

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 01 Apr 2025

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Di-n-butylamine

1.1. Catalog No.:

677593

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Flammable liquids (Category 3), H226 Acute toxicity , Oral (Category 4), H302 Acute toxicity,
Inhalation (Category 2), H330 Acute toxicity,
Dermal (Category 3), H311 Skin corrosion, (Category 1A), H314

2.2. Label elements

2.2.1. Pictogram



2.2.2.

2.2
Label elements
Labelling according Regulation (EC) No 1272/2008

Pictogram Signal word Danger Hazard statement(s)

H226

Flammable liquid and vapour.

H302

H

harmful if swallowed.

H311

Toxic in contact with skin.

H314

Causes severe skin burns and eye damage.

H330

Fatal if inhaled.

Precautionary statement(s)

P260

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P280

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

P284

Wear respiratory protection.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard

Statements

none

2.3

Other hazards

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1

Substances

Formula

.

C

8

H

19

N

Molecular weight

.

129,24 g/mol

CAS

-

No.

.

111

-

92

-

2

EC

-

No.

.

203

-

921

-

8

Index

-

No.

.

612
-
049
-
00
-
0
Hazardous ingredients according to Regulation (EC) No 1272/2008
Component
Classification
Concentration
Dibutylamine
CAS
-
No.
EC
-
No.
Index
-
No.
111
-
92
-
2
203
-
921
-
8
612
-
049
-
00
-
0
Flam. Liq.
3
:
Acute Tox.
4
:
Acute Tox.
2
:
Acute Tox.
3
:
Skin Corr.
1A
:
H226, H302,
H311, H314, H330
<=
100
%
Hazardous ingredients according to Directive 1999/45/EC
Component
Classification
Concentration
Dibutylamine
CAS
-
No.
EC
-
No.
Index
-
No.
111
-
92
-
2
203
-
921
-

8
612
-
049
-
00
-
0
T

R10
-
R21/22
-
R23
-
R35
<=
100
%

3.1.1. Formula

C₈H₁₉N

3.1.2. Molecular Weight (g/mol)

129.24

3.1.3. CAS-No.

111-92-2

4. FIRST AID MEASURES

4.1

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take

victim immediately to hospital. Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2

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

4.3

Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE-FIGHTING MEASURES

5.1

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol

-

resistant foa

m, dry chemical or carbon dioxide.

5.2

Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx)

5.3

Advice for firefighters

Wear self

-

contained breathing apparatus for firefighting if necessary.

5.4

Furt

her information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove

all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumula

ting to form

explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

6.2

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the

envir

onment must be avoided.

6.3

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner

or by wet

-

brushing and

place in container for disposal according to local regulations (see section 13).

6.4

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition

-

No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2

Conditions for safe storage, including any incompatibilities

Store in cool place.

Keep container tightly closed in a dry and well

-

ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510)

.

Flammable liquids

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

Components with workplace control parameters

8.2

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8

-

inch minim

um). Use equipment for eye protection

tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touchi

ng glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands. Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The

type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air

-

purifying respirators are appropriate use a full

-

face respirator

with multi

-

purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full

-

face supplied air

respirator. Use respirators and componen

ts tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into

the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1
Information on basic physical and chemical properties

a)

Appearance

Form

:

clear, liquid

Colour

:

colourless

b)

Odour

ammoniacal

c)

Odour Threshold

No data available

d)

pH

11,1

at

1 g/l

at

20 °C

e)

Melting point/freezing

point

Melting point/range

:

-

62 °C

-

lit.

f)

Initial boiling point and

boiling range

159 °C

-

lit.

g)

Flash point

40,5 °C

-

closed cup

h)

Evaporation rate

No data available

i)

Flammability (solid, gas)

No data available

j)

Upper/lower

flammability or

explosive limits

Upper explosion limit

:

6,8 %(V)

Lower explosion limit

:

