

Prepared in accordance with Regulation (EC) No 1907/2006 of the European Parliament of the Council from 18th of December 2006.

Creation date: 14.06.2018

Revision date: 20.04.2023

Version: 2.1

Nicotine Lactate

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

1.1. Product identifier

Nicotine Lactate

CAS No.: 15197-02-1

EC/List No.: 828-493-5

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

Product intended for further processing. Not intended for retail sale without further processing'Uses advised against:

Uses advised against:

Aromatization of cosmetic products. Any other than the above.

1.3. Details of the supplier of the safety data sheet

A-Sense Limited Liability Company

Puławy Science and Technology Park

ul. Ignacego Mościckiego 1, 24-110 Puławy

telephone: +48 733 014 440

A-Sense Sp. z o.o.

e-mail: kontakt@a-sense.pl

Details of the person responsible for the Safety Data Sheet: kontakt@a-sense.pl

1.4. Emergency phone number

Emergency number: 112

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification of the substance according to Regulation 1272/2008:

Acute Tox. 2; H300 Fatal if swallowed.

Acute Tox. 2; H310 Fatal in contact with skin.

Acute Tox. 2; H330 Fatal if inhaled.

Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H300 Fatal if swallowed.

H310 Fatal in contact with skin.

Prepared in accordance with Regulation (EC) No 1907/2006 of the European Parliament of the Council from 18th of December 2006.

Creation date: 14.06.2018
Revision date: 20.04.2023

Version: 2.1

Nicotine Lactate

H330 Fatal if inhaled.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P262 Do not get in eyes, on skin, or on clothing.
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.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container at authorised collection point in accordance with local and national regulations.

2.3. Other hazards

Information not available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Concentration	Classification according to Regulation 1272/2008:
Nicotine Lactate CAS No.: 15197-02-1 EC/List No.: 828-493-5	~100%	Acute Tox. 2; H300 Acute Tox. 2; H310 Acute Tox. 2; H330 Aquatic Chronic 2; H411

SECTION 4: First aid measures

4.1. Description of first aid measures

The aid giver should take care of his own safety first.
The victim should be protected from the substance if possible. In case of loss of consciousness or cardiac arrest - immediately call the emergency services.

After skin contact

Seek medical advice if irritation or other discomfort occurs.

After swallowing

Rinse mouth with water. Remove the exposed person to fresh air. If the material has been swallowed and the exposed person is conscious, give a small amount of water to drink. Discontinue if the exposed person is nauseous, as vomiting can be dangerous. Never give anything to an unconscious person. In case of unconsciousness, put in the lateral fixed position. In case of cardiac arrest - perform CPR.

After inhalation

Remove the exposed person to fresh air. Provide warmth and calmness. In case of unconsciousness, place in the lateral fixed position and call medical help immediately. In case of cardiac arrest - call for medical help and perform CPR.

After eye contact

Remove contact lenses. Rinse eyes with eyelids rolled back for 10-15 minutes with running water. In case of persistent irritation - seek medical advice.

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

After skin contact possible irritation, rash, hives - contact a doctor, show safety data sheet or label. Irritation may be due to personal conditions - some people may be more sensitive to chemicals.

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

Symptomatic treatment.

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Revision date: 20.04.2023

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Nicotine Lactate

SECTION 5: Firefighting measures

5.1. Extinguishing agents

Suitable extinguishing media: extinguishing foam, extinguishing powder, water spray, CO₂ (carbon dioxide).

Unsuitable extinguishing media: Compact stream of water

5.2. Special hazards arising from the substance or mixture

Avoid combustion products. Carbon dioxide, carbon monoxide, nitrogen oxides may be released during combustion.

5.3. Information for firefighters

If necessary during the firefighting operation, use isolating respiratory equipment, appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate workers to a safe place. Ensure adequate ventilation in the premises. Avoid inhalation of vapors, mist, spray. Use personal protective equipment - protective clothing against chemical agents. In case of the possibility of uncontrolled release, use breathing apparatus with positive pressure.

6.2. Environmental precautions

Do not allow the released substance, its solutions or washings to enter sewage sumps and groundwater and water supply systems. Dispose of in accordance with applicable law.

6.3. Methods and materials for containment and cleaning up

Collect the spill, washings with absorbent mats, sorbent, diatomaceous earth and send for disposal to a specialized plant. Collect solid parts mechanically.

6.4. References to other sections

Use appropriate personal protective equipment listed in Section 8 of the Safety Data Sheet during the removal action.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid creating vapors/fumes. Provide effective ventilation in enclosed areas. Do not heat the product.

7.2. Conditions for safe storage, including information any incompatibilities

Store in a cool and airy place.

