NeoPac E-108 XP

Version 4.3 Revision Date 09.01.2023 Print Date 10.01.2023

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

1.1 Product identifier

NEOPAC E-108 XP

Material number: 50027875

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

Use:
Resin used in the production of coatings, inks and/or adhesives

1.3 Details of the supplier of the safety data sheet

Covestro Deutschland AG
COVDEAG-CEO-GI-GQ-GPS&RA-GPS&I
51365 Leverkusen, Germany

Tel.: +49 214 6009 8134
Email: ProductSafetyEMLA@covestro.com

1.4 Emergency telephone number

+1-703-527-3887 (Chemtrec)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

No classification in accordance with the Regulation (EC) No. 1272/2008.

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008 Appendix II (special regulations for the labeling and packaging of certain substances and mixtures)

Supplementary hazardous characteristics and labeling elements:

Contains:
1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
EUH208 May produce an allergic reaction.

2.3 Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute oral toxicity: 32 %
The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 32 %
The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 38 %

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 32 %

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.

SECTION 3: Composition/information on ingredients

Type of product: Mixture

3.2 Mixtures

Hazardous components

1-Butylpyrrolidin-2-one
Concentration [wt.-%]: >= 5 - < 10
EC-No.: 222-437-8
CAS-No.: 3470-98-2
Classification (1272/2008/CE): Acute Tox. 4 Oral H302 Skin Irrit. 2 H315 Eye Irrit. 2 H319

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Concentration [wt.-%]: >= 0,025 - < 0,05
Index-No.: 613-088-00-6
EC-No.: 220-120-9
CAS-No.: 2634-33-5
Classification (1272/2008/CE): Acute Tox. 4 Oral H302 Skin Irrit. 2 H315 Eye Dam. 1 H318 Skin Sens. 1 H317 Aquatic Acute 1 H400 Aquatic Chronic 2 H411
Specific threshold concentration (GHS):
Skin Sens. 1 H317 >= 0,05 %
M-factor (acute aquat. tox.): 1
ATE (oral): 490 mg/kg

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: Take off all contaminated clothing immediately.

For effective first-aid, special training / education is needed.

If inhaled: Take the person into the fresh air and keep him warm, let him rest; if there is difficulty in breathing, medical advice is required.

In case of skin contact: In case of skin contact wash affected areas thoroughly with soap and plenty of water. Consult a doctor in the event of a skin reaction. Take off contaminated clothing and shoes immediately.

In case of eye contact: Hold the eyes open and rinse with preferably lukewarm water for a sufficiently long period of time (at least 10 minutes). Contact an ophthalmologist. Remove contact lenses.

If swallowed: Rinse mouth. Do not induce vomiting without medical advice. If symptoms persist, call a physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If victim is conscious: Give small amounts of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Notes to physician: Basic first aid, decontamination, symptomatic treatment.

4.3 Indication of any immediate medical attention and special treatment needed

Therapeutic measures: No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. In the event of fire and/or explosion do not breathe fumes. Formation of carbon monoxide, carbon dioxide and other toxic gases in the event of fire or during thermal decomposition. Fire will produce dense black smoke containing hazardous combustion products (see section 10). In case of fire, may produce hazardous decomposition products such as: Aldehydes Organic acids Isocyanates Nitrogen oxides (NOx)

5.3 Advice for fire-fighters

Use personal protective equipment. Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

The material will not support combustion unless the water has evaporated.

Immediately evacuate personnel to safe areas. Fight fire in early stages if safe to do so. Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Immediately evacuate personnel to safe areas. Keep unauthorised persons away. Use personal protective equipment.

Put on protective equipment (see section 8).

6.2 Environment related measures

Do not allow to escape into waterways, wastewater or soil. If the product contaminates rivers and lakes or drains inform respective authorities. Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste.

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Dispose of wastes in an approved waste disposal facility.

Do not discharge large quantities of concentrated spills or residues into surface water or sanitary sewer system.

6.4 Reference to other sections

For personal protection see section 8. For further disposal measures see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Smoking, eating and drinking should be prohibited in the application area. Wash skin thoroughly after handling. For personal protection see section 8. Remove contaminated clothing and protective equipment

before entering eating areas.

The personal protective measures described in section 8 must be observed.

Keep away from foodstuffs, drinks and tobacco. Wash hands and face before breaks and at the end of work. Keep working clothes separately. Change contaminated or soaked clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Protect against heat and direct sunlight. When not in use, keep containers tightly closed. Keep in properly labelled containers. Use appropriate container to avoid environmental contamination.

