

Safety Data Sheet

N-Octylamine

Revision date : 2023/10/06
Version: 5.0

Page: 1/13
(30036812/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

N-Octylamine

Recommended use of the chemical and restriction on use

Recommended use*: Chemical used in synthesis and/or formulation of industrial products
Recommended use*: Chemical

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Molecular formula:	C(8)H(19)N
Chemical family:	amine
Synonyms:	1-Octanamine Caprylamine, 1-Aminooctane

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Flam. Liq.	3	Flammable liquids
Acute Tox.	3 (oral)	Acute toxicity

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 2/13
(30036812/SDS_GEN_US/EN)

Acute Tox.	4 (Inhalation - mist)	Acute toxicity
Acute Tox.	3 (dermal)	Acute toxicity
Skin Corr./Irrit.	1A	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation
STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
Aquatic Acute	1	Hazardous to the aquatic environment - acute
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:



Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H314	Causes severe skin burns and eye damage.
H301 + H311	Toxic if swallowed or in contact with skin.
H411	Toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P260	Do not breathe dust/mist/vapours.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P264	Wash contaminated body parts thoroughly after handling.
P242	Use non-sparking tools.
P240	Ground and bond container and receiving equipment.

Precautionary Statements (Response):

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 3/13
(30036812/SDS_GEN_US/EN)

P310	Immediately call a POISON CENTER or physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P391	Collect spillage.
P370 + P378	In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.

Precautionary Statements (Storage):

P233	Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

octylamine

CAS Number: 111-86-4
Content (W/W): >= 99.8 - <= 99.9%
Synonym: 1-Octanamine; Octylamine

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

If on skin:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

Remove contaminated clothing.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical assistance.

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 4/13
(30036812/SDS_GEN_US/EN)

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., Further symptoms are possible

Information on: octylamine

Symptoms: Overexposure may cause:, corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
No particular hazards known.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Further accidental release measures:

An explosive atmosphere can be formed in the case of a spillage. If large amounts are released contact the fire service.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures, see section 8. Keep unprotected persons away. Avoid all sources of ignition: heat, sparks, open flame. Avoid inhalation. Avoid contact with the skin, eyes and clothing.

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 5/13
(30036812/SDS_GEN_US/EN)

Environmental precautions

Substance/product is RCRA hazardous due to its properties. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Keep away from sources of ignition - No smoking. Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Vapours may form explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Conditions for safe storage, including any incompatibilities

Segregate from acids and acid forming substances.

Suitable materials for containers: Carbon steel (Iron), Stainless steel 1.4301 (V2), Stainless steel 1.4541, Stainless steel 1.4401, Stainless steel 1.4571, Low density polyethylene (LDPE), High density polyethylene (HDPE), glass

Further information on storage conditions: Avoid extreme heat. Keep away from sources of ignition - No smoking.

Storage stability:

Storage duration: 24 Months

From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced.

8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 6/13
(30036812/SDS_GEN_US/EN)

Body protection:

chemical-protection suit (f.e. according to EN 14605)

General safety and hygiene measures:

Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to prevent contact. Take off immediately all contaminated clothing. Store work clothing separately.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	faint odour, ammonia-like	
Odour threshold:	Not determined since harmful by inhalation.	
Colour:	colourless to yellow	
pH value:	11.8 (100 g/l, 25 °C)	(DIN 19268)
Melting point:	2 °C	(DIN ISO 3016)
Boiling point:	178 °C (1,013.25 hPa)	(OECD Guideline 103)
Sublimation point:	No applicable information available.	
Flash point:	58 °C	(ISO 2719, closed cup)
Flammability:	Flammable liquid and vapour.	(derived from flash point)
Lower explosion limit:	For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	275 °C	(DIN 51794)
SADT:	Study scientifically not justified.	
Vapour pressure:	7 hPa (51.37 °C) dynamic 0.81 hPa (20 °C) static	(Directive 92/69/EEC, A.4) (measured)
Density:	0.779 g/cm3 (25 °C) Literature data. 0.753 g/cm3 (55 °C)	(other)
Vapour density:	No applicable information available. > 1 (20 °C) Heavier than air.	(estimated)
Partitioning coefficient n-octanol/water (log Pow):	3.46 (20 °C)	(Regulation 440/2008/EC, A.8)
Self-ignition temperature:	not self-igniting	
Thermal decomposition:	460 °C, > 190 kJ/kg (DSC (DIN 51007)) Thermal decomposition above the indicated temperature is possible. It is not a self-decomposable substance.	

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 7/13
(30036812/SDS_GEN_US/EN)

Viscosity, dynamic:	1.371 mPa.s (20 °C)	(DIN 51562)
Viscosity, kinematic:	No applicable information available.	
Particle size:	The substance / product is marketed or used in a non solid or granular form.	
Solubility in water:	320 mg/l (20 °C)	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	No applicable information available.	
Molar mass:	129.25 g/mol	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	

10. Stability and Reactivity

Reactivity

Corrosion to metals:
Corrosive effects to metal are not anticipated.

Oxidizing properties:
not fire-propagating

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
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Chemical stability

Possibility of hazardous reactions

The product is chemically stable.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid electro-static charge.

Incompatible materials

mineral acids

Hazardous decomposition products

Decomposition products:

Possible thermal decomposition products: carbon monoxide, carbon dioxide, toxic gases/vapours, nitrogen oxides

Thermal decomposition:

460 °C (DSC (DIN 51007))

Thermal decomposition above the indicated temperature is possible. It is not a self-decompositionable substance.