7.3. Specific end use(s)

Not known.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Name	CAS No.	Control parameters	Legal basis
-	-	-	ORDINANCE MINISTER OF LABOR AND SOCIAL POLICY from 12th of June 2018 on the maximum permissible concentrations and intensities of harmful factors health in the work

8.2. Exposure controls

Hand skin protection:

- For frequent exposure: butyl rubber protective gloves, breakthrough time >180 min (EN ISO 374:2016);
for occasional exposure: nitrile protective gloves, breakthrough time >30 min (EN ISO 374:2016).

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Creation date: 14.06.2018
Revision date: 20.04.2023

Version: 2.1

Nicotine Lactate

Respiratory protection:

- For occasional exposure provide efficient ventilation, for frequent exposure: respirator - filter class recommended P3 according to EN 143

Eye protection

- Google protection with side protection according to EN 166 standard

Body protection

- Protective clothing against chemical agents. Clothing should be selected according to the planned time of contact with the substance and the amount of the substance in the workplace. It is recommended to use personal protective equipment in accordance with EN943.

PPE should be regularly inspected, checking compliance with standards, validity, tightness, maintenance methods. Workers should be trained in the principles of proper use of personal protective equipment (putting on protective clothing, gloves, masks, goggles, proper removal, maintenance and storage).

General precautions: do not store the substance together with food products, animal feed, cosmetic products. Do not smoke, do not eat while handling the substance. After using the product, wash your hands and face with soap and water

Environmental exposure control:

Do not dispose of the substance into the sewage system do not allow it to enter the environment. Provide properly labeled containers for the used contaminated substance. Collect the spilled substance with a shovel and sweeper and dispose of in properly labeled waste containers.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state – liquid
- Color – colourless to straw
- Odor – characteristic, sharp
- Melting point / freezing point – Not available
- Boiling point or initial boiling point and boiling range : - > 35 °C (at 1013 hPa)
- Flammability of materials – Not available
- Upper / lower flammability limit or upper / lower explosion limit – Not available
- Flash point – Not available
- Auto-ignition temperature – Not available
- Decomposition temperature – Not available
- pH – 7.2 (10% water solution)
- Kinematic viscosity – Not available
- Solubility – Slightly soluble in water, soluble in propylene glycol
- Partition coefficient n-octanol / water (log value): – Not available
- Vapor pressure – Not available
- Density – Not available
- Relative vapor density – Not available
- Characterisation of molecules – Not applicable

9.2. Other information

Not available

SECTION 10: Stability and reactivity

10.1. Reactivity

The substance is not reactive under normal conditions of use and storage.

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Nicotine Lactate

10.2. Chemical stability

The product is stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

The substance may react dangerously with strong acids and bases, peroxides.

10.4. Conditions to avoid

Do not heat or burn.

Do not store in a brightly lit place.

10.5. Incompatible materials

Strong acids and bases and peroxides.

10.6. Hazardous decomposition products

Under normal storage conditions - hazardous decomposition products do not occur

SECTION 11: Toxicological information

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

a) Acute toxicity – The substance has been classified as toxic by oral, dermal and inhalation routes.

Nicotine	Fatal dose for half of the study population LD50=70 mg/kg, Rat, Van den Heuvel et al., 1990	Fatal dose for half of the study population LD50=50 mg/kg, Rabbit, Contraft- Nicotex-Tabacco (2015a)	Fatal dose for half of the study population (aerosol) LC50=0,19 mg/L, Rat, Shao et al., 2012
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b) Skin corrosion/irritation – The substance does not meet the criteria for classification

c) Serious eye damage/irritation – The substance does not meet the criteria for classification

d) Respiratory or skin sensitisation – The substance does not meet the criteria for classification

e) Germ cell mutagenicity – The substance does not meet the criteria for classification

f) Carcinogenicity – The substance does not meet the criteria for classification

g) Reproductive toxicity – The substance does not meet the criteria for classification

h) STOT-single exposure – The substance does not meet the criteria for classification

i) STOT-repeated exposure – The substance does not meet the criteria for classification

j) Aspiration hazard – The substance does not meet the criteria for classification

Nicotine is an agonist of nicotinic receptors in the peripheral and central nervous system. In an oral toxicity study in rats conducted with nicotine hydrogen tartrate, the substance was administered to pregnant and non-pregnant female rats in drinking water for 10 days at doses equivalent to 1.25 and 2.5 mg / kg / day. The animals showed mild fatty change, mild focal necrosis and mild dark cell change, with effects on mitochondria, in a dose-proportional manner. Effects at the lower dose were not statistically significant, so the NOAEL was identified as 1.25 mg / kg / day; the LOAEL was identified as 2.5 mg / kg / day. According to various authorities, nicotine is neither an initiator nor a promoter of cancer in rodents. No relevant acute toxicological data were available during the literature search.

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Creation date: 14.06.2018
Revision date: 20.04.2023

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Nicotine Lactate

Long-term exposure to nicotine can cause physical defects in the developing embryo (teratogenesis) . Nicotine is a tumour promoter in rodents.

