

Safety Data Sheet

according to Regulation (EC) No 1907/2006

218(E) HDP

Revision date: 02.10.2020

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

1.1. Product identifier

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

Use of the substance/mixture

A high-alkaline, low-foaming cleaner.

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	Chesterton International GmbH	
Street:	Am Lenzenfleck 23	
Place:	DE-85737 Ismaning GERMANY	
Telephone:	+49 89 99 65 46 - 0	Telefax: +49 89 99 65 46 - 50
e-mail:	eu-sds@chesterton.com	
e-mail (Contact person):	eu-sds@chesterton.com	
Internet:	www.chesterton.com	
Responsible Department:	eu-sds@chesterton.com	

1.4. Emergency telephone number:

+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Causes severe skin burns and eye damage.

Causes serious eye damage.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Potassium hydroxide

2-aminoethanol, ethanolamine

1-aminopropan-2-ol; isopropanolamine

Signal word: Danger

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Pictograms:



Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves and eye/face protection.

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/doctor.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
1310-58-3	Potassium hydroxide			1 - < 5 %
	215-181-3	019-002-00-8	01-2119487136-33	
	Met. Corr. 1, Acute Tox. 4, Skin Corr. 1A; H290 H302 H314			
141-43-5	2-aminoethanol, ethanolamine			1 - < 5 %
	205-483-3	603-030-00-8	01-2119486455-28	
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Aquatic Chronic 3; H332 H312 H302 H314 H318 H412			
497-19-8	sodium carbonate			1 - < 5 %
	207-838-8	011-005-00-2	01-2119485498-19	
	Eye Irrit. 2; H319			
78-96-6	1-aminopropan-2-ol; isopropanolamine			1 - < 5 %
	201-162-7	603-082-00-1	01-2119475331-43	
	Acute Tox. 4, Skin Corr. 1B; H312 H314			

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

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Labelling for contents according to Regulation (EC) No 648/2004

< 5 % non-ionic surfactants, preservation agents, < 5 % polycarboxylates.

Further Information

No information available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a doctor.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Do NOT induce vomiting.
Immediately call a doctor.

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

Causes severe skin burns and eye damage.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry extinguishing powder. Carbon dioxide (CO₂). alcohol resistant foam. Water spray jet

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

No information available.

5.3. Advice for firefighters

Special protective equipment for firefighters Protective clothing.
In case of fire: Wear self-contained breathing apparatus.

Additional information

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

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See protective measures under point 7 and 8.

Provide adequate ventilation.

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover 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 protective measures under point 7 and 8.

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

See section 8. Wear personal protection equipment (refer to section 8).

Advice on protection against fire and explosion

No special measures are necessary.

Further information on handling

Keep container tightly closed and dry.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store in a cool dry place. Keep container tightly closed.

Keep/Store only in original container.

Protect against direct sunlight.

Protect against: Frost

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
141-43-5	2-Aminoethanol	1	2.5		TWA (8 h)	WEL
		3	7.6		STEL (15 min)	WEL
1310-58-3	Potassium hydroxide	-	2		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
1310-58-3	Potassium hydroxide			
	Worker DNEL, long-term	inhalation	local	1 mg/m ³
	Consumer DNEL, long-term	inhalation	local	1 mg/m ³
	Worker DNEL, long-term	inhalation	systemic	1 mg/m ³
	Consumer DNEL, long-term	inhalation	systemic	1 mg/m ³
141-43-5	2-aminoethanol, ethanolamine			
	Worker DNEL, long-term	inhalation	local	0,51 mg/m ³
	Consumer DNEL, long-term	inhalation	local	0,28 mg/m ³
	Consumer DNEL, long-term	oral	systemic	1,5 mg/kg bw/day
	Consumer DNEL, long-term	dermal	systemic	1,5 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	0,18 mg/m ³
	Worker DNEL, long-term	dermal	systemic	3 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	1 mg/m ³
497-19-8	sodium carbonate			
	Consumer DNEL, acute	inhalation	local	10 mg/m ³
	Worker DNEL, long-term	inhalation	local	10 mg/m ³
	Consumer DNEL, long-term	inhalation	local	10 mg/m ³
78-96-6	1-aminopropan-2-ol; isopropanolamine			
	Worker DNEL, long-term	inhalation	systemic	3,6 mg/m ³
	Consumer DNEL, long-term	oral	systemic	0,76 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	2,1 mg/m ³

