

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 1 of 14

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

1.1. Product identifier

Dibutylaminlösung 1% in Dimethylformamid

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

| | | |
|-------------------------|----------------------------------|------------------------------|
| Company name: | AnalytiChem GmbH | |
| Street: | Stempelstraße 6 | |
| Place: | D-47167 Duisburg | |
| Telephone: | 0203/5194-0 | Telefax: 0203/5194-290 |
| E-mail: | info@analytichem.de | |
| Contact person: | Abteilung Produktsicherheit | Telephone: 0203/5194-107/117 |
| E-mail: | produktsicherheit@analytichem.de | |
| Internet: | www.analytichem.de | |
| Responsible Department: | Abteilung Produktsicherheit | |

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 3; H226
Acute Tox. 3; H331
Acute Tox. 4; H312
Skin Irrit. 2; H315
Eye Irrit. 2; H319
Repr. 1B; H360D

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

N,N-dimethylformamide
di-n-butylamine

Signal word: Danger

Pictograms:



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 2 of 14

Hazard statements

| | |
|-------|--------------------------------|
| H226 | Flammable liquid and vapour. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H360D | May damage the unborn child. |

Precautionary statements

| | |
|-----------|--|
| P201 | Obtain special instructions before use. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |

Special labelling of certain mixtures

Restricted to professional users.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

| CAS No | Chemical name | | | Quantity |
|----------|---|--------------|------------------|--------------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 68-12-2 | N,N-dimethylformamide | | | 95 - < 100 % |
| | 200-679-5 | 616-001-00-X | 01-2119475605-32 | |
| | Flam. Liq. 3, Repr. 1B, Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2; H226 H360D H332 H312 H319 | | | |
| 111-92-2 | di-n-butylamine | | | 1 - < 5 % |
| | 203-921-8 | 612-049-00-0 | 01-2119475606-30 | |
| | Flam. Liq. 3, Acute Tox. 2, Acute Tox. 3, Acute Tox. 4, Skin Corr. 1A; H226 H330 H311 H302 H314 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|----------|-----------|---|--------------|
| | | Specific Conc. Limits, M-factors and ATE | |
| 68-12-2 | 200-679-5 | N,N-dimethylformamide | 95 - < 100 % |
| | | inhalation: LC50 = > 5,85 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 3160 mg/kg; oral: LD50 = 3010 mg/kg | |
| 111-92-2 | 203-921-8 | di-n-butylamine | 1 - < 5 % |
| | | inhalation: LC50 = 218 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: LD50 = 768 mg/kg; oral: LD50 = 550 mg/kg | |

Further Information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: Dimethylformamide

SECTION 4: First aid measures

4.1. Description of first aid measures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 3 of 14

General information

Self-protection of the first aider

After inhalation

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Irritant

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam

Carbon dioxide (CO₂)

Extinguishing powder

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NO_x)

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Heating causes rise in pressure with risk of bursting.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Keep away from sources of ignition - No smoking.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 4 of 14

This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).

Take action to prevent static discharges.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

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

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Danger of explosion

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

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

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid exposure - obtain special instructions before use.

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

Use personal protection equipment. Use extractor hood (laboratory).

Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.

Advice on protection against fire and explosion

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 5 of 14

a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.
Store in a place accessible by authorized persons only.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Further information on storage conditions

Keep container tightly closed.
Keep cool. Protect from sunlight.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|---------|-------------------|-----|-------------------|---------------------|---------------|--------|
| 68-12-2 | Dimethylformamide | 5 | 15 | | TWA (8 h) | |
| | | 10 | 30 | | STEL (15 min) | |

Biological limit values

| CAS No | Substance | Parameter | Value | Test material | Sampling time |
|---------|-----------------------|-------------------|---------|---------------|---------------|
| 68-12-2 | N,N-Dimethylformamide | N-Methylformamide | 15 mg/L | Urine | Post shift |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 6 of 14

