



SAFETY DATA SHEET

n-butylamine 99.9 +% extra pure

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

<i>Trade name:</i>	n-butylamine 99.9 +% extra pure
<i>Product no.:</i>	BAA934
<i>Other means of identification:</i>	Index No.: 612-005-00-0 EC No.: 203-699-2 CAS No.: 109-73-9

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

<i>Relevant identified uses of the substance or mixture:</i>	Industrial purposes, Laboratory use
<i>Uses advised against:</i>	None known.

1.3. Details of the supplier of the safety data sheet

<i>Company and address:</i>	Laboratoriumdiscounter Zandvoortstraat 75 1976BN IJmuiden Netherlands Tel: +31 255 700 210 www.laboratoriumdiscounter.nl/en/
<i>E-mail:</i>	info@laboratoriumdiscounter.nl
<i>Revision:</i>	09/03/2023
<i>SDS Version:</i>	1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 "First aid measures".

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Flam. Liq. 2; H225, Highly flammable liquid and vapour.
Met. Corr. 1; H290, May be corrosive to metals.
Acute Tox. 4; H302, Harmful if swallowed.
Acute Tox. 3; H311, Toxic in contact with skin.
Skin Corr. 1A; H314, Causes severe skin burns and eye damage.
Eye Dam. 1; H318, Causes serious eye damage.
Acute Tox. 3; H331, Toxic if inhaled.
STOT SE 3; H335, May cause respiratory irritation.

2.2. Label elements

Hazard pictogram(s):





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<i>Signal word:</i>	Danger
<i>Hazard statement(s):</i>	Highly flammable liquid and vapour. (H225) May be corrosive to metals. (H290) Harmful if swallowed. (H302) Toxic in contact with skin or if inhaled. (H311+H331) Causes severe skin burns and eye damage. (H314) May cause respiratory irritation. (H335)
<i>Safety statement(s):</i>	
<i>General:</i>	If medical advice is needed, have product container or label at hand. (P101) Keep out of reach of children. (P102)
<i>Prevention:</i>	Use only outdoors or in a well-ventilated area. (P271) Wear eye protection/protective gloves/protective clothing. (P280)
<i>Response:</i>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304+P340) Specific treatment (see instructions on this label). (P321)
<i>Storage:</i>	Store locked up. (P405)
<i>Disposal:</i>	Dispose of contents/container in accordance with local regulation. (P501)
<i>Hazardous substances:</i>	Butylamine
<i>Additional labelling:</i>	Not applicable.
2.3. Other hazards	
<i>Additional warnings:</i>	This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Product/substance	Identifiers	% w/w	Classification	Note
Butylamine	CAS No.: 109-73-9 EC No.: 203-699-2 UK-REACH: Index No.: 612-005-00-0	95-100%	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 3, H311 Skin Corr. 1A, H314 Eye Dam. 1, H318 Acute Tox. 3, H331 STOT SE 3, H335	



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3.2. Mixtures

Not applicable. This product is a substance.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information:

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation:

Upon breathing difficulties or irritation of the respiratory tract: Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact:

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact:

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion:

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If

**Burns:**

unconscious, roll the injured person into recovery position. Call an ambulance.

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

IF exposed or concerned:
Get immediate medical advice/attention.

Information to medics:

Bring this safety data sheet or the label from this product.

SECTION 5: FIREFIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Nitrogen oxides (NO_x)
Carbon oxides (CO / CO₂)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

Hazchem Code: ●2WE

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Avoid direct contact with spilled substances.

Avoid inhalation of vapours from spilled material.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.



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6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Ground and bond container and receiving equipment.

Use explosion-proof [electrical/lighting/ventilating] equipment.

Use non-sparking tools.

Take action to prevent static discharges.

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Take action to prevent static discharges.

Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Store in a container with a resistant inner liner.

Recommended storage material:

Keep only in original packaging.

Storage temperature:

Room temperature 15 to 25°C

Incompatible materials:

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

Butylamine

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Inhalation	6.1 mg/m ³
Long term – Systemic effects - General population	Inhalation	770 µg/m ³
Long term – Systemic effects - Workers	Inhalation	6.1 mg/m ³
Short term – Local effects - Workers	Inhalation	12.2 mg/m ³
Short term – Systemic effects - Workers	Inhalation	12.2 mg/m ³



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PNEC

Butylamine

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		21.8 µg/L
Freshwater sediment		173 µg/kg
Intermittent release (freshwater)		82 µg/L
Intermittent release (marine water)		8.2 µg/L
Marine water		2.18 µg/L
Marine water sediment		17.3 µg/kg
Sewage treatment plant		800 mg/L
Soil		21.74 µg/kg

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

General recommendations:

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios:

There are no exposure scenarios implemented for this product.