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PNEC values

CAS No	Substance	
	Environmental compartment	Value
141-43-5	2-aminoethanol, ethanolamine	
	Freshwater	0,07 mg/l
	Freshwater (intermittent releases)	0,028 mg/l
	Marine water	0,007 mg/l
	Freshwater sediment	0,357 mg/kg
	Marine sediment	0,036 mg/kg
	Micro-organisms in sewage treatment plants (STP)	100 mg/l
	Soil	1,29 mg/kg
78-96-6	1-aminopropan-2-ol; isopropanolamine	
	Freshwater	0,033 mg/l
	Freshwater (intermittent releases)	0,327 mg/l
	Marine water	0,003 mg/l
	Freshwater sediment	0,229 mg/kg
	Marine sediment	0,023 mg/kg
	Micro-organisms in sewage treatment plants (STP)	3,3 mg/l
	Soil	0,026 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Protective and hygiene measures

Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands and face before breaks and after work and take a shower if necessary.

When using do not eat, drink or smoke.

Eye/face protection

Suitable eye protection:

Eye glasses with side protection
goggles

Hand protection

Tested protective gloves must be worn: EN ISO 374

NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

Thickness of the glove material $\geq 0,4$ mm

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Wearing time with occasional contact (splashes): max. 480 min. (NBR (Nitrile rubber))

Wearing time with permanent contact 240 - 480 min (NBR (Nitrile rubber))

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Observe the wear time limits as specified by the manufacturer.

Skin protection

Protective clothing, Rubber boots, Apron

Respiratory protection

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

Filtering device (full mask or mouthpiece) with filter: A-P2

Environmental exposure controls

No special measures are necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	mild detergent odour

pH-Value:	13,7	Test method
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Changes in the physical state

Melting point:	No data available
Initial boiling point and boiling range:	100 °C
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
Flash point:	not applicable

Flammability

Solid:	No data available
Gas:	No data available

Explosive properties

not explosive according to EU A.14

Lower explosion limits:	No data available
Upper explosion limits:	No data available
Ignition temperature:	~382 °C

Auto-ignition temperature

Solid:	No data available
Gas:	No data available

Decomposition temperature:	No data available
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Oxidizing properties

No information available.

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Vapour pressure: (at 20 °C)	No data available
Density (at 20 °C):	1,07 g/cm ³
Water solubility:	completely miscible
Solubility in other solvents	
No information available.	
Partition coefficient:	>1
Viscosity / dynamic: (at 20 °C)	<20 mPa·s
Vapour density:	>1 (air = 1)
Evaporation rate:	<1 (Ether = 1)

9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

This material is considered to be non-reactive under normal use conditions.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Oxidising agent, strong; Aluminium; Zinc

10.6. Hazardous decomposition products

Nitrogen oxides (NO_x), Carbon dioxide (CO₂), Carbon monoxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1310-58-3	Potassium hydroxide				
	oral	LD50 333 mg/kg	Rat	Fund. Appl. Toxicol., 8, 97-100 (1987)	OECD Guideline 425
141-43-5	2-aminoethanol, ethanolamine				
	oral	LD50 1089 mg/kg	Rat	Study report (1988)	OECD Guideline 401
	dermal	LD50 2504 mg/kg	Rabbit	Study report (1988)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 >1,48 mg/l	Rat		
	inhalation aerosol	ATE 1,5 mg/l			
497-19-8	sodium carbonate				
	oral	LD50 2800 mg/kg	Rat	Study report (1978)	Groups of 5 male and 5 female rats were
	dermal	LD50 > 2000 mg/kg	Rabbit	Study report (1978)	other: EPA 16 CFR 1500.40
78-96-6	1-aminopropan-2-ol; isopropanolamine				
	oral	LD50 2813 mg/kg	Rat	Study report (1965)	OECD Guideline 401
	dermal	LD50 1600 mg/kg	Rabbit		

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

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.

