
Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Nicotine malate
Product Number : Q13528
CAS Number : 73057-36-0

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

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : ChemUniverse, Inc.
296 Howard Ave
Des Plaines IL 60018, USA
Telephone : +1 847-627-5617
Fax : +1 224-361-3430

1.4 Emergency telephone number

Emergency Phone # : +1 847-627-5617

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Acute Tox. 2 (oral) - Acute toxicity, category 2; H300

Acute Tox. 1 (skin) - Acute toxicity, category 1; H310

Acute Tox. 2 (inhalation) - Acute toxicity, category 2; H330

Aquatic Chronic Toxicity, category 2: H411

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

2.2. Label elements

Hazard symbols and signal words



SIGNAL WORD DANGER

Hazard statements

H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.

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/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.
 P405 Store locked up.
 P501 Dispose of contents/container to container for waste.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS
 None

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Synonym : (S)-3-(1-Methyl-2-pyrrolidinyl)pyridine malate
 Molecular Formula : C₁₈H₂₆N₂O₁₀
 Molecular weight : 430.4
 CAS Number : 73057-36-0

No.	Chemical name	Percentage	Classification according to 1272/2008/EC
1.	Nicotine malate	<= 100 %	Acute Tox. 1 H310; Acute Tox. 2 H300; Acute Tox. 2 H330; Aquatic Chronic 2 H411 inhalation: ATE = 0,05 mg/L (dusts or mists); dermal: ATE = 5 mg/kg bw; oral: ATE = 5 mg/kg bw

Full text of H - phrases in section 16.

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

At **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. 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.

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, 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.

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) or pick up dry with a shovel. Collect spilled or scattered 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.

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 vapors. 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. Keep out of the reach of children.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Specification	STEL 15 min	TWA 8 hour
nicotine malate [CAS 73057-36-0]	Not Available	Not Available

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

8.1. Exposure controls

Use the product in accordance with good occupational hygiene and safety practices. Ensure adequate ventilation. When handlings 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.

Personal protection

The necessity to use and selection of appropriate personal protective equipment should take into account the type of hazard posed by the product, workplace conditions and the manner of handling the product. Applied personal protective equipment must comply with the requirements of the Regulation 2016/425/EU. The employer is obliged to provide protective equipment relevant to performed activities and in accordance with all quality requirements, including its maintenance and cleaning. Any contaminated or damaged personal protective equipment must be replaced immediately.

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

Depending on the exposure level, use goggles compliant with the EN 166 standard or tight protective goggles or face protection.

Respiratory protection

Depending on the exposure level use a mask with an absorber and ensuring adequate ventilation. In case of normal 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 substance to contaminate surface water/ground water.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	White to off-white solid
b) Odor	Characteristic
c) Odor Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available

i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	No data available
l)	Vapor density	No data available
m)	Relative density	No data available
n)	Water solubility	No data available
o)	Partition coefficient: octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1. Reactivity

Product may react with incompatible materials to release other hazardous substances. See other subsection.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Avoid direct sunlight and sources of ignition. Avoid heating closed containers above 95°C.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

None. Releases carbon oxides, nitrogen oxides in case of fire.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

a) Acute toxicity

Acute toxicity, skin, category 1

Acute toxicity, oral, category 2

Acute toxicity, inhalation category 2

dermal: ATE = 5 mg/kg bw;

oral: ATE = 5 mg/kg bw;

inhalation: ATE = 0,05 mg/L (dusts or mists).

According to harmonized CLP classification for nicotine salts: index no. 614-002-00-X.

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

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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.

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

The criteria for environmental toxicity are met. Aquatic Chronic toxicity, category 2. According to harmonized CLP classification for nicotine salts: index no. 614-002-00-X.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Do not expect to significantly bioaccumulate.

12.4. Mobility in soil

Product mobile in soil and in water. Mobility 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.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

In accordance with the local legislation. Store remaining in original containers. Do not empty into drains. Submit to neutralization by a licensed waste processing company.

Contaminated packaging

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.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1655

Class: 6.1

Packing group: II

Proper shipping name: Nicotine compound, solid, n.o.s. (Nicotine Malate)

Reportable Quantity (RQ): 100 lbs

Poison Inhalation Hazard: No

IMDG

UN number: 1655

Class: 6.1

Packing group: II EMS-No: F-A, S-A

Proper shipping name: Nicotine compound, solid, n.o.s. (Nicotine Malate)

Marine pollutant: Yes

IATA

UN number: 1655

Class: 6.1

Packing group: II

Proper shipping name: Nicotine compound, solid, n.o.s. (Nicotine Malate)

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

CAS Number	Revision Date
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SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

CAS Number	Revision Date
Nicotine malate	73057-36-0

Pennsylvania Right To Know Components

CAS Number	Revision Date
Nicotine malate	73057-36-0

California Prop. 65 Components

CAS Number	Revision Date
Nicotine malate	73057-36-0

which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. ChemUniverse, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See www.chemuniverse.com for additional terms and conditions of sale.

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