



Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 11/18/2022 Revision date: 11/18/2022 Supersedes version of: 10/9/2019 Version: 9.00

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

1.1. Product identifier

Product form : Mixture
Trade name : Bechtol Premium
Article number : REF 536 + 536.5

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Medical device
Germicide
Cleaning agent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Alfred Becht GmbH
Carl-Zeiss-Str. 16
P.O. Box 1145
77656 Offenburg
T +49 781 60586-0 - F +49 781 60586-40

Email competent person

sds@kft.de

1.4. Emergency telephone number

Emergency number : Poisoning Information Centre Freiburg +49 761 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

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

Adverse physicochemical, human health and environmental effects

Harmful if inhaled. Causes serious eye damage. May cause an allergic skin reaction. Causes severe skin burns and eye damage. Very toxic to aquatic life with long lasting effects. Harmful if swallowed.

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

GHS07

GHS09

Signal word (CLP)

: Danger

Contains

: N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine, Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides, 2,2'-iminodiethylamine, Tridecylamine, branched and linear

Hazard statements (CLP)

: H302+H332 - Harmful if swallowed or if inhaled.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P261 - Avoid breathing mist, vapours, spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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, a doctor.
P391 - Collect spillage.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides (68391-01-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2,2'-iminodiethylamine (111-40-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Tridecylamine, branched and linear (86089-17-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
nitrilotriacetic acid (139-13-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
dodecylamine (124-22-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	CAS-No.: 68391-01-5 EC-No.: 269-919-4	≥ 10 – < 20	Acute Tox. 4 (Oral), H302 (ATE=344 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
2,2'-iminodiethylamine	CAS-No.: 111-40-0 EC-No.: 203-865-4 EC Index-No.: 612-058-00-X REACH-no: 01-2119473793-27-xxxx	≥ 2.5 – < 5	Acute Tox. 4 (Oral), H302 (ATE=1553 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1045 mg/kg bodyweight) Acute Tox. 2 (Inhalation:dust,mist), H330 (ATE=0.05 mg/l/4h) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine substance with national workplace exposure limit(s) (DE)	CAS-No.: 2372-82-9 EC-No.: 219-145-8 REACH-no: 01-2119980592-29-xxxx	≥ 2.5 – < 5	Acute Tox. 3 (Oral), H301 (ATE=261 mg/kg bodyweight) Skin Corr. 1B, H314 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
Tridecylamine, branched and linear	CAS-No.: 86089-17-0 EC-No.: 289-185-9 REACH-no: 01-2119461722-40-xxxx	≥ 1 – < 2.5	Acute Tox. 4 (Oral), H302 (ATE=820 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
nitrilotriacetic acid substance with national workplace exposure limit(s) (DE)	CAS-No.: 139-13-9 EC-No.: 205-355-7 REACH-no: 01-2119968928-12-xxxx	≥ 0.25 – < 1	Eye Irrit. 2, H319 Carc. 2, H351
	CAS-No.: 5538-95-4 EC-No.: 226-902-6	≥ 0.25 – < 1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400
dodecylamine	CAS-No.: 124-22-1 EC-No.: 204-690-6	< 0.1	Skin Corr. 1B, H314 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention. Call a physician immediately.

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a physician immediately.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Do NOT induce vomiting. Drink plenty of water. Rinse mouth. Call a physician immediately. Do not induce vomiting.

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

Symptoms/effects after inhalation	: Irritation of the respiratory tract.
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Halons. Strong water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Hydrogen chloride. Carbon dioxide. Carbon monoxide. Nitrogen oxides.
--	---

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe mist, vapours, spray.
----------------------	---

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
----------------------	---

6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Take up liquid spill into absorbent material. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information	: Disposal must be done according to official regulations.