Recommended storage temperature: 5 - 40 °C
Further information on storage stability: Protect from frost.

7.3 Specific end use(s)

Resin used in the production of coatings, inks and/or adhesives

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls
Use a local and/or general ventilation system.Use feasible engineering controls to minimize exposure to compound.

Respiratory protection
Respiratory protection required in insufficiently ventilated working areas.

Hand protection
Conditionally suitable materials for protective gloves; EN 374:
Polyvinyl chloride - PVC (>= 0.5 mm); Break through time: 240 - 480 min
Latex gloves; Break through time: < 60 min
Contaminated and/or damaged gloves must be changed.

Eye protection
Safety glasses with side-shields

Skin and body protection
Wear suitable protective clothing.

Further protective measures
Wear suitable protective equipment. When using do not eat, drink or smoke. Ensure that eyewash stations and safety showers are close to the workstation location. Take off contaminated clothing and wash it before reuse. Wash face, hands and any exposed skin thoroughly after handling. Use appropriate degowning techniques to remove potentially contaminated clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	liquid at 20 °C at 1.013 hPa
Colour:	yellow
Odour:	characteristic
Odour Threshold:	not established
pH:	7,7 - 8,6
Melting point/freezing point:	not established
Boiling point/boiling range:	100 °C
Flash point:	> 100 °C, closed cup
Evaporation rate:	not established

Flammability:	not established
Burning number:	not established
Upper/lower flammability or explosive limits:	not established
Vapour pressure:	22,99944 hPa at 20 °C
Relative vapour density:	not established
Density:	1,05 g/cm³ at 20 °C
Bulk density:	1.050 kg/m³ at 20 °C
Miscibility with water:	not established
Water solubility:	not established
Surface tension:	not established
Partition coefficient (n−octanol/water):	not established
Auto-ignition temperature:	not established
Ignition temperature:	not established
Decomposition temperature:	not established
Heat of combustion:	not established
Viscosity, dynamic:	50 - 250 mPa.s at 20 °C
Viscosity, kinematic:	> 20,5 mm2/s at 40 °C
	28 mm2/s at 20 °C

9.2 Other information

The indicated values do not necessarily correspond to the product specification. Please refer to the technical information sheet for specification data.

Explosive properties:	not established
Dust explosion class:	not established
Oxidising properties:	not established

SECTION 10: Stability and reactivity

10.1 Reactivity

None known.

10.2 Chemical stability

No decomposition if used as directed. Stable under recommended storage conditions. The product is chemically stable.

10.3 Possibility of hazardous reactions

No hazardous reactions when stored and handled correctly. Stable under normal conditions.

10.4 Conditions to avoid

Protect from frost.

10.5 Incompatible materials

This information is not available.

10.6 Hazardous decomposition products

This information is not available.

SECTION 11: Toxicological information

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

Acute toxicity, oral
ATEmix (oral): > 2.000 mg/kg
Method: Calculation method

1-Butylpyrrolidin-2-one
LD50 rat, female: > 300 - < 2.000 mg/kg
Method: OECD Test Guideline 423

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
LD50 rat, male/female: 490 mg/kg
Method: OECD Test Guideline 401

Acute toxicity, dermal
ATEmix (dermal):> 2.000 mg/kg
Method: Calculation method

1-Butylpyrrolidin-2-one
LD50 rat, male/female: > 2.000 mg/kg
Method: OECD Test Guideline 402

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
LD50 rat, male/female: > 2.000 mg/kg
Method: OECD Test Guideline 402

Acute toxicity, inhalation
ATEmix (inhal.): > 20 mg/l, 4 h
Test atmosphere: vapour
Method: Calculation method

1-Butylpyrrolidin-2-one
Assessment: no data available

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Assessment: no data available

Primary skin irritation
1-Butylpyrrolidin-2-one
Species: rabbit
Result: irritating
Classification: Causes skin irritation.
Method: OECD Test Guideline 404

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Species: rabbit
Result: irritating
Classification: Causes skin irritation.

Primary mucosae irritation
1-Butylpyrrolidin-2-one
Species: rabbit
Result: irritating
Classification: Causes serious eye irritation.
Method: OECD Test Guideline 405

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Species: rabbit
Result: Corrosive
Classification: Causes serious eye damage.

