



SAFETY DATA SHEET

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

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

1.1. Product identifier

TRADE NAME: Natural NICBASE PDO 100 mg

Description: Diluted nicotine (100 mg/ml) in 1,2-propanediol.

UFI: 2332-M04Q-600Y-7GKJ

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

Relevant identified uses: production of mixtures for industry (liquid component).

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: Ludwika Spiessa 9, 20-270 Lublin, POLAND

Phone: +48 814754442;

E-mail address of the person responsible for the information card: office@chemnovatic.com

1.4. Emergency telephone number

112 (general emergency phone number)

Section 2: Hazards Identification

2.1. Classification of the substance or mixture

Classification according to 1272/2008/EC

Acute Tox. 3 (oral) - Acute toxicity, category 3; H301

Acute Tox. 3 (skin) - Acute toxicity, category 3; H311

Acute Tox. 4 (inhalation) - Acute toxicity, category 4; H332

Aquatic Chronic Toxicity, category 3; H412

This mixture is not classified for its physical hazards under CLP.

2.2. Label elements

Hazard symbols and signal words



DANGER

Hazard statements

H301+H311 Toxic if swallowed or in contact with skin.

H332 Harmful if inhaled.

H412 Harmful 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/doctor.

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

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



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P405 Store locked up.

P501 Dispose of contents/container to container for waste.

2.3. Other hazards

This mixture does not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation. Product does not have endocrine disrupting properties. No other hazards to determine. This mixture does not contain "Substances of Very High Concern" on the list published by the European Chemicals Agency (ECHA) pursuant to Art. 57 of the REACH regulation.

Section 3: Composition/Information on ingredients

3.2. Mixtures

Composition:

No.	Chemical name	Percentage	CAS	EC (EINECS)	Index No./ Registration No.	REACH	Classification according to 1272/2008/EC
1.	1,2-propanediol	~90,37 %	57-55-6	200-338-0	None/ 01-2119456809-23-XXXX		Not classified
2.	Nicotine	~9,64 %	54-11-5	200-193-3	614-001-00-4/ 01-2120066934-47-0004, 01-2120066934-47-0011		Acute Tox. 2 H310; Acute Tox. 2 H300; Acute Tox. 2 H330; Aquatic Chronic 2 H411; inhalation: ATE = 0,19 mg/L (dusts or mists); skin: ATE = 70 mg/kg; oral: ATE = 5 mg/kg

Full text of H - phrases in section 16.

Section 4: First aid measures

4.1. Description of first aid measures

As a general rule, in case of doubt, or when symptoms persist, always call a physician. NEVER make an unconscious person vomit.

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

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.



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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: adjust the extinguishing agent to the material collected in the environment.

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 and acrolein, 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 passed 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. References 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. No smoking, eating or drinking in areas where the mixture is used. Remove contaminated clothing before entering dining areas and wash clothing before reuse. 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. Shake before use.

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. After opening seal the container and store in an upright position to prevent leakage. Avoid heat and ignition sources. Store at 0-10 °C.



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7.3. Specific end use(s)

No information about the applications other than those listed in subsection 1.2.

Section 8: Exposure control/personal protection

8.1. Control parameters

Specification	STEL 15 min	TWA 8 hour
propylene glycol [CAS 57-55-6]	-	10 mg/m ³
nicotine [CAS 54-11-5]	-	0,5 mg/m ³ (skin)

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.

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

a) Physical state:	liquid
b) Colour:	colorless to pale yellow
c) Odour:	characteristic
d) Melting point/freezing point:	not determined
e) Boiling point or initial boiling point and boiling range:	not determined
f) Flammability:	not determined
g) Lower and upper explosion limit:	not determined
	2,4 %/17,4 % (for propylene glycol)
h) Flash point:	not determined
i) Auto-ignition temperature:	not applicable
j) Decomposition temperature:	not determined



k) pH:	9,5 – 10,5
l) Kinematic viscosity:	not determined
m) Solubility:	soluble in water
n) Partition coefficient n-octanol/water (log value):	not applicable
o) Vapour pressure:	20 Pa (for propylene glycol)
p) Density and/or relative density:	1,04 g/cm ³
q) Relative vapour density:	not determined, 5,6 (for nicotine)
r) Particle characteristics:	not applicable

9.2. Other information

No additional test results.

Section 10: Stability and reactivity

10.1. Reactivity

Product reactive, may react with strong oxidants, phosphorus oxide, nitric and sulfuric acids and derivatives
See subsection 10.3-10.5.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

The product can react violently with strong oxidizing agents and acids.

10.4. Conditions to avoid

Avoid direct sunlight and sources of ignition and moisture.

10.5. Incompatible materials

Strong oxidizers, strong acids, reducing agents.

10.6. Hazardous decomposition products

Unknown.