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|-----------------------|----------------|----------|-----------------------|
| 68-12-2 | N,N-dimethylformamide | | | |
| Worker DNEL, long-term | | inhalation | systemic | 6 mg/m ³ |
| Worker DNEL, long-term | | dermal | systemic | 1,1 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 1,1 mg/m ³ |
| Consumer DNEL, long-term | | oral | systemic | 0,16 mg/kg bw/day |
| Worker DNEL, acute | | inhalation | local | 30 mg/m ³ |
| Worker DNEL, acute | | dermal | systemic | 26,3 mg/kg bw/day |
| Consumer DNEL, acute | | inhalation | systemic | 30 mg/m ³ |
| Worker DNEL, long-term | | inhalation | local | 15 mg/m ³ |
| Worker DNEL, acute | | inhalation | systemic | 30 mg/m ³ |
| Consumer DNEL, acute | | oral | systemic | 5,94 mg/kg bw/day |
| Consumer DNEL, acute | | inhalation | local | 30 mg/m ³ |
| Consumer DNEL, acute | | dermal | systemic | 15,8 mg/kg bw/day |
| Consumer DNEL, long-term | | dermal | systemic | 1,98 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | local | 15 mg/m ³ |
| 111-92-2 | di-n-butylamine | | | |
| Worker DNEL, long-term | | inhalation | systemic | 29 mg/m ³ |
| Worker DNEL, acute | | inhalation | systemic | 29 mg/m ³ |
| Worker DNEL, long-term | | inhalation | local | 29 mg/m ³ |
| Worker DNEL, acute | | inhalation | local | 29 mg/m ³ |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 7 of 14

PNEC values

| CAS No | Substance | Value |
|--|-----------------------|-------------|
| Environmental compartment | | |
| 68-12-2 | N,N-dimethylformamide | |
| Freshwater | | 30 mg/l |
| Freshwater (intermittent releases) | | 30 mg/l |
| Marine water | | 3 mg/l |
| Freshwater sediment | | 111 mg/kg |
| Marine sediment | | 11,1 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 44 mg/l |
| Soil | | 56,97 mg/kg |
| 111-92-2 | di-n-butylamine | |
| Freshwater | | 0,084 mg/l |
| Freshwater (intermittent releases) | | 0,084 mg/l |
| Marine water | | 0,008 mg/l |
| Freshwater sediment | | 11,4 mg/kg |
| Marine sediment | | 1,14 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 149,5 mg/l |
| Soil | | 2,23 mg/kg |

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Face protection umbrella

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact: No data available

By short-term hand contact

Trade name/designation KCL 890 Vitoject®

Suitable material: FKM (fluoro rubber) 0,7 mm

Wearing time with occasional contact (splashes): > 240 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Take off immediately all contaminated clothing and wash it before reuse.

Wear fire resistant or flame retardant clothing.

Wash hands and face before breaks and after work and take a shower if necessary.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 8 of 14

Draw up and observe skin protection programme.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Environmental exposure controls

Do not allow to enter into surface water or drains.

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Danger of explosion

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | | |
|---|-------------------|------------------------|
| Physical state: | Liquid | |
| Colour: | colourless | |
| Odour: | like: Amines | |
| Odour threshold: | No data available | |
| Melting point/freezing point: | | No data available |
| Boiling point or initial boiling point and boiling range: | | ~153 °C |
| Flammability: | | No data available |
| Lower explosion limits: | | No data available |
| Upper explosion limits: | | No data available |
| Flash point: | | ~57,5 °C |
| Auto-ignition temperature: | | No data available |
| Decomposition temperature: | | No data available |
| pH-Value: | | No data available |
| Viscosity / kinematic: | | No data available |
| Water solubility: | | No data available |
| Solubility in other solvents | | No data available |
| Dissolution rate: | | No data available |
| Partition coefficient n-octanol/water: | | No data available |
| Dispersion stability: | | No data available |
| Vapour pressure: | | No data available |
| Density: | | 0,94 g/cm ³ |
| Relative density: | | No data available |
| Bulk density: | | No data available |
| Relative vapour density: | | No data available |
| Particle characteristics: | | No data available |