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

6.4. Reference to other sections

See Section 8. See Section 13. Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe mist, vapours, spray.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Protect against frost. Protect from sunlight. Store in a well-ventilated place. Keep cool. Store locked up.
- Maximum storage period : 30 months
- Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	0.05 mg/m ³ (E)
Peak exposure limitation factor	8(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtbeschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900
nitrilotriacetic acid (139-13-9)	
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	2 mg/m ³ (E)
Peak exposure limitation factor	4(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtbeschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden; 35 - Mischexposition mit Eisenverbindungen vermeiden (Fe-NTA-Bildung)
Regulatory reference	TRGS900

8.1.2. Recommended monitoring procedures

No additional information available

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	8.96 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.789 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.04 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.118 mg/m ³
Long-term - systemic effects, dermal	3.2 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.001 mg/l
PNEC aqua (marine water)	0.0001 mg/l
PNEC aqua (intermittent, freshwater)	0.00015 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.2 mg/kg dwt
PNEC sediment (marine water)	0.13 mg/kg dwt
PNEC (Soil)	
PNEC soil	45.34 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	0.18 mg/l
nitrilotriacetic acid (139-13-9)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	11.2 mg/m ³
Long-term - systemic effects, dermal	169.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.7 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	254.4 mg/kg bodyweight
Acute - systemic effects, inhalation	2.7 mg/m ³
Long-term - systemic effects, oral	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.9 mg/m ³
Long-term - systemic effects, dermal	84.8 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.93 mg/l
PNEC aqua (marine water)	0.093 mg/l
PNEC aqua (intermittent, freshwater)	1 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	5.77 mg/kg dwt
PNEC sediment (marine water)	0.577 mg/kg dwt

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

nitrilotriacetic acid (139-13-9)	
PNEC (Soil)	
PNEC soil	0.606 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	400 mg/l
2,2'-iminodiethylamine (111-40-0)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	92.1 mg/m ³
Acute - local effects, inhalation	2.6 mg/m ³
Long-term - systemic effects, dermal	11.4 mg/kg bodyweight/day
Long-term - local effects, dermal	1.1 mg/cm ²
Long-term - systemic effects, inhalation	15.4 mg/m ³
Long-term - local effects, inhalation	0.87 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	4.88 mg/kg bodyweight/day
Acute - systemic effects, inhalation	27.5 mg/m ³
Long-term - systemic effects, inhalation	4.6 mg/m ³
Long-term - systemic effects, dermal	4.88 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.56 mg/l
PNEC aqua (marine water)	0.056 mg/l
PNEC aqua (intermittent, freshwater)	0.32 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1072 mg/kg dwt
PNEC sediment (marine water)	107.2 mg/kg dwt
PNEC (Soil)	
PNEC soil	7.97 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	6 mg/l
Tridecylamine, branched and linear (86089-17-0)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.13 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.88 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	0.063 mg/kg bodyweight
PNEC (Water)	
PNEC aqua (freshwater)	15 ng/l
PNEC aqua (marine water)	1.5 ng/l
PNEC aqua (intermittent, freshwater)	150 ng/l

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Tridecylamine, branched and linear (86089-17-0)	
PNEC (Sediment)	
PNEC sediment (freshwater)	19.1 µg/kg dw
PNEC sediment (marine water)	19.1 µg/kg dw
PNEC (Soil)	
PNEC soil	3.8 µg/kg
PNEC (Oral)	
PNEC oral (secondary poisoning)	1.1 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	400 µg/L
dodecylamine (124-22-1)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1 mg/m ³
Long-term - systemic effects, inhalation	0.38 mg/m ³
Long-term - local effects, inhalation	1 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.04 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.035 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.00026 mg/l
PNEC aqua (marine water)	0.000026 mg/l
PNEC aqua (intermittent, freshwater)	0.0016 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.76 mg/kg dwt
PNEC sediment (marine water)	0.376 mg/kg dwt
PNEC (Soil)	
PNEC soil	10 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	0.55 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Wear closed safety glasses. EN 166. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. EN 13034. EN ISO 13688

