Telefax: +49 (0) 781.600-23 19



Safety Data Sheet

according to Regulation (EC) No 1907/2006

HYLINE HLU-30

Revision date: 04.10.2018 Product code: Page 1 of 13

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

1.1. Product identifier

HYLINE HLU-30

Further trade names

Article no. (user): 72204, 72209, 72214

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

Use of the substance/mixture

Professional: Cleaning agent, alkaline.

Uses advised against

none

1.3. Details of the supplier of the safety data sheet

Company name: HOBART GmbH

Street: Robert-Bosch-Strasse 17
Place: D-77656 Offenburg
Telephone: +49 (0) 781.600-0

e-mail: info@hobart.de Internet: www.hobart.de

Responsible Department: Dr. Gans-Eichler e-mail: info@tge-consult.de

Chemieberatung GmbH Tel.: +49(0)251/394868-69 Raesfeldstr. 22 www.tge-consult.de

D-48149 Münster

1.4. Emergency telephone Poison Center Berlin: +49 (0) 30-19240

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1

Serious eye damage/eye irritation: Eye Dam. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes serious eye damage.

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

caustic potash, potassium hydroxide disodium metasilicate-pentahydrate Sodium hydroxide; caustic soda

Sodium Hypochlorite

Signal word: Danger



according to Regulation (EC) No 1907/2006

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Pictograms:



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

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

P280 Wear protective gloves/protective clothing/eye protection/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.

P501 Dispose of contents/container to local/regional/national/international regulations.

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

Chemical characterization

Contains > 1% active chlorine. (1 - 5 %)

Hazardous components

CAS No	Chemical name	Quantity					
	EC No	Index No	REACH No				
	Classification according to Regulation (EC) No. 1272/2008 [CLP]						
1310-58-3	caustic potash, potassi	um hydroxide		5 - 15 %			
	215-181-3	019-002-00-8	01-2119487136-33				
	Met. Corr. 1, Acute Tox	. 4, Skin Corr. 1A; H290 H302 H314					
10213-79-3	disodium metasilicate-p	pentahydrate		5 - 15 %			
	229-912-9	014-010-00-8	01-2119449811-37				
	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3; H290 H314 H318 H335						
1310-73-2	Sodium hydroxide; cau		1 - 5 %				
	215-185-5	011-002-00-6	01-2119457892-27				
	Met. Corr. 1, Skin Corr.						
7681-52-9	Sodium Hypochlorite	1 -< 2,5 %					
	231-668-3	017-011-00-1	01-2119488154-34				
	Met. Corr. 1, Skin Corr. Chronic 1; H290 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 % - < 15 % phosphates, < 5 % phosphonates, < 5 % polycarboxylates, < 5 % chlorine-based bleaching agents.

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

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

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician. In the case of lung irritation: Primary treatment using corticoide spray, eg. Auxiloson spray, Pulmicort-dosage-spray. (Auxiloson and Pulmicort are registered trademarks).

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. In case of skin irritation, consult a physician.

After contact with eyes

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

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Observe risk of aspiration if vomiting occurs. Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

@1102.B11011

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

First Aid, decontamination, treatment of symptoms.

In the case of lung irritation: Primary treatment using corticoide spray, eg. Auxiloson spray,

Pulmicort-dosage-spray. (Auxiloson and Pulmicort are registered trademarks).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Sand. Foam. Carbon dioxide (CO2). Extinguishing powder. In case of major fire and large quantities: Water spray jet. Water mist.

Unsuitable extinguishing media

High power water jet

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO2). Phosphorus oxides. Chlorine (Cl2) Hydrogen chloride (HCl)

5.3. Advice for firefighters

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

Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures



according to Regulation (EC) No 1907/2006

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6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothes.

Wear personal protection equipment. (See section 8.)

High slip hazard because of leaking or spilled product.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into soil/subsoil.

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.

Clear contaminated areas thoroughly.

6.4. Reference to other sections

Safe handling: see section 7 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Wear suitable protective clothing. (See section 8.)

Conditions to avoid: aerosol or mist formation

Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

Advices on general occupational hygiene: See section 8.

Shelf Life (months): 12

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Unsuitable materials for Container: Aluminium. Zinc.