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Sustaining combustion: No data available

Self-ignition temperature

Solid: No data available

Gas: No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate: No data available

Solvent separation test: No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 9 of 14

| | |
|----------------------|-------------------|
| Solvent content: | No data available |
| Solid content: | No data available |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| | No data available |
| Viscosity / dynamic: | No data available |
| Flow time: | No data available |

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

In case of warming:
Vapours may form explosive mixtures with air.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Oxidising agent
Alkali metals
Reducing agent
Isocyanates
Phosphorus oxides
Bromine
Chlorine
permanganates, e.g. potassium permanganate
NO₃, Na

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Plastic articles
copper
Copper alloys
Tin

10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

Avoid exposure - obtain special instructions before use.

Acute toxicity

Toxic if inhaled.
Harmful in contact with skin.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) 1095 mg/kg; ATE (inhalation vapour) 9,090 mg/l; ATE (inhalation dust/mist) 1,163 mg/l

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 10 of 14

| CAS No | Chemical name | | | | |
|----------|-------------------------|-------------------|---------|--|---|
| | Exposure route | Dose | Species | Source | Method |
| 68-12-2 | N,N-dimethylformamide | | | | |
| | oral | LD50 3010 mg/kg | Rat | also cited in OECD SIDS Dimethylformamid | OECD Guideline 401 |
| | dermal | LD50 > 3160 mg/kg | Rabbit | Study report (1978) | OECD Guideline 405 |
| | inhalation (4 h) vapour | LC50 > 5,85 mg/l | Rat | also cited in OECD SIDS Dimethylformamid | OECD Guideline 403 |
| | inhalation dust/mist | ATE 1,5 mg/l | | | |
| 111-92-2 | di-n-butylamine | | | | |
| | oral | LD50 550 mg/kg | Rat | Publication (1954) | Evaluation of acute oral toxicity after |
| | dermal | LD50 768 mg/kg | Rabbit | Publication (1954) | according to Draize et al. |
| | inhalation (4 h) vapour | LC50 218 mg/l | Rat | Study report (1987) | OECD Guideline 403 |
| | inhalation dust/mist | ATE 0,05 mg/l | | | |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

May damage the unborn child. (N,N-dimethylformamide)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

STOT-single exposure

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

kidneys

liver

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.

Information on likely routes of exposure

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 11 of 14

Other information

No data available

Further information

Headache
Dizziness
Dizziness

SECTION 12: Ecological information

12.1. Toxicity

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

| CAS No | Chemical name | | | | | |
|----------|--------------------------|---------------|-----------|---------|-----------------------------|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 68-12-2 | N,N-dimethylformamide | | | | | |
| | Acute fish toxicity | LC50 mg/l | 7100 | 96 h | Lepomis macrochirus | REACH Registration Dossier other: US EPA guideline 660/3-75-009 |
| | Acute algae toxicity | ErC50 mg/l | > 1000 | 72 h | Desmodesmus subspicatus | REACH Registration Dossier other: DIN 38412, part 9, "Determination |
| | Acute crustacea toxicity | EC50 mg/l | 13100 | 48 h | Daphnia magna | REACH Registration Dossier OECD Guideline 202 |
| | Fish toxicity | NOEC mg/l | > 102 | 21 d | Oryzias latipes | REACH Registration Dossier OECD Guideline 204 |
| | Algae toxicity | NOEC | 940 mg/l | 14 d | Raphidocelis subcapitata | Bull. Environ. Contam. Toxicol. 31, 98-1 other: EPA-600/9-78-01 8 |
| | Crustacea toxicity | NOEC mg/l | 1500 | 21 d | Daphnia magna | REACH Registration Dossier Semi-Static toxicity test |
| 111-92-2 | di-n-butylamine | | | | | |
| | Acute fish toxicity | LC50 | 5,5 mg/l | 96 h | Oncorhynchus mykiss | Chemosphere 9, 753-762 (1980) other: IRSA, Quaderni dell'Istituto di |
| | Acute algae toxicity | ErC50 mg/l | 16,91 | 72 h | Desmodesmus subspicatus | Study report (1988) other: DIN 38412, part 9 |
| | Acute crustacea toxicity | EC50 | 8,4 mg/l | 48 h | Ceriodaphnia dubia | Study report (1994) other: Standard guide for conducting acu |
| | Crustacea toxicity | NOEC | 4,2 mg/l | 21 d | Daphnia magna | Publication (1999) OECD Guideline 211 |