Hand protection:

Chemically resistant protective gloves. EN 374. Chemical resistant PVC gloves (to European standard EN 374 or equivalent). Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 143. Breathing apparatus with filter. Filter. AX-P3. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not breathe mist, vapours, Aerosol. Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless.
Odour	: perfumed.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: > 100 °C
Flammability	: Not applicable
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not applicable
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not applicable
Auto-ignition temperature	: Not self-igniting
Decomposition temperature	: Not available
pH	: 11 – 11.6 (20 °C; 100 g/l)
Viscosity, kinematic	: Not available
Solubility	: Water: Miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Vapour pressure	: ≈ 10 hPa (20 °C; Water)
Vapour pressure at 50°C	: Not available
Density	: 1.005 – 1.015 g/cm ³
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Acids. Oxidizing agent.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Harmful if inhaled.

Bechtol Premium	
ATE CLP (oral)	1936.432 mg/kg bodyweight
ATE CLP (dermal)	> 2000
ATE CLP (dust,mist)	1.111 mg/l/4h
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	
LD50 oral rat	261 mg/kg (OECD 401 method)
LD50 dermal rat	> 2000 mg/kg
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides (68391-01-5)	
LD50 oral rat	344 mg/kg
LD50 dermal rabbit	3412 mg/kg
nitrilotriacetic acid	
LD50 dermal rabbit	> 10000 mg/kg bodyweight
2,2'-iminodiethylamine (111-40-0)	
LD50 oral rat	1553 mg/kg (male)
LD50 dermal rabbit	1045 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 0.07 mg/l/4h (OECD 403 method)

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Tridecylamine, branched and linear (86089-17-0)	
LD50 oral rat	820 mg/kg (female)
dodecylamine (124-22-1)	
LD50 oral rat	> 2000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)
Skin corrosion/irritation	: Causes severe skin burns. pH: 11 – 11.6 (20 °C; 100 g/l)
Serious eye damage/irritation	: Causes serious eye damage. pH: 11 – 11.6 (20 °C; 100 g/l)
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
nitrilotriacetic acid (139-13-9)	
NOAEL (chronic, oral, animal/male, 2 years)	262.2 mg/kg bodyweight/day (Read-across; (OECD 453 method))
NOAEL (chronic, oral, animal/female, 2 years)	339.9 mg/kg bodyweight/day (Read-across; (OECD 453 method))
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
2,2'-iminodiethylamine (111-40-0)	
STOT-single exposure	May cause respiratory irritation.
Tridecylamine, branched and linear (86089-17-0)	
STOT-single exposure	May cause respiratory irritation.
dodecylamine (124-22-1)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	
STOT-repeated exposure	May cause damage to organs (kidneys) through prolonged or repeated exposure.
dodecylamine (124-22-1)	
STOT-repeated exposure	May cause damage to organs (liver, immune system, intestinal tract) through prolonged or repeated exposure (oral).
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	
LC50 - Fish [1]	0.431 mg/l (96 h; Danio rerio; (OECD 203 method))
EC50 - Crustacea [1]	0.078 mg/l (48h; Daphnia magna; (OECD 202 method))