Keep only in the original container in a cool, well-ventilated place away from acids. Keep container tightly closed. Handle and open container with care.

Make sure spills can be contained (e.g. sump pallets or kerbed areas).

Suitable floor material: Leachate-proof.

Recommended storage temperature: -10 - 20 °C

Advice on storage compatibility

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Radioactive substances. Infectious substances.

Further information on storage conditions

Protect against: Light. UV-radiation/sunlight. heat. moisture. frost.

storage temperature: 2 - 35°C

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin	
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according to Regulation (EC) No 1907/2006

HYLINE HLU-30								
Revision date:	04.10.2018	Pro	oduct code:				Page 5 of	f 13
7782-50-5	Chlorine		-	-		TWA (8 h)	WEL	
			0.5	1.5		STEL (15 min)	WEL	
1310-58-3	Potassium hydroxide		-	-		TWA (8 h)	WEL	
			-	2		STEL (15 min)	WEL	
1310-73-2	Sodium hydroxide		_	-		TWA (8 h)	WEL	
			-	2		STEL (15 min)	WEL	

DNEL/DMEL values

	_			
CAS No	Substance			
DNEL type		Exposure route	Effect	Value
1310-58-3	caustic potash, potassium hydroxide			
Worker DNEL	, long-term	inhalation	local	1 mg/m³
Consumer DN	EL, long-term	inhalation	local	1 mg/m³
10213-79-3	disodium metasilicate-pentahydrate			
Worker DNEL	, long-term	inhalation	systemic	6,22 mg/m³
Worker DNEL, long-term		dermal	systemic	1,49 mg/kg bw/day
1310-73-2	Sodium hydroxide; caustic soda			
Worker DNEL, long-term		inhalation	local	1 mg/m³
Consumer DNEL, long-term		inhalation	local	1 mg/m³
7681-52-9	Sodium Hypochlorite			
Worker DNEL	, long-term	inhalation	systemic	1,55 mg/m³
Worker DNEL	, acute	inhalation	systemic	3,1 mg/m³
Worker DNEL	, acute	inhalation	local	3,1 mg/m³
Worker DNEL, long-term		inhalation	local	1,55 mg/m³
Consumer DNEL, long-term		oral	systemic	0,26 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,55 mg/m³
Consumer DN	IEL, long-term	inhalation	local	1,55 mg/m³

PNEC values

CAS No	Substance			
Environment	al compartment	Value		
10213-79-3	disodium metasilicate-pentahydrate	•		
Freshwater	•	7,5 mg/l		
Freshwater (intermittent releases) 7,5 mg/l				
Marine water 1 mg/l				
7681-52-9	Sodium Hypochlorite			
Freshwater		0,00021 mg/l		
Marine water		0,000042 mg/l		
Secondary poisoning 11,1 mg/l		11,1 mg/kg		
Micro-organisms in sewage treatment plants (STP) 0,03 mg/l				

8.2. Exposure controls



according to Regulation (EC) No 1907/2006

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Appropriate engineering controls

Provide adequate ventilation.

Protective and hygiene measures

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Remove contaminated clothing immediatley and dispose off safely.

Eve/face protection

Suitable eye protection: Tightly sealed safety glasses., Eye-shade. DIN EN 166

Hand protection

Wear suitable gloves.

Suitable material:

Breakthrough time >= 480 min.

penetration time (maximum wearing period): ~ 180 min.

Suitable material:

NBR (Nitrile rubber). (0,35 mm)

Butyl rubber. (0,5 mm)

FKM (fluororubber). (0,4 mm)

CR (polychloroprenes, Chloroprene rubber). (0,5 mm)

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Protective clothing: Protective apron.

Standard: Protective clothing: EN 136, EN 137, EN 140, EN 143, EN 149, EN 405, EN 12941, EN 12942, EN 14387

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

exceeding exposure limit values

generation/formation of aerosols

Generation/formation of mist

Suitable respiratory protective equipment:

Combination filtering device (EN 14387) Type: B-P2/P3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

The product needs to apply neutralizing agents before draining to wastewater treatment plants.