Sensitisation
1-Butylpyrrolidin-2-one
Skin sensitisation:
Species: Mouse
Result: negative
Classification: Does not cause skin sensitization.
Method: OECD Test Guideline 429

Sensitization of the respiratory airways

no data available

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Skin sensitisation:
Species: Guinea pig
Result: positive
Classification: May cause sensitization by skin contact.

Respiratory sensitization

No data available.

Subacute, subchronic and prolonged toxicity
1-Butylpyrrolidin-2-one
NOAEL: 500 mg/kg
Application Route: Oral
Species: rat, male/female
Exposure duration: 90 d
Frequency of treatment: daily
Method: OECD Test Guideline 408

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
NOAEL: 150 mg/kg
Application Route: Oral
Species: rat, male/female
Exposure duration: 4 Weeks
Frequency of treatment: daily
Method: OECD Test Guideline 407

Carcinogenicity
1-Butylpyrrolidin-2-one
No data available.

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
No data available.

Reproductive toxicity/Fertility
1-Butylpyrrolidin-2-one
NOAEL - Parents: 50 mg/kg
Test type: One-generation study
Species: rat, female
Application Route: Oral
Frequency of treatment: daily

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
NOAEL - Parents: 112 mg/kg
NOAEL – F1: 56,6 mg/kg
NOAEL – F2: 56,6 mg/kg
Test type: Two-generation study
Species: rat, male/female
Application Route: Oral
Frequency of treatment: daily

Reproductive toxicity/Developmental Toxicity/Teratogenicity
1-Butylpyrrolidin-2-one
NOAEL (teratogenicity): > 500 mg/kg
NOAEL (maternal): 50 mg/kg
Species: rat, male/female
Application Route: Oral
Frequency of treatment: Daily from day 6 to day 20 of the gestation
Method: OECD Test Guideline 414

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
No data available.

Genotoxicity in vitro

1-Butylpyrrolidin-2-one
Test type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 471

Test type: Micronucleus test
Test system: Human lymphocytes
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 487

Test type: In vitro mammalian cell gene mutation test
Test system: Mouse lymphoma cells
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 476

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Test type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 471

Test type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 473

Test type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 476

Genotoxicity in vivo
1-Butylpyrrolidin-2-one
no data available

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Test type: In vivo micronucleus test
Species: Mouse, male/female
Application Route: Oral
Result: negative
Method: OECD Test Guideline 474

Test type: Unscheduled DNA synthesis (UDS)
Species: rat, male
Application Route: Oral
Result: negative
Method: OECD Test Guideline 486

STOT evaluation – one-time exposure
1-Butylpyrrolidin-2-one
Based on available data, the classification criteria are not met.

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Based on available data, the classification criteria are not met.

STOT evaluation – repeated exposure
1-Butylpyrrolidin-2-one
Based on available data, the classification criteria are not met.

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Based on available data, the classification criteria are not met.

Aspiration toxicity

1-Butylpyrrolidin-2-one
Based on available data, the classification criteria are not met.

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Based on available data, the classification criteria are not met.

CMR Assessment
1-Butylpyrrolidin-2-one
Carcinogenicity: No data available.
Mutagenicity: Based on available data, the classification criteria are not met.
Teratogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity/Fertility: Based on available data, the classification criteria are not met.

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Carcinogenicity: Based on available data, the classification criteria are not met.
Mutagenicity: Based on available data, the classification criteria are not met.
Teratogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity/Fertility: Based on available data, the classification criteria are not met.

Toxicology Assessment
1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Acute effects: Harmful if swallowed. Causes skin irritation. Causes serious eye damage.
Sensitization: May cause an allergic skin reaction.

11.2 Information on other hazards

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute Fish toxicity
1-Butylpyrrolidin-2-one
LC50 > 100 mg/l
Species: Oncorhynchus mykiss (rainbow trout)
Exposure duration: 96 h
Method: OECD Test Guideline 203

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
LC50 2,18 mg/l
Species: Oncorhynchus mykiss (rainbow trout)
Exposure duration: 96 h
Method: OECD Test Guideline 203

Chronic Fish toxicity
1-Butylpyrrolidin-2-one
No data available.

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
No data available.