0,6 %(V)

k)

Vapour pressure

2,5 hPa

at

20 °C

l)

Vapour density

4,46

-
(Air = 1.0)
m)
Relative density
0,767 g/cm³
at
25 °C
n)
Water solubility
3,8 g/l
at
20 °C
-
OECD Test Guideline 105
-
completely miscible
o)
Partition coefficient: n
-
octanol/water
log Pow
:
2,1
at
23 °C
p)
Auto
-
ignition
temperature
225 °C
at
1.013,25 hPa
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
Surface tension
50,6 mN/m
at
20 °C
Dissociation constant
11
at
20 °C
Relative vapour density
4,46
-
(Air = 1.0)

10. STABILITY AND REACTIVITY

10.1
Reactivity
No data available
10.2
Chemical stability
Stable under recommended storage conditions.
10.3
Possibility of hazardous reactions

No data available

10.4

Conditions to avoid

Heat, flames and sparks 10.5

Incompatible materials

Strong oxidizing agents, Carbon dioxide (CO₂), Zinc, Iron, Copper

10.6

Hazardous decomposition products

Other decomposition
products

-

No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1

Information on toxicological effects

Acute toxicity

LD50

Oral

-

Rat

-

male

-

550 mg/kg

LC50

Inhalation

-

Rat

-

male and female

-

4 h

-

1,15 mg/l

(

OECD Test Guideline 403

)

LD50

Dermal

-

Rabbit

-

male

-

768 mg/kg

Skin corrosion/irritation

Skin

-

Rabbit

Result

:

Causes severe burns.

-

3 min

-

1 h

(

OECD Test Guideline 404

)

Serious eye damage/eye irritation

Eyes

-

Rabbit

Result

:

Corrosive

(

OECD Test Guideline 405

)
Respiratory or skin sensitisation
Buehler Test
-
Guinea pig
Result
:
Does not cause skin sensitisation.
Germ cell mutagenicity
Mouse
lymphocyte
Result
:
negative
OECD Test Guideline 475
Mouse
-
male and female
Result
:
negative
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.
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
Additional Information
RTECS
:
HR7780000
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish
LC50
-
Oncorhynchus mykiss (rainbow trout)
-
5,5
-
37,0 mg/l
-
96 h
Toxicity to daphnia and
other aquatic
invertebrates
static test
EC50
-
Daphnia magna (Water flea)
-
65,98 mg/l
-
48 h
(
Directive 67/548/EEC, Annex V, C.2.
)
Toxicity to algae
static test

EC50

-
Desmodesmus subspicatus (Scenedesmus subspicatus)

-
16,91 mg/l

-
72 h

12.2

Persistence and degradability

Biodegradability

aerobic

-

Exposure time

28 d

Result

:

95 %

-

Readily biodegradable.

(

OECD Test Guideline 301C

)

12.3

Bioaccumulative potential

No data available

12.4

Mobility in soil

No data available

12.5

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.

12.6

Other adverse effects

Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1

Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Offer surplus and non

-

recyclable solutions to a licensed

disposal

company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1

UN number

ADR/RID

:

2248

IMDG

:
2248
IATA:
2248
14.2
UN proper shipping name
ADR/RID
:
DI
-
n
-
BUTYLAMINE
IMDG
:
DI
-
n
-
BUTYLAMINE
IATA:
Di
-
n
-
butylamine
14.3
Transport hazard class(es)
ADR/RID
:
8
(
3
)
IMDG
:
8
(
3
)
IATA:
8
(
3
)
14.4
Packaging group
ADR/RID
:
II
IMDG
:
II
IATA:
II
14.5
Environmental hazards
ADR/RID
:
no
IMDG
Marine pollutant
:
no
IATA:
no
14.6
Special pr
ecautions for user
No data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1

Safety, health and environmental regulations/legislation specific for the substance or mixture No data available

15.2

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. OTHER 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. For lab use only!