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

1.1 Product identifier

deconex 24 LIQ

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

Reserved for industrial and professional use.

Relevant identified uses

Detergent

1.3 Details of the supplier of the safety data sheet

Borer Chemie Deutschland GmbH

Street : Wallbrunnstrasse 24
Postal code/city : 79539 Lörrach
Country : Deutschland
Telephone : +49 7733 3603530
Telefax : +497733 3603539
Information contact :

Manufacturer

Borer Chemie AG

Street : Gewerbestrasse 13
Postal code/city : 4528 Zuchwil
Country : Schweiz
Telephone : +41 32 686 56 00
Telefax : +41 32 686 56 90
Information contact : product.safety@borer.ch

1.4 Emergency telephone number

Giftnotruf der Charité - Universitätsmedizin Berlin, 12203 Berlin, Notruf: +49 30 19 24 0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Aquatic Chronic 3 ; H412 - Hazardous to the aquatic environment : Chronic 3 ; Harmful to aquatic life with long lasting effects.

Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.

Skin Corr. 1A ; H314 - Skin corrosion/irritation : Category 1A ; Causes severe skin burns and eye damage.

Met. Corr. 1 ; H290 - Corrosive to metals : Category 1 ; May be corrosive to metals.

2.2 Label elements

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

Hazard pictograms

Corrosion (GHS05)

Signal word

Danger

Hazard components for labelling

POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3
DIPOTASSIUM TRIOXOSILICATE ; CAS No. : 1312-76-1

Hazard statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P310	Immediately call a POISON CENTER.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

POTASSIUM HYDROXIDE ; REACH registration No. : 01-2119487136-33-XXXX ; EC No. : 215-181-3; CAS No. : 1310-58-3

Weight fraction : ≥ 15 - < 30 %

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1A ; H314 Acute Tox. 4 ; H302

TETRAPOTASSIUM PYROPHOSPHATE ; REACH registration No. : 01-2119489369-18-XXXX ; EC No. : 230-785-7; CAS No. : 7320-34-5

Weight fraction : ≥ 15 - < 30 %

Classification 1272/2008 [CLP] : Eye Irrit. 2 ; H319

DIPOTASSIUM TRIOXOSILICATE ; REACH registration No. : 01-2119456888-17-XXXX ; EC No. : 215-199-1; CAS No. : 1312-76-1

Weight fraction : ≥ 5 - < 15 %

Classification 1272/2008 [CLP] : Skin Corr. 1B ; H314 Eye Dam. 1 ; H318

SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; REACH registration No. : 01-2119488154-34-XXXX ; EC No. : 231-668-3; CAS No. : 7681-52-9

Weight fraction : < 1 %

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1B ; H314 STOT SE 3 ; H335 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

Additional information

Full text of H- and EUH-phrases: see section 16.

Regulation (EC) No. 648/2004: Labelling for contents

phosphates	15 - < 30	%
phosphonates	< 5	%
chlorine-based bleaching agents	< 5	%

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.

Following inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of skin contact

Flush away with water and rinse. In case of skin irritation, consult a physician.

After eye contact

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.

After ingestion

Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Call a physician immediately.

Self-protection of the first aider

No special measures are necessary.

4.2 Most important symptoms and effects, both acute and delayed

Irritating to eyes, respiratory system and skin.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

The product itself does not burn.

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. Water spray jet, foam, extinguishing powder. Carbon dioxide (CO2)

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

Chlorine (Cl2) Hydrogen chloride (HCl)

Hazardous combustion products

Fire generates toxic gases.

5.3 Advice for firefighters

Special protective equipment for firefighters

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

5.4 Additional information

None

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Take the precautions customary when handling chemicals.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

See Chapter 7, 8 & 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. See section 8 of the safety data sheet (general health and safety measures)

Protective measures

Measures to prevent fire

No anti-explosion measures necessary.

Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff.

7.2 Conditions for safe storage, including any incompatibilities

Hints on joint storage

Storage class : 8B

Storage class (TRGS 510) : 8B

Further information on storage conditions

Keep only in the original container in a cool, well-ventilated place. Do not store together with Acids, oxidizing agents,

Storage temperature : Optimal storage temperature 20 °C . For details, see product label.

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL/DMEL and PNEC values

DNEL/DMEL

Limit value type :	DNEL worker (local) (POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	1 mg/m^3
Limit value type :	DNEL worker (systemic) (TETRAPOTASSIUM PYROPHOSPHATE ; CAS No. : 7320-34-5)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	44.08 mg/m^3
Limit value type :	DNEL worker (systemic) (DIPOTASSIUM TRIOXOSILICATE ; CAS No. : 1312-76-1)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	5.61 mg/m^3
Limit value type :	DNEL worker (systemic) (DIPOTASSIUM TRIOXOSILICATE ; CAS No. : 1312-76-1)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	1.49 mg/kg

8.2 Exposure controls

Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and clear transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; Ensure suitable personal protective equipment is available; Clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions.

