

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**HYLINE HLU-31**

Revision date: 06.03.2020

Product code:

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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**

Professional: Cleaner

**Uses advised against**

Any non-intended use.

**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	Telefax:	+49 (0) 781.600-23 19
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)2534 6441185
	Otto-Hahn-Str. 36		www.tge-consult.de
	D-48161 Muenster		

**1.4. Emergency telephone number:**

Giftnotruf (Poison Center) Berlin: +49 (0) 30 30686700

**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 Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes serious eye damage.

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

potassium hydroxide; caustic potash

Sodium Hypochlorite

**Signal word:** Danger**Pictograms:**



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## Hazard statements

- H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H410 Very toxic to aquatic life with long lasting effects.

## Precautionary statements

- P260 Do not breathe vapour/aerosol.  
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/doctor.

## 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 components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
1310-58-3	potassium hydroxide; caustic potash			5 - 15 %
	215-181-3	019-002-00-8	01-2119487136-33	
	Met. Corr. 1, Acute Tox. 4, Skin Corr. 1A; H290 H302 H314			
1312-76-1	Silicic acid, potassium salt MR >3,2			1 - 5 %
	215-199-1		01-2119456888-17	
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid			3 - < 5 %
	253-733-5		01-2119436643-39	
	Met. Corr. 1, Eye Irrit. 2; H290 H319			
7681-52-9	Sodium Hypochlorite			1 - 5 %
	231-668-3	017-011-00-1	01-2119488154-34	
	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H290 H314 H318 H335 H400 H410 EUH031			
				%

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

## 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)

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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, seek medical treatment.

**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**

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

**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 (CO<sub>2</sub>). 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 (CO<sub>2</sub>). Phosphorus oxides. Chlorine (Cl<sub>2</sub>). 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****6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment (refer to section 8).  
Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothes.  
High slip hazard because of leaking or spilled product.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Eliminate leaks immediately. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into soil/subsoil. If required, notify relevant authorities according to all applicable regulations.

**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.



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Clean contaminated objects and areas thoroughly observing environmental regulations.

#### 6.4. Reference to other sections

No information available.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### **Advice on safe handling**

Wear suitable protective clothing. ( See section 8. )

Do not mix with acids.

##### **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.

##### **Hints on joint storage**

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: frost. UV-radiation/sunlight. heat. Humidity frost.

storage temperature: (-)10 - 20°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/m <sup>3</sup>	fibres/ml	Category	Origin
7782-50-5	Chlorine	0.5	1.5		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; caustic potash			
Worker DNEL, long-term		inhalation	local	1 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	1 mg/m <sup>3</sup>
1312-76-1	Silicic acid, potassium salt MR >3,2			
Worker DNEL, long-term		inhalation	systemic	5,61 mg/m <sup>3</sup>

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Worker DNEL, long-term	dermal	systemic	1,49 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	1,38 mg/m³
Consumer DNEL, long-term	dermal	systemic	0,74 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,74 mg/kg bw/day
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid		
Worker DNEL, long-term	inhalation	systemic	15 mg/m³
Worker DNEL, long-term	dermal	systemic	4,2 mg/kg bw/day
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 DNEL, long-term	inhalation	local	1,55 mg/m³

### PNEC values

CAS No	Substance	Value
Environmental compartment		
1312-76-1	Silicic acid, potassium salt MR >3,2	
Freshwater		7,5 mg/l
Freshwater (intermittent releases)		7,5 mg/l
Marine water		1 mg/l
Micro-organisms in sewage treatment plants (STP)		348 mg/l
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid	
Soil		0,491 mg/kg
Freshwater sediment		1,47 mg/kg
Freshwater (intermittent releases)		10,42 mg/l
Marine water		0,33 mg/l
Freshwater		3,33 mg/l
7681-52-9	Sodium Hypochlorite	
Freshwater		0,00021 mg/l
Freshwater (intermittent releases)		0,00026
Marine water		0,000042 mg/l
Secondary poisoning		11,1 mg/kg
Micro-organisms in sewage treatment plants (STP)		4,69 mg/l

### 8.2. Exposure controls



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**Appropriate engineering controls**

Provide adequate ventilation.

**Protective and hygiene measures**

When using do not eat, drink or smoke.

**Eye/face protection**

Wear eye/face protection. BS/EN 166

**Hand protection**

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time  $\geq$  8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time  $\geq$  8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 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

-Insufficient ventilation and aerosol or mist formation.

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.); 12 (1 %in aqueous solution)

**Changes in the physical state**

Melting point:	not determined
Boiling point or initial boiling point and boiling range:	not determined

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Sublimation point:	No information available.
Softening point:	No information available.
Pour point:	No information available.
Flash point:	not determined
Sustaining combustion:	No data available

**Flammability**

Solid:	No information available.
Gas:	No information available.

**Explosive properties**

none

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	not determined

**Self-ignition temperature**

Solid:	No information available.
Gas:	No information available.

Decomposition temperature:	No information available.
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**Oxidizing properties**

none

Vapour pressure: (at 20 °C)	No information available.
Vapour pressure: (at 