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|----------|-----------------------|---------|
| 68-12-2 | N,N-dimethylformamide | -0,85 |
| 111-92-2 | di-n-butylamine | 2,1 |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 12 of 14

BCF

| CAS No | Chemical name | BCF | Species | Source |
|----------|-----------------------|-----------|-----------------|----------------------|
| 68-12-2 | N,N-dimethylformamide | 0,3 - 1,2 | Cyprinus carpio | REACH Registration D |
| 111-92-2 | di-n-butylamine | 21 | fish | United States Enviro |

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Do not allow to enter into surface water or drains.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information**Land transport (ADR/RID)**

| | |
|--|--|
| 14.1. UN number or ID number: | UN 1992 |
| 14.2. UN proper shipping name: | FLAMMABLE LIQUID, TOXIC, N.O.S. (N,N-dimethylformamide, di-n-butylamine) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | III |
| Hazard label: | 3+6.1 |
| Classification code: | FT1 |
| Special Provisions: | 274 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| Transport category: | 3 |
| Hazard No: | 36 |
| Tunnel restriction code: | D/E |

Inland waterways transport (ADN)

| | |
|--|--|
| 14.1. UN number or ID number: | UN 1992 |
| 14.2. UN proper shipping name: | FLAMMABLE LIQUID, TOXIC, N.O.S. (N,N-dimethylformamide, di-n-butylamine) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | III |
| Hazard label: | 3+6.1 |
| Classification code: | FT1 |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 13 of 14

Special Provisions: 274 802
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1992
14.2. UN proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (N,N-dimethylformamide, di-n-butylamine)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3+6.1
 Special Provisions: 223, 274
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1992
14.2. UN proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (N,N-dimethylformamide, di-n-butylamine)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3+6.1
 Special Provisions: A3
 Limited quantity Passenger: 2 L
 Passenger LQ: Y343
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 355
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 366
 IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

SECTION 15: Regulatory information

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

EU regulatory information

Authorisations (REACH, annex XIV):
 Substances of very high concern, SVHC (REACH, article 59):
 N,N-dimethylformamide

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30, Entry 40

Information according to Directive 2012/18/EU (SEVESO III): H2 ACUTE TOXIC

Additional information: P5c

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water hazard class (D): 2 - obviously hazardous to water

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Dibutylaminlösung 1% in Dimethylformamid

Revision date: 17.07.2023

Product code: 14752

Page 14 of 14

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 11,12.

Abbreviations and acronyms

Flam. Liq: Flammable liquid

Acute Tox: Acute toxicity

Skin Corr: Skin corrosion

Skin Irrit: Skin irritation

Eye Irrit: Eye irritation

Repr: Reproductive toxicity

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

| Classification | Classification procedure |
|---------------------|--------------------------|
| Flam. Liq. 3; H226 | On basis of test data |
| Acute Tox. 3; H331 | Calculation method |
| Acute Tox. 4; H312 | Calculation method |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Repr. 1B; H360D | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|-------|--|
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H360D | May damage the unborn child. |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)