This material and its container must be disposed of in a safe way.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid Colour: yellow

Odour: characteristic (Chlorine.)

pH-Value: >13 (conc.); 11 (0,2% in aqueous

solution)



according to Regulation (EC) No 1907/2006

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Changes in the physical state

Melting point:

Initial boiling point and boiling range:

Sublimation point:

No information available.

Softening point:

No information available.

Pour point:

No information available.

No determined

Sustaining combustion:

No data available

Flammability

Solid: No information available.

Gas: No information available.

Explosive properties

none

Lower explosion limits:

Upper explosion limits:

Ignition temperature:

not determined

not determined

Auto-ignition temperature

Solid: No information available.
Gas: No information available.
Decomposition temperature: not determined

Oxidizing properties

none

Vapour pressure: not determined

(at 20 °C)

Vapour pressure: No information available.

(at 50 °C)

Density (at 20 °C): 1,25 g/cm³
Bulk density: No information available.
Water solubility: miscible.

Solubility in other solvents

not determined

No information available. Partition coefficient: < 30 mPa·s Viscosity / dynamic: Viscosity / kinematic: not determined Flow time: not determined Vapour density: not determined Evaporation rate: not determined Solvent separation test: not determined Solvent content: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.



according to Regulation (EC) No 1907/2006

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10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

May cause decomposition by long-term light influence.

Decompostion takes place from temperatures above: 40°C

Decomposition under formation of: Chlorine (Cl2). Oxygen. (Danger of bursting container.)

10.3. Possibility of hazardous reactions

The product develops hydrogen in an aqueous solution in contact with metals. (Explosion hazard) Contact with acids liberates toxic gas. (Chlorine.)

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

10.5. Incompatible materials

Materials to avoid: Strong acid. Base metals and alloys. Aluminium. Zinc. Lead. Oxidizing agents. Reducing agents. Amines. Ammonia.

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO2). Phosphorus oxides. Chlorine (Cl2) Hydrogen chloride (HCl)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

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

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
1310-58-3	caustic potash, potassium hydroxide					
	oral	LD50 mg/kg	333	Rat	ECHA	
10213-79-3	disodium metasilicate-pentahydrate					
	oral	LD50 mg/kg	[770-820]	Rat.	ECHA Dossier	
7681-52-9	Sodium Hypochlorite					
	oral	LD50 mg/kg	[1100]	Rat	ECHA Dossier	
	dermal	LD50 mg/kg	20000	Rat	ECHA Dossier	
	inhalation (1 h) vapour		[10,5]	Rat	ECHA Dossier	

Irritation and corrosivity

Causes severe skin burns and eye damage.

Evaluation/Classification: Sodium hypochlorite, solution 1 - 2,5 %: H315, H319; Literature information: ECHA

Dossier

Sensitising effects

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

Sodium hypochlorite, solution: no danger of sensitization.; Literature information: ECHA Dossier

Carcinogenic/mutagenic/toxic effects for reproduction

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

Sodium hypochlorite, solution: No experimental indications of mutagenicity in-vivo exist.; Literature



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information: ECHA dossier disodium metasilicate:

In-vivo mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative.;

Literature information: ECHA Dossier

Developmental toxicity/teratogenicity: Species: Mouse. Result: NOAEL > 200 mg/kg; Literature information:

ECHA Dossier

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.

Sodium hypochlorite, solution:

Subchronic oral toxicity (90d) NOAEL = 34,4 mg/kg (Mouse.); Literature information: ECHA dossier

disodium metasilicate:

In-vivo mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative.;

Literature information: ECHA Dossier

Developmental toxicity/teratogenicity: Species: Mouse.; Result: NOAEL > 200 mg/kg. Literature information:

ECHA Dossier
Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

Evaluation/Classification: Sodium hypochlorite, solution 1 - 2,5 %: H412; Literature information: ECHA Dossier

CAS No	No Chemical name									
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method			
10213-79-3	disodium metasilicate-per	ntahydrate								
	Acute fish toxicity	LC50 mg/l	2320	96 h	Gambusia affinis	ECHA Dossier				
1310-73-2	Sodium hydroxide; causti	Sodium hydroxide; caustic soda								
	Acute fish toxicity	LC50 mg/l	45,4		Onchorhynchus mykiss	IUCLID				
	Acute crustacea toxicity	EC50 mg/l	40,4	48 h	Ceriodaphnia sp.	ECHA Dosser				
7681-52-9	Sodium Hypochlorite									
	Acute fish toxicity	LC50 (TRO) mg/l	0,032	96 h	Fish ,various	ECHA Dossier				
	Acute algae toxicity	ErC50	0,4 mg/l		Myriophyllum spicatum	ECHA Dossier				
	Acute crustacea toxicity	EC50 mg/l	0,035	48 h	Ceriodaphnia dubia	ECHA Dossier				

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

The statement is derived form the properties of the components.