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	
ErC50 algae	0.015 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))
NOEC chronic crustacea	0.024 mg/l (21 d; Daphnia magna; (OECD 211 method))
NOEC chronic algae	0.009 mg/l (72 h; Desmodesmus subspicatus; (OECD 201 method))
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides (68391-01-5)	
LC50 - Fish [1]	0.28 mg/l (96h; Oncorhynchus mykiss)
EC50 - Crustacea [1]	0.016 mg/l (48 h; Daphnia magna; (OECD 202 method))
ErC50 algae	0.049 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))
NOEC chronic fish	0.0322 mg/l (34d; Pimephales promelas.)
NOEC chronic crustacea	≥ 0.0042 mg/l (21 d; Daphnia magna)
nitrilotriacetic acid	
NOEC chronic fish	> 54 mg/l (224 d; Pimephales promelas; Read-across)
NOEC chronic crustacea	9.3 mg/l (147 d; Gammarus pseudolimnaeus; Read-across)
NOEC chronic algae	1.43 mg/l (72 h; Desmodesmus subspicatus; Read-across)
2,2'-iminodiethylamine	
NOEC chronic fish	> 10 mg/l (28 d; Gasterosteus aculeatus; (OECD 210 method))
NOEC chronic algae	10 mg/l (72 h; Pseudokirchnerella subcapitata; (OECD 201 method))
Tridecylamine, branched and linear (86089-17-0)	
LC50 - Fish [1]	0.065 mg/l (96h; Leuciscus idus)
EC50 - Crustacea [1]	0.015 mg/l (48h; Daphnia magna; Read-across)
ErC50 algae	0.2 mg/l (96 h; Dunaliella parva; Read-across)
dodecylamine (124-22-1)	
LC50 - Fish [1]	0.42 mg/l (96 h; Danio rerio; (OECD 203 method))
EC50 - Crustacea [1]	0.15 mg/l (48 h; Daphnia magna; (OECD 202 method))
ErC50 algae	0.05 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))
NOEC chronic crustacea	0.013 mg/l (21 d; Daphnia magna; Read-across; (OECD 211 method))
12.2. Persistence and degradability	
Bechtol Premium	
Persistence and degradability	The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	
Persistence and degradability	Readily biodegradable.
Biodegradation	79 % (28 d; (OECD 301D method))
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides (68391-01-5)	
Persistence and degradability	Readily biodegradable.
Biodegradation	95.5 % (28 d; (OECD 301B method))

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

nitrilotriacetic acid (139-13-9)	
Persistence and degradability	Readily biodegradable.
Biodegradation	89 % (28 d; (OECD 301B method))
2,2'-iminodiethylamine (111-40-0)	
Persistence and degradability	Readily biodegradable.
Biodegradation	87 % (21 d; (OECD 301D method))
Tridecylamine, branched and linear (86089-17-0)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	< 10 % (56 d; (OECD 301B method))
dodecylamine (124-22-1)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Bechtol Premium	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Bioaccumulative potential	The product has not been tested.
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	
Partition coefficient n-octanol/water (Log Pow)	0.34 (20 °C; Quantitative structure-activity relationship (QSAR))
nitrilotriacetic acid (139-13-9)	
Partition coefficient n-octanol/water (Log Pow)	-3.81 (25 °C; Quantitative structure-activity relationship (QSAR))
Bioaccumulative potential	Bioaccumulation unlikely.
2,2'-iminodiethylamine (111-40-0)	
BCF - Fish [1]	2.8 – 6.3 (0,2 mg/L; Cyprinus carpio; (OECD 305 method))
Partition coefficient n-octanol/water (Log Pow)	-5.58 (20 °C; pH 7; (calculated value))
dodecylamine (124-22-1)	
Partition coefficient n-octanol/water (Log Pow)	1.16 – 9.16 At 20-25°C

12.4. Mobility in soil

Bechtol Premium	
Ecology - soil	The product has not been tested.
nitrilotriacetic acid (139-13-9)	
Ecology - soil	Expected to be highly mobile in soil.
2,2'-iminodiethylamine (111-40-0)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.4 – 4.6 (25 °C; EPA OTS 796.2750)

12.5. Results of PBT and vPvB assessment

Bechtol Premium	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
Sewage disposal recommendations	: Do not allow into drains or water courses.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations. Recycle or dispose of in compliance with current legislation.
European List of Waste (LoW) code	: 07 06 01* - aqueous washing liquids and mother liquors
HP Code	: HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure. HP8 - "Corrosive:" waste which on application can cause skin corrosion. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1903	UN 1903	UN 1903	UN 1903	UN 1903
14.2. UN proper shipping name				
DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine)	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine)	Disinfectant, liquid, corrosive, n.o.s. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine)	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine)	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine)
Transport document description				
UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine), 8, II, (E), ENVIRONMENTALLY HAZARDOUS	UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine), 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1903 Disinfectant, liquid, corrosive, n.o.s. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine), 8, II, ENVIRONMENTALLY HAZARDOUS	UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine), 8, II, ENVIRONMENTALLY HAZARDOUS	UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine), 8, II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
8	8	8	8	8
				

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
Contains, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C9
Special provisions (ADR) : 274
Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E2
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel restriction code (ADR) : E

Transport by sea

Special provisions (IMDG) : 274
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B

Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y840
PCA limited quantity max net quantity (IATA) : 0.5L
PCA packing instructions (IATA) : 851
PCA max net quantity (IATA) : 1L
CAO max net quantity (IATA) : 30L
Special provisions (IATA) : A3, A803

Inland waterway transport

Classification code (ADN) : C9
Special provisions (ADN) : 274
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2

Rail transport

Classification code (RID) : C9
Special provisions (RID) : 274
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Transport category (RID) : 2
Hazard identification number (RID) : 80

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Other information, restriction and prohibition regulations : Take note of Directive 94/33/EC on the protection of young people at work. Regulation (EC) No. 648/2004 of 31 March 2004 on detergents.

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(b)	Bechtol Premium ; N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine ; Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; 2,2'-iminodiethylamine ; Tridecylamine, branched and linear ;
3(c)	Bechtol Premium ; N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine ; Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides ; Tridecylamine, branched and linear ;

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Seveso Directive (Disaster Risk Reduction)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1	100	200

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Employment restrictions : Take note of Directive 92/85/EC on the safety and health of pregnant workers at work.
Take note of Directive 94/33/EC on the protection of young people at work.
Employment prohibitions or restrictions on the protection of young people at work according to § 22 JArbSchG in the case of formation of hazardous substances have to be observed.

National Rules and Recommendations : TRGS 400: Risk Assessment for Activities involving Hazardous Substances.
TRGS 401: Risks resulting from skin contact - identification, assessment, measures.
TRGS 402: Identification and Assessment of the Risks from Activities involving Hazardous Substances: Inhalation Exposure.
TRGS 500: Protective measures.
TRGS 510: Storage of hazardous substances in non-stationary containers.
TRGS 520: Construction and operation of collection points and temporary storage for small amounts of hazardous waste.
TRGS 900: Occupational Exposure Limits.

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Storage class (LGK, TRGS 510)	: LGK 8B - Non-combustible corrosive substances.
Hazardous Incident Ordinance (12. BImSchV)	: Listed in the 12. BImSchV (Annex I) under: 1.3.1 - Quantity threshold for operational area under § 1 para. 1 - Sentence 1 :100000 kg - Sentence 2 :200000 kg

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	General revision		
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
3.2	Labelling of contents	Modified	
11	Toxicological information	Modified	

Abbreviations and acronyms:

CAS	Chemical Abstract Service
ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
NOEC	No-Observed Effect 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 Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative
CAS-No.	Chemical Abstract Service number

Data sources : European Chemicals Agency, <http://echa.europa.eu/>. MSDSs of the suppliers. Information provided by the manufacturer.

Department issuing data specification sheet: : KFT Chemieservice GmbH
Im Leuschnerpark 3
D-64347 Griesheim

Phone: +49 6155-8981-400
Fax: +49 6155 8981-500
SDS Service: +49 6155 8981-522

Contact person : Dr. Maximilian Gatterdam

Other information : Version/s 1.00 - 6.00 + 8.01 is/are not available in this language.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

Bechtol Premium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Acute Tox. 4 (Oral)	H302	Calculation method
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

KFT SDS EU 01

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.