11.1.5. Information on the likely routes of exposure

Exposure via the oral route - intentional ingestion of the substance is of low probability due to the pungent, burning taste. The use of Personal Protective Equipment reduces the risk. In case of ingestion, the following may occur: respiratory agitation, nausea, vomiting, headaches and dizziness, collapse and death.

Exposure by inhalation - due to the form, exposure by inhalation is of low probability but not impossible. Use of Personal Protective Equipment (PPE) can reduce the risk. Symptoms following inhalation exposure: respiratory agitation, nausea, vomiting, headaches and dizziness, collapse and death.

Dermal exposure is likely - especially when handling the product. The use of Personal Protective Equipment (PPE) can reduce the risk. Symptoms following dermal exposure include shortness of breath, nausea, skin irritation and redness, skin rash, vomiting, headaches and dizziness, collapse and death.

11.1.6. Symptoms related to physical, chemical and toxicological properties

Symptoms of acute poisoning include shortness of breath, nausea, vomiting, headaches and dizziness and, in large doses, collapse and death.

11.1.7. Delayed, immediate and chronic effects from short- and long-term exposure

Immediate effects of short- and long-term exposure: respiratory agitation, nausea, vomiting, headache and dizziness, diarrhoea, tachycardia, increased blood pressure and sweating and drooling

Chronic effects from short and long-term exposure: not known.

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties

There are no known reports that the substance has effects on the human endocrine system according to Regulations (EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605.

11.2.2. Other information

Not known

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic organisms with long lasting effects.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

None of the ingredients are bioaccumulative.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

According to Annex XII of the RACH Regulation, the substance does not meet the PBT/vPvB criteria (persistent and bioaccumulative and very persistent and very bioaccumulative substances).

12.6. Endocrine disrupting properties

The endocrine system is not expected to be affected by the substances in the mixture.

12.7. Other adverse effects

Not know

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Creation date: 14.06.2018

Version: 2.1

Revision date: 20.04.2023

Nicotine Lactate

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste at specialised waste collection and treatment facilities. The waste code is assigned at the place of origin.

Dispose of waste in accordance with:

- Directive 2008/98 / EC of the European Parliament and of the Council
- Act from 14th of December 2012 on waste, as amended

SECTION 14: Transport information

14.1. UN number or ID number

UN 3144
IMDG: 3144
IATA: 3144

14.2. UN proper shipping name

ADR/RID: NICOTINE COMPOUND, LIQUID, N.O.S. (Nicotine Lactate)
IMDG: NICOTINE COMPOUND, LIQUID, N.O.S. (Nicotine Lactate)
IATA: NICOTINE COMPOUND, LIQUID, N.O.S. (Nicotine Lactate)

14.3. Transport hazard class(es)

ADR/RID: 6.1
IMDG: 6.1
IATA: 6.1

14.4. Packing group

ADR/RID: II
IMDG: II
IATA: II

14.5. Environmental hazards

ADR/RID: Yes
IMDG Marine pollutant: Yes
IATA: No

14.6. Special precautions for user

See to Section 6,7,8

14.7. Bulk maritime transport in accordance with IMO instruments

Not applicable

SECTION 15: Regulatory information

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency (EC) as amended.
- 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.
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council from 16th of December 2008 on classification, labeling and packaging of substances and mixtures, as amended changes.
- The Act from 14th of December 2012 on waste, as amended.
- The Act from 25th of February 2011 on chemical substances and their mixtures with subsequent ones changes.
- The Act from 26th of January 2022 amending the Road Transport Act, the Drivers' Hours Act and certain other acts.

15.2. Chemical safety assessment

A chemical safety assessment is not required for this substance.

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Creation date: 14.06.2018
Revision date: 20.04.2023

Version: 2.1

Nicotine Lactate

SECTION 16: Other information

Abbreviation and acronyms

- ADR: Accord européen sur le transport des marchandises dangereuses par Route
- CAS Chemical Abstracts Service
- IARC: International Agency For Research On Cancer
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
- OECD - Organisation for Economic Co-operation and Development
- PBT: Persistent bioaccumulative toxic
- PNEC - Predicted no-effect concentration
- vPvB: very Persistent, very Bioaccumulative

Changes made:

Amendment to Section 1, subsections 1.2.

The information contained in this Safety Data Sheet has been compiled to the best knowledge of the compiler. The information contained in this document does not take into account all situations that may occur in the workplace. Before handling the substance, personnel should be trained in the handling of the substance, in the use of personal protective equipment and in premedical first aid. The preparation of mixtures with this substance should be preceded by a thorough analysis of the hazards arising from the physicochemical and toxicological properties - posing a risk to man and the environment.

End of Safety Data Sheet