Acute toxicity for daphnia
1-Butylpyrrolidin-2-one
EC50 > 100 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: OECD Test Guideline 202

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
EC50 2,94 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: OECD Test Guideline 202

Chronic toxicity to daphnia
1-Butylpyrrolidin-2-one
NOEC 100 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 21 d
Method: OECD Test Guideline 211

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
no data available

Acute toxicity for algae
1-Butylpyrrolidin-2-one
NOEC 40 mg/l
Species: Pseudokirchneriella subcapitata (green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201

EC50 130 mg/l
Species: Pseudokirchneriella subcapitata (green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
EC50 0,11 mg/l
Species: Pseudokirchneriella subcapitata (green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201

NOEC 0,0403 mg/l
Species: Pseudokirchneriella subcapitata (green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201

Acute bacterial toxicity
1-Butylpyrrolidin-2-one
NOEC 306,2 mg/l
Species: activated sludge
Exposure duration: 28 h
Method: 88/302/EC

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
EC50 12,8 mg/l
Species: activated sludge
Exposure duration: 3 h
Method: OECD Test Guideline 209

Ecotoxicology Assessment
1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Acute aquatic toxicity: Very toxic to aquatic life.
Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

M-Factor
1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
M-factor (acute aquat. tox.): 1

12.2 Persistence and degradability

Biodegradability
1-Butylpyrrolidin-2-one
Test type: aerobic
Inoculum: activated sludge
Biodegradation: 13,7 %, 28 d, i.e. not readily degradable
Method: OECD Test Guideline 302 C

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
Test type: aerobic
Inoculum: activated sludge
Biodegradation: 85 %, 63 d, i.e. not readily degradable
Method: OECD Test Guideline 301 C

12.3 Bioaccumulative potential

Bioaccumulation
1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one
no data available

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. Reference number 2008/98/EC

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. The classification of the product may meet the criteria for a hazardous waste. Offer surplus and non-recyclable solutions to a licensed disposal company. Do not dispose of waste into sewer.

13.1 Waste treatment methods

After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Empty containers retain residue and can be dangerous. Containers must be recycled in compliance with national legislation and environmental regulations. Dispose of empty containers and wastes safely. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Where possible recycling is preferred to disposal or incineration.

No disposal into waste water.

SECTION 14: Transport information

ADR/RID

14.1 UN number or ID number	:	Not dangerous goods
14.2 UN proper shipping name	:	Not dangerous goods
14.3 Transport hazard class(es)	:	Not dangerous goods
14.4 Packing group	:	Not dangerous goods
14.5 Environmental hazards	:	Not dangerous goods

ADN

14.1 UN number or ID number	:	Not dangerous goods

14.2 UN proper shipping name : Not dangerous goods
14.3 Transport hazard class(es) : Not dangerous goods
14.4 Packing group : Not dangerous goods
14.5 Environmental hazards : Not dangerous goods

Dangerous goods classification for inland waterways tanker by request only.

IATA
14.1 UN number or ID number : Not dangerous goods
14.2 UN proper shipping name : Not dangerous goods
14.3 Transport hazard class(es) : Not dangerous goods
14.4 Packing group : Not dangerous goods
14.5 Environmental hazards : Not dangerous goods

IMDG
14.1 UN number or ID number : Not dangerous goods
14.2 UN proper shipping name : Not dangerous goods
14.3 Transport hazard class(es) : Not dangerous goods
14.4 Packing group : Not dangerous goods
14.5 Environmental hazards : Not dangerous goods

14.6 Special precautions for user

See section 6 - 8.

Additional information : Not dangerous cargo. Keep separated from foodstuffs.

14.7 Maritime transport in bulk according to IMO instruments

Product is not transported by us in bulk.

SECTION 15: Regulatory information

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

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances.
not applicable

Water contaminating class (Germany)
1 slightly water endangering

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been conducted for this substance / mixture resp. its components.

SECTION 16: Other information

Full text of the hazard statements of the CLP classification (1272/2008/CE) referred to under sections 2, 3 and 10.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
ATE	Acute Toxic Estimate
AwSv	Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
BCF	Bioconcentration Factor
CAS	Chemical Abstract Service
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
CMR	Cancerogenic Mutagenic Reprotoxic
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
EC…	Effect Concentration ... %
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LOAEL	Lowest Observable Adverse Effect Level
LC…	Lethal Concentration, ...%
LD…	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEL	No Observed Adverse Effect Level
NOEL/NOEC	No Observed Effect Level/Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire de marchandises Dangereuses
STOT	Specific Target Organ Toxicity
TRGS	Technische Regeln für Gefahrstoffe
vPvB	very Persistent, very Bioaccumulative
WGK	Wassergefährdungsklasse

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.