11. Toxicological information

Primary routes of exposure

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 8/13
(30036812/SDS_GEN_US/EN)

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of high toxicity after single ingestion. Of pronounced toxicity after short-term skin contact. Of moderate toxicity after short-term inhalation.

Oral

Type of value: LD50
Species: rat (male/female)
Value: < 200 mg/kg (similar to OECD guideline 401)

Inhalation

Type of value: LC50
Species: rat (male/female)
Value: 1.6 mg/l (BASF-Test)
Exposure time: 4 h
An aerosol was tested.

Dermal

Type of value: LD50
Species: rabbit
Value: > 200 - < 2,000 mg/kg

Assessment other acute effects

Assessment of STOT single:
Causes temporary irritation of the respiratory tract.

Irritation / corrosion

Assessment of irritating effects: Highly corrosive! Damages skin and eyes.

Skin

Species: rabbit
Result: strongly corrosive
Method: similar to OECD guideline 404

Eye

Species: rabbit
Result: strongly corrosive
Method: similar to OECD guideline 405

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Mouse ear swelling test (MEST)

Species: mouse
Result: Non-sensitizing.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 9/13
(30036812/SDS_GEN_US/EN)

Repeated dose toxicity

Assessment of repeated dose toxicity: No adverse effects were observed after repeated oral exposure in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria. No mutagenic effect was found in various tests with mammalian cell culture and mammals. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422). The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The results were determined in a Screening test (OECD 421/422). The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See SDS section 11 - Toxicological information.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish

LC50 (96 h) 17.8 mg/l, *Leuciscus idus* (DIN 38412 Part 15)

The details of the toxic effect relate to the nominal concentration.

LC50 (96 h) 5.19 mg/l, *Pimephales promelas* (Fish test acute)

The statement of the toxic effect relates to the analytically determined concentration. Literature data.

Aquatic invertebrates

EC50 (48 h) 3.24 mg/l, *Daphnia magna* (Directive 92/69/EEC, C.2, static)

The details of the toxic effect relate to the nominal concentration.

EC50 (48 h) 1.9 mg/l, *Daphnia magna* (OECD Guideline 202, part 1)

The statement of the toxic effect relates to the analytically determined concentration.

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 10/13
(30036812/SDS_GEN_US/EN)

Aquatic plants

EC50 (72 h) 0.23 mg/l (growth rate), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3)
The details of the toxic effect relate to the nominal concentration.

EC10 (72 h) 0.07 mg/l (growth rate), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3)
The details of the toxic effect relate to the nominal concentration.

Chronic toxicity to fish

No data available regarding toxicity to fish. Study not necessary due to exposure considerations.

Chronic toxicity to aquatic invertebrates

No data available regarding toxicity to daphnids. Study not necessary due to exposure considerations.

Assessment of terrestrial toxicity

No data available.
Study not necessary due to exposure considerations.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 aerobic
activated sludge, industrial/EC20 (30 min): approx. 200 mg/l
The details of the toxic effect relate to the nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Readily biodegradable (according to OECD criteria).

Elimination information

99 % DOC reduction (11 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)
Readily biodegradable (according to OECD criteria).

Assessment of stability in water

According to structural properties, hydrolysis is not expected/probable.

Information on Stability in Water (Hydrolysis)

According to structural properties, hydrolysis is not expected/probable.

Bioaccumulative potential

Assessment bioaccumulation potential

Accumulation in organisms is not to be expected.

Bioaccumulation potential

Bioconcentration factor: < 390 (calculated)
The product has not been tested. The statement has been derived from the structure of the product.
Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 11/13
(30036812/SDS_GEN_US/EN)

The data refer to the charged form of the substance.
Adsorption to solid soil phase is possible.
The data refer to the charged form of the substance.

13. Disposal considerations

Waste disposal of substance:

Dispose of in a RCRA-licensed facility. Do not discharge into waterways or sewer systems without proper authorization.

Container disposal:

Empty containers with less than 1 inch of residue may be landfilled at a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. If containers are not empty, they must be disposed of in a RCRA-licensed facility.

RCRA: D001

14. Transport Information

Land transport

USDOT

Hazard class:	8
Packing group:	I
ID number:	UN 2734
Hazard label:	8, 3, EHSM
Proper shipping name:	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (contains N-OCTYLAMINE)

Sea transport

IMDG

Hazard class:	8
Packing group:	I
ID number:	UN 2734
Hazard label:	8, 3, EHSM
Marine pollutant:	YES
Proper shipping name:	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (contains N-OCTYLAMINE)

Air transport

IATA/ICAO

Hazard class:	8
Packing group:	I
ID number:	UN 2734
Hazard label:	8, 3
Proper shipping name:	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (contains N-OCTYLAMINE)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 12/13
(30036812/SDS_GEN_US/EN)

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
100 LBS	142-82-5; 111-65-9; 111-26-2	heptane; octane; hexylamine

State regulations

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
PA	111-86-4	octylamine

NFPA Hazard codes:

Health: 3 Fire: 2 Reactivity: 0 Special:

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Acute Tox.	4 (Inhalation - mist)	Acute toxicity
Skin Corr./Irrit.	1A	Skin corrosion/irritation
Aquatic Acute	1	Hazardous to the aquatic environment - acute
Flam. Liq.	3	Flammable liquids
STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
Acute Tox.	3 (dermal)	Acute toxicity
Acute Tox.	3 (oral)	Acute toxicity
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic
Eye Dam./Irrit.	1	Serious eye damage/eye irritation

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2023/10/06

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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Safety Data Sheet

N-Octylamine

Revision date: 2023/10/06
Version: 5.0

Page: 13/13
(30036812/SDS_GEN_US/EN)

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