Section 11: Toxicological information

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

a) Acute toxicity

ATEmix (skin): 726,14 mg/kg (Acute toxicity, category 3)

ATEmix (oral): 51,87 mg/kg (Acute toxicity, category 3)

ATEmix (inhalation): 1,97 mg/l (Acute toxicity, category 4)

Based on the calculation method from the components.

b) Skin corrosion/irritation

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

c) Serious eye damage/irritation

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

d) Respiratory or skin sensitization

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

e) Germ cell mutagenicity

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

**f) Carcinogenicity**

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

g) Reproductive toxicity

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

h) STOT-single exposure

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

i) STOT-repeated exposure

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

j) 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**

According to CLP and the calculation method $(100 * 0) + (10 * 9,64 \%) + 0 = 96,4 \% \geq 25 \%$. The criteria for environmental toxicity are met. Aquatic Chronic toxicity, category 3.

12.2. Persistence and degradability

Propylene glycol: 81% after 28 days of the OECD 301F test
96% after 64 days of the OECD 301F test

Biodegradation may proceed slowly in anaerobic conditions

Biodegradation in water - screening tests: Readily biodegradable (100 %)

Nicotine:

Biodegradation in freshwater - screening tests: Readily biodegradable (100 %)

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

12.3. Bioaccumulative potential

Nicotine: Log Pow = 1,17 @ 18 °C

Propylene Glycol:

Possibility of bioconcentration is low (BCF <100 or log Pow <3) breakdown factor, n-octanol/water (log Pow): -1.07 @ 20.5 °C and pH 6.2 - 6.4 method EU A.8 Bioconcentration factor: 0,09.

Bioaccumulation potential: No bioaccumulation potential

12.4. Mobility in soil

Product mobile in soil and in water. Mobility of components in the mixture depends on the hydrophilic and hydrophobic properties and conditions of biotic and abiotic soil, including its structure, climatic conditions, seasons and soil organisms.

12.5. Results of PBT and vPvB assessment

The product does not meet the criteria for PBT or vPvB in accordance with the criteria in Annex XIII of Regulation 1907/2006.

12.6. Endocrine disrupting properties

Does not possess any endocrine disrupting properties.

12.7. Other adverse effects

This product has no influence on the global warming or the ozone layer depletion. Consider other harmful effects of the individual components of the mixture on the environment (eg impact on the growth of global warming).



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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. Submit to neutralization by a licensed waste processing company.

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. Submit to neutralization by a licensed waste processing company.

Proper waste management of the mixture and / or container should be determined in accordance with the provisions of Directive 2008/98 / EC.

Section 14: Transport Information

14.1 UN number or ID number

3144

14.2 UN proper shipping name

NICOTINE PREPARATION, LIQUID, N.O.S. (contains nicotine).

14.3 Transport hazard class(es)

6.1

14.4 Packing group

III

14.5 Environmental hazards

The mixture is not classified as dangerous for the environment.

14.6 Special precautions for user

Use protective measures according to section 8

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

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) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

There is no data concerning chemical safety assessment performed for substances contained in the mixture.



Section 16: Other Information

a) revised safety data sheet- changes

Update of all sections based on current information available.

Version 3.0 - New MSDS format update and company address update.

b) legend to abbreviations and acronyms used in the safety data sheet

TWA	Time Weighted Average
PEL	Permissible exposure limit
TLV-C	Threshold limit value- Ceiling Limit
STEL	Short-term exposure limit
PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance
CAS	Chemical Abstract Service
EC No.	is a unique seven-digit identifier that is assigned to chemical substances for regulatory purposes within the European Union by the regulatory authorities.
LD50	lethal dose, the point where 50% of test subjects exposed would die
LC50	lethal concentration, the point where 50% of test subjects exposed would die
EC50	half maximal effective concentration
UN number	is four-digit number that identify hazardous substances
ATEmix	Acute Toxicity Estimates for mixture
PEB	permitted exposure for a biological material

c) list of relevant H phrases, hazard statements, safety phrases and/or precautionary statements- full text

H300 Fatal if swallowed

H310 Fatal in contact with skin

H330 Fatal if inhaled

H411 Toxic to aquatic life with long lasting effects

d) 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.

e) other data

Classification was made on the basis of data on hazardous substances calculation method based on the guidelines of Regulation 1272/2008/EC (CLP).

The above information is prepared on the basis of current state of knowledge and relates to the product in the form in which it is used. Data relating to the product are presented in order to include safety requirements, and not to guarantee their particular properties.

In the event when conditions of application of the product are beyond control of the manufacturer, responsibility for safe use of the product is borne by the user.

The Employer is obligated to inform all employees who have contact with the product, about hazards and personal protection equipment specified in this material safety data sheet.

This material safety data sheet has been prepared on the basis of MSDS provided by the manufacturer and/or web databases and the binding regulations regarding hazardous substances and chemical agents.

The product is classified as hazardous. EXPOSURE SCENARIOS are not required.