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.



according to Regulation (EC) No 1907/2006

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12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Control report for waste code/ waste marking according to EAKV:

Waste disposal number of waste from residues/unused products

200129 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND

INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents containing hazardous substances; hazardous waste

Waste disposal number of used product

200129 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND

INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents containing hazardous substances; hazardous waste

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by

hazardous substances; hazardous waste

Contaminated packaging

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

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1719

14.2. UN proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S. (Contains: potassium hydroxide,

Sodium hydroxide; caustic soda)

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8



Classification code: C5
Special Provisions: 274
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 1719

14.2. UN proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S. (Contains: potassium hydroxide,

Sodium hydroxide; caustic soda)

14.3. Transport hazard class(es): 8



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14.4. Packing group:

Hazard label: 8

8

Classification code: C5
Special Provisions: 274
Limited quantity: 1 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1719

14.2. UN proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S. (Contains: potassium hydroxide,

Sodium hydroxide)

14.3. Transport hazard class(es):814.4. Packing group:II

Hazard label: 8



Marine pollutant:

Special Provisions:

Limited quantity:

Excepted quantity:

Excepted quantity:

Excepted quantity:

Excepted quantity:

F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1719

14.2. UN proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S. (Contains: potassium hydroxide,

Sodium hydroxide)

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8



Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Excepted quantity:

A3 A803

0.5 L

Y840

Excepted quantity:

E2

IATA-packing instructions - Passenger:851IATA-max. quantity - Passenger:1 LIATA-packing instructions - Cargo:855IATA-max. quantity - Cargo:30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Safe handling: see section 7

Personal protection equipment: see section 8



according to Regulation (EC) No 1907/2006

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

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): No information available. 2004/42/EC (VOC): No information available.

Information according to 2012/18/EU Not subject to 2012/18/EU (SEVESO III)

(SEVESO III):

Additional information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII, No (mixture): 3

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile

work protection guideline' (94/33/EC).

Water contaminating class (D): 2 - clearly water contaminating

15.2. Chemical safety assessment

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

caustic potash, potassium hydroxide disodium metasilicate-pentahydrate Sodium hydroxide; caustic soda

Sodium Hypochlorite

SECTION 16: Other information

Changes

Rev. 1,00: 29.02.2012 Rev. 1,01: 02.05.2012 Rev. 1,02: 08.05.2012 Rev. 1,03: 14.08.2012 Rev. 1,10: 19.11.2013 Rev. 1,11: 10.02.2014

Rev. 1,20: 16.06.2016; Changes in chapter: 1-16 Rev. 2,00: 18.07.2017; Changes in chapter: 1-16 Rev. 2,10: 24.01.2018; Changes in chapter: 2,15, 16 Rev. 3,00: 04.19.2018; Changes in chapter: 2,3,7, 15, 14, 16

Abbreviations and acronyms

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

CAS Chemical Abstracts Service DNEL: Derived No Effect Level

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

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)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration





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LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level NOAEC: No observed adverse effect level NTP: National Toxicology Program

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PNEC: predicted no effect concentration PBT: Persistent bioaccumulative toxic

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

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

SARA: Superfund Amendments and Reauthorization Act

SVHC: substance of very high concern TRGS Technische Regeln fuerGefahrstoffe TSCA: Toxic Substances Control Act VOC: Volatile Organic Compounds

VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe

WGK: Wassergefaehrdungsklasse

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

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data and / or calculated and / or estimated.
Skin Corr. 1; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (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.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

Further Information

Classification according EC regulation 1272/2008 (CLP): - Classification procedure:

Health hazards: Calculation method.
Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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