Exposure limits:

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures:

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures:

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure:


Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment


Generally:

Use only UKCA marked protective equipment.

Respiratory Equipment:

Type	Class	Colour	Standards	
B	Class 3 (High capacity)	Gray	EN14387	


Skin protection:

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	



Hand protection:



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Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Fluoropolymer elastomer (e.g. Viton®)	0,7	> 120	EN374-2, EN374-3, EN388	

Eye protection:

Type	Standards	
Safety glasses with side shields.	EN166	
Face shield	EN166	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<i>Physical state:</i>	Liquid
<i>Colour:</i>	Colourless
<i>Odour / Odour threshold:</i>	Amine
<i>pH:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Density (g/cm³):</i>	0.74 (25 °C)
<i>Kinematic viscosity:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Particle characteristics:</i>	Does not apply to liquids.

Phase changes

<i>Melting point/Freezing point (°C):</i>	-49
<i>Softening point/range (waxes and pastes) (°C):</i>	Does not apply to liquids.
<i>Boiling point (°C):</i>	77
<i>Vapour pressure:</i>	91 hPa (20 °C)
<i>Relative vapour density:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Decomposition temperature (°C):</i>	Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

<i>Flash point (°C):</i>	-7
<i>Flammability (°C):</i>	The material is ignitable.
<i>Auto-ignition temperature (°C):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Lower and upper explosion limit (% v/v):</i>	Testing not relevant or not possible due to the nature of the product.

Solubility



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<i>Solubility in water:</i>	Testing not relevant or not possible due to the nature of the product.
<i>n-octanol/water coefficient:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Solubility in fat (g/L):</i>	Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Other physical and chemical parameters: No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid static electricity.

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Harmful if swallowed.

Toxic in contact with skin.

Toxic if inhaled.

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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



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Reproductive toxicity

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

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

Not applicable.

Other information

None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

Not applicable.

12.7. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods



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Product is covered by the regulations on hazardous waste.

HP 3 - Flammable

HP 5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP 6 - Acute toxicity

HP 8 - Corrosive

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

Not applicable.







Specific labelling

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN1125	n-BUTYLAMINE	Class: 3 Labels: 3+8 Classification code: FC  	II	No	Limited quantities: 1 L Tunnel restriction code: (D/E) See below for additional information.
IMDG	UN1125	n-BUTYLAMINE	Class: 3 Labels: 3+8 Classification code: FC  	II	No	Limited quantities: 1 L EmS: F-E S-C See below for additional information.
IATA	UN1125	n-BUTYLAMINE	Class: 3 Labels: 3+8 Classification code: FC  	II	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

ADR / See Table A, Section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in



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connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

Hazchem Code: ●2WE

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: REGULATORY INFORMATION

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

Restrictions for application:

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education:

No specific requirements.

SEVESO - Categories / dangerous substances:

H2 - ACUTE TOXIC, Qualifying quantity (lower-tier): 50 tonnes / (upper-tier): 200 tonnes
P5c - FLAMMABLE LIQUIDS, Qualifying quantity (lower-tier): 5.000 tonnes / (upper-tier): 50.000 tonnes

Additional information:

Tactile warning.

If this product is sold in retail, it must be delivered with child-resistant fastening.

Sources:

The Management of Health and Safety at Work Regulations 1999.

The Health and Safety at Work etc. Act 1974
Regulations 2013.

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No



SECTION 16: OTHER INFORMATION

Full text of H-phrases as mentioned in section 3

- H225, Highly flammable liquid and vapour.
- H302, Harmful if swallowed.
- H311, Toxic in contact with skin.
- H314, Causes severe skin burns and eye damage.
- H318, Causes serious eye damage.
- H331, Toxic if inhaled.
- H335, May cause respiratory irritation.

Abbreviations and acronyms

- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- CAS = Chemical Abstracts Service
- CE = Conformité Européenne
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- CSA = Chemical Safety Assessment
- CSR = Chemical Safety Report
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EINECS = European Inventory of Existing Commercial chemical Substances
- ES = Exposure Scenario
- EUH statement = CLP-specific Hazard statement
- EWC = European Waste Catalogue
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IARC = International Agency for Research on Cancer (IARC)
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- OECD = Organisation for Economic Co-operation and Development
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- RRN = REACH Registration Number
- SCL = A specific concentration limit
- SVHC = Substances of Very High Concern
- STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
- STOT-SE = Specific Target Organ Toxicity - Single Exposure
- TWA = Time weighted average
- UN = United Nations
- UVBC = Unknown or variable composition, complex reaction products or of biological materials
- VOC = Volatile Organic Compound
- vPvB = Very Persistent and Very Bioaccumulative

Additional information



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The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the mixture in regard to physical hazards has been based on experimental data.

The safety data sheet is validated by

Laboratoriumdiscounter

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en