# Chemical Safety Data Sheet MSDS / SDS

# **1-AMINONONANE**

Revision Date:2023-11-29 Revision Number:1

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

# **Product identifier**

Product name	: 1-AMINONONANE				
CBnumber	: CB1756805				
CAS	: 112-20-9				
EINECS Number	: 203-945-9				
Synonyms	: Nonylamine, 1-AMINONONANE				
Relevant identified uses of the substance or mixture and uses advised against					
Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.				
Uses advised against	: none				
Company Identification					
Company	: Chemicalbook				
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing				
Telephone	: 400-158-6606				

# SECTION 2: Hazards identification

# GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word

Danger

### Precautionary statements

P405 Store locked up.

P310 Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

### Hazard statements

H411 Toxic to aquatic life with long lasting effects

H401 Toxic to aquatic life

H400 Very toxic to aquatic life

H318 Causes serious eye damage

H314 Causes severe skin burns and eye damage

H227 Combustible liquid

# SECTION 3: Composition/information on ingredients

# Substance

Product name	: 1-AMINONONANE
Synonyms	: Nonylamine, 1-AMINONONANE
CAS	: 112-20-9
EC number	: 203-945-9
MF	: C9H21N
MW	: 143.27

# SECTION 4: First aid measures

# Description of first aid measures

## General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

## If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

# Indication of any immediate medical attention and special treatment needed

No data available

# **SECTION 5: Firefighting measures**

# **Extinguishing media**

# Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

#### Special hazards arising from the substance or mixture

Carbon oxides Nitrogen oxides (NOx) Combustible.

Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

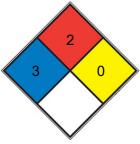
## Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### **Further information**

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **NFPA 704**



HEALTH	3	Short exposure could cause serious temporary or moderate residual injury (e.g. liquid hydrogen, sulfuric acid, calcium hypochlorite, hexafluorosilicic acid)
FIRE	2	Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur and multiple finely divided suspended solids that do not require heating before ignition can occur. Flash point between 37.8 and 93.3 °C (100 and 200 °F). (e.g. diesel fuel, <u>sulfur</u> )
REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, <u>N2</u> )
SPEC. HAZ.		

# SECTION 6: Accidental release measures

# Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

#### **Environmental precautions**

Do not let product enter drains.

# Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb?). Dispose of properly. Clean up affected area.

## Reference to other sections

For disposal see section 13.

# SECTION 7: Handling and storage

# Precautions for safe handling

## Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

### Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

## Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

## Conditions for safe storage, including any incompatibilities

# Storage conditions

Tightly closed.

### Specific end use(s)

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

# SECTION 8: Exposure controls/personal protection

### control parameter

#### Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

## **Exposure controls**

### Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly

fitting safety goggles

**Body Protection** 

#### protective clothing

**Respiratory protection** 

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the

instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

# SECTION 9: Physical and chemical properties

# Information on basic physicochemical properties

Appearance	colorless clear, liquid
Odour	No data available
Odour Threshold	No data available
рН	>7 (H2O, 20°C)(undiluted)
Melting point/freezing point	-1 °C
Initial boiling point and boiling range	201 °C - lit.
Flash point	74 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive	No data available
limits	
Vapour pressure	0.37 hPa (25 °C)
Vapour density	No data available
Relative density	0,782 g/cm3 at 25 °C - lit. No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	log Pow: 3,22
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available

# Other safety information

No data available

# SECTION 10: Stability and reactivity

# Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

#### **Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .

# Possibility of hazardous reactions

Violent reactions possible with: Strong oxidizing agents acid halides Acid anhydrides acids

Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines!

## Conditions to avoid

Strong heating.

#### Incompatible materials

No data available

## Hazardous decomposition products

In the event of fire: see section 5

# SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

LD50 Oral - 500,01 mg/kg Remarks: No data available LC50 Inhalation - 4 h - 11 mg/l LD50 Dermal - 1.100 mg/kg

#### Skin corrosion/irritation

No data available

## Serious eye damage/eye irritation

No data available

### Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

**Reproductive toxicity** 

No data available

Specific target organ toxicity - single exposure

No data available

#### Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

# SECTION 12: Ecological information

# Toxicity

#### Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 2,16 mg/l - 96 h

## Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 1,6 mg/l - 48 h

# Toxicity to algae

EC50 - Algae - 0,23 mg/l - 72 h

## Persistence and degradability

No data available

## **Bioaccumulative potential**

No data available

## Mobility in soil

No data available

# Results of PBT and vPvB 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.

# Other adverse effects

No data available

# SECTION 13: Disposal considerations

# Waste treatment methods

## Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

# SECTION 14: Transport information

### **UN number**

ADR/RID: 2735 IMDG: 2735 IATA: 2735

# UN proper shipping name

ADR/RID: AMINES, LIQUID, CORROSIVE, N.O.S. (nonylamine) IMDG: AMINES, LIQUID, CORROSIVE, N.O.S. (nonylamine)

IATA: Amines, liquid, corrosive, n.o.s. (nonylamine)

# Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

# Packaging group

ADR/RID: II IMDG: II IATA: II

# **Environmental hazards**

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

# Special precautions for user

No data available

# SECTION 15: Regulatory information

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

 Regulations on the Safety Management of Hazardous Chemicals

 China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

 Measures for Environmental Management of New Chemical Substances

 Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

 EC Inventory:Listed.

 Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

 New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

 Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

 European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

 Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: https://www.mee.gov.cn/

 United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

# **SECTION 16: Other information**

# Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

[1] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

- [2] ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- [3] ECHA European Chemicals Agency, website: https://echa.europa.eu/
- [4] eChemPortal The Global Portal to Information on Chemical Substances by OECD, website:

http://www.echemportal.org/echemportal/index?pageID=0&request\_locale=en

- [5] ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- [6] Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- [7] HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- [8] IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- [9] IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- [10] Sigma-Aldrich, website: https://www.sigmaaldrich.com/

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