SECTION 12: Ecological information

12.1. Toxicity

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
1310-58-3	Potassium hydroxide					
	Acute fish toxicity	LC50 80 mg/l	96 h	Gambusia affinis	IUCLID	
141-43-5	2-aminoethanol, ethanolamine					
	Acute fish toxicity	LC50 349 mg/l	96 h	Cyprinus carpio	Study report (1997)	other: Directive 92/69/EEC, C.1.
	Acute algae toxicity	ErC50 2,8 mg/l	72 h	Pseudokirchneriella subcapitata	unpublished (1997)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l 27,04	48 h	Daphnia magna	Study report (2012)	OECD Guideline 202
	Fish toxicity	NOEC mg/l 1,24	41 d	Oryzias latipes	unpublished (2008)	OECD Guideline 210
	Crustacea toxicity	NOEC mg/l 0,85	21 d	Daphnia magna	unpublished (1997)	other: OECD 202 "Daphnia sp., Acute Immo
497-19-8	sodium carbonate					
	Acute fish toxicity	LC50 300 mg/l	96 h	Lepomis macrochirus	Proc. 13th Ind. Waste Conf., Purdue Univ	Method: Recommendations of the Committee
	Acute crustacea toxicity	EC50 200 - 227 mg/l	48 h	Ceriodaphnia sp.	Ecotoxicol. Environ. Saf., 44, 196-206 (Method: method developed by NSW Environm
78-96-6	1-aminopropan-2-ol; isopropanolamine					
	Acute fish toxicity	LC50 mg/l > 1000	96 h	Leuciscus idus	Study report (1987)	other: German industrial standard test g
	Acute algae toxicity	ErC50 mg/l 32,7	72 h	Desmodesmus subspicatus	Study report (1989)	other: German industrial standard test g
	Acute crustacea toxicity	EC50 mg/l 108,82	48 h	Daphnia magna	Study report (1987)	Method: other: Directive 79/831/EEC, Ann
	Acute bacteria toxicity	(> 261 mg/l)	0,5 h	Activated sludge	Study report (1978)	Method: other

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
141-43-5	2-aminoethanol, ethanolamine	-2,3
78-96-6	1-aminopropan-2-ol; isopropanolamine	-0,93

BCF

CAS No	Chemical name	BCF	Species	Source
141-43-5	2-aminoethanol, ethanolamine	2,5		SAR and QSAR in Envi
78-96-6	1-aminopropan-2-ol; isopropanolamine	3,16	fish	United States Enviro

12.4. Mobility in soil

No information 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. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1814
14.2. UN proper shipping name:	POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Classification code:	C5
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number:	UN 1814
14.2. UN proper shipping name:	POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es):	8

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14.4. Packing group: II
 Hazard label: 8
 Classification code: C5
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1814
14.2. UN proper shipping name: POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8
 Special Provisions: -
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-A, S-B
 Segregation group: alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1814
14.2. UN proper shipping name: POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8
 Special Provisions: A3 A803
 Limited quantity Passenger: 0.5 L
 Passenger LQ: Y840
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 851
 IATA-max. quantity - Passenger: 1 L
 IATA-packing instructions - Cargo: 855
 IATA-max. quantity - Cargo: 30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No information available.

SECTION 15: Regulatory information

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

EU regulatory information

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Restrictions on use (REACH, annex XVII):

Entry 3: 1-aminopropan-2-ol; isopropanolamine

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Potassium hydroxide

2-aminoethanol, ethanolamine

sodium carbonate

1-aminopropan-2-ol; isopropanolamine

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,3,9.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer

(Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

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vPvB: very persistent, very bioaccumulative

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

SVHC: Substance of Very High Concern

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

Classification	Classification procedure
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Further Information

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself.

No warranty is expressed or implied regarding the suitability of the product for the user's particular purpose.

The user must make their own determination as to suitability.

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