Personal protection equipment

Eye/face protection

Eye glasses with side protection

Skin protection

Hand protection

In full contact: Glove material: nitrile rubber Layer thickness: 0.4 mm Breakthrough time: > 480 Min. In splash contact: Glove material: nitrile rubber Layer thickness: 0.4 mm Breakthrough time: > 480 Min. The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374.

Body protection

Light protective clothing.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Suitable respiratory protection apparatus

Filtering device with filter or ventilator filtering device of type: A

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : clear, colourless

Odour : characteristic

Safety relevant basis data

Melting point/melting range :			not relevant	
Initial boiling point and boiling range :	(1013 hPa)		100	°C
Decomposition temperature :		>	230	°C
Flash point :			not applicable	
Ignition temperature :			not applicable	
Lower explosion limit :			not applicable	
Upper explosion limit :			not applicable	
Vapour pressure :	(25 °C)	approx.	32	hPa
Density :	(20 °C)		1.5	g/cm^3
Solvent separation test :	(20 °C)		not determined	
Water solubility :	(20 °C)	>	100	g/l
pH value (solvent = drinking water) :	(20 °C / 10 g/l)	approx.	13	
log P O/W :			not determined	
Flow time :	(20 °C)		not determined	DIN-cup 4 mm
Viscosity :	(20 °C)		not determined	
Evaporation rate :			not relevant	
Vapourisation rate :			not relevant	
Flammable solids :	Not applicable.			
Flammable gases :	Not applicable.			
Oxidising liquids :	Not applicable.			
Explosive properties :	Not explosive according to EU A.14.			

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage and handling conditions(See section 7).

10.2 Chemical stability

Thermal decomposition above 230 °C.

10.3 Possibility of hazardous reactions

Exothermic reaction with: Acids, oxidizing agents,

10.4 Conditions to avoid

None, if handled according to order.

10.5 Incompatible materials

Acids, oxidizing agents,

10.6 Hazardous decomposition products

Chlorine.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter :	ATEmix calculated
Exposure route :	Oral
Species :	Rat
Effective dose :	> 2000 mg/kg

Irritant and corrosive effects

Causes severe skin burns and eye damage.

Primary irritation to the skin

Parameter :	Primary irritation to the skin (DIPOTASSIUM TRIOXOSILICATE ; CAS No. : 1312-76-1)

Irritation to eyes

Parameter :	Irritation to eyes (DIPOTASSIUM TRIOXOSILICATE ; CAS No. : 1312-76-1)

Sensitisation

No information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

No information available.

STOT-single exposure

No information available.

STOT-repeated exposure

No information available.

Aspiration hazard

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) algae toxicity

Parameter :	EC50 (TETRAPOTASSIUM PYROPHOSPHATE ; CAS No. : 7320-34-5)
Species :	Daphnia
Effective dose :	> 100 mg/l
Exposure time :	48 h
Parameter :	EC50 (DIPOTASSIUM TRIOXOSILICATE ; CAS No. : 1312-76-1)
Species :	Daphnia
Effective dose :	> 2000 mg/l
Exposure time :	48 h
Parameter :	EC50 (SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; CAS No. : 7681-52-9)
Species :	Algae
Effective dose :	46 mg/l
Exposure time :	96 h

Effects in sewage plants

Parameter :	Chemical oxygen demand (COD)
Effective dose :	4.6 g/kg

12.2 Persistence and degradability

Biodegradation

Parameter :	Biodegradability according to OECD
Effective dose :	> 90 %

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
No information available.

12.6 Other adverse effects
No information available.

12.7 Additional ecotoxicological information
None

SECTION 13: Disposal considerations

13.1 Waste treatment methods
In accordance with local official regulations.

SECTION 14: Transport information

14.1 UN number
UN 3266

14.2 UN proper shipping name
Land transport (ADR/RID)
CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE · DIPOTASSIUM TRIOXOSILICATE)

Sea transport (IMDG)
CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE · DIPOTASSIUM TRIOXOSILICATE)

Air transport (ICAO-TI / IATA-DGR)
CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE · DIPOTASSIUM TRIOXOSILICATE)

14.3 Transport hazard class(es)
Land transport (ADR/RID)

Class(es) :	8
Classification code :	C5
Hazard identification number (Kemler No.) :	80
Tunnel restriction code :	E
Special provisions :	LQ 1 l · E 2
Hazard label(s) :	8

Sea transport (IMDG)

Class(es) :	8
EmS-No. :	F-A / S-B
Special provisions :	LQ 1 l · E 2 · Segregation Group 18 - Alkalis
Hazard label(s) :	8

Air transport (ICAO-TI / IATA-DGR)

Class(es) :	8
Special provisions :	E 2
Hazard label(s) :	8

14.4 Packing group
II

14.5 Environmental hazards
Land transport (ADR/RID) : No
Sea transport (IMDG) : No
Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

May be corrosive to metals (H290)

SECTION 15: Regulatory information

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

National regulations

Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to VwVwS

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

The user is responsible for the observance of all required statutory provisions.

16.1 Indication of changes

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

16.2 Abbreviations and acronyms

None

16.3 Key literature references and sources for data

None

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

No information available.

16.5 Relevant H- and EUH-phrases (Number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

16.6 Training advice

None

16.7 Additional information

None

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.