pow: 1,17
auto-ignition temperature:	product is not self-igniting
decomposition temperature:	not determined
explosive properties:	not display
oxidising properties:	not display
viscosity:	2,7 mPa*s (25°C) 1,6 mPa*s (50°C)

9.2 Other information

No additional data.

Section 10: Stability and reactivity

10.1 Reactivity

Product doesn't undergo dangerous polymerization. See also subsections 10.3-10.5.

10.2 Chemical stability

The product is stable under normal conditions.

10.3 Possibility of hazardous reactions

Dangerous reactions are not known.

10.4 Conditions to avoid

Avoid direct sunlight and sources of ignition.



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10.5 Incompatible materials

Strong oxidizers.

10.6 Hazardous decomposition products

Unknown.

Section 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Fatal if inhaled. Fatal in contact with skin. Fatal if swallowed.

The acute toxicity of a mixture (ATEmix) was determined using the estimated acute toxicity (ATE) used for the classification of acute toxicity to human health in mixtures containing nicotine in accordance with Commission Regulation (EU) 2017/776 of 4 May 2017 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

ATE (oral) 5 mg/kg

ATE (skin) 70 mg/kg

ATE (inhalation - mist) 0,19 mg/l

Moreover, after large doses of nicotine symptoms such as burn in the oral cavity, throat and stomach were stated. They were followed by exhaustion, seizure, worsening of respiration, irregular heartbeat and impaired motor coordination and coma. In such case death can occur within 5 min to 4 hrs. Chronic nicotine poisoning leads to cardiovascular disorders. Vascular changes promote occurrence of angina pectoris and heart attacks, and they cause: memory disorders, slow cerebration and thoughts coordination deterioration, lack of energy and general exhaustion as well. Also alimentary canal disorders are observed.

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Respiratory or skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Section 12: Ecological information

12.1 Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Acute toxicity for fish LC₅₀: 4 mg/l/96h *Oncorhynchus mykiss*

Acute toxicity for interverbes EC₅₀: 0,24 mg/l/48h *Daphnia magna*

12.2 Persistence and degradability

Biodegradation: 71% after 28 days (OECD 301B method)

12.3 Bioaccumulative potential

Log $P_{o/w}$ = 1,17* (pH=12)

*J. W. Gorrod, *Determination of partition coefficients and ionisation constants of (S)-(-)- nicotine and certain metabolites*, Med. Sci. Res., 20, 901-902, 1992.

12.4 Mobility in soil

Product is mobile in soil and in water.

12.5 Results of PBT and vPvB assessment

Not applicable.

12.6 Other adverse effects

This product has no influence on the global warming or the ozone layer depletion. Product can be dangerous for drinking water even after penetration of small quantities to soil.

Section 13: Disposal considerations

13.1 Waste treatment methods

Disposal methods for the product: disposal in accordance with the local legislation. Store remainings in original containers. Do not empty into drains.

Disposal methods for used packing: reuse/recycling/liquidation of empty containers dispose in accordance with the local legislation. Do not dispose empty packing with regular household waste. Do not mix with other waste.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

Section 14: Transport information

14.1 UN number

ADR: UN 1654

IMDG: UN 1654

IATA: UN 1654

14.2 UN proper shipping name

ADR: NICOTINE

IMDG: NICOTINE

IATA: NICOTINE

14.3 Transport hazard class(es)

ADR: 6.1

IMDG: 6.1

IATA: 6.1

14.4 Packing group

ADR: II

IMDG: II

IATA: II

14.5 Environmental hazards

Hazardous for the environment according to the transport regulations.

14.6 Special precautions for user

Use protective measures according to section 8.



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14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Other information

limited number of LQ:	100 ml
hazard identification number:	60
special provision:	-
transport category:	2
code tunnel restriction:	D / E

Section 15: Regulatory information

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).

Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

15.2 Chemical safety assessment

Chemical safety assessment has not been carried out for the substance.

Section 16: Other information

Clarification of aberrations and acronyms

PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance
TWA	Time Weighted Average
STEL	Short-term exposure limit

Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

Key literature references and data sources

Safety data sheet was drawn up on the basis provided by the distributor sheet, online databases (e.g. ECHA, TOXNET, COSING) as well as knowledge and experience, taking into account the current legislation.

Other data

Changes:	section: 7
Composed by:	mgr Aleksandra Gendek (on the basis of producer's data).
Safety Data Sheet made by:	„THETA” Doradztwo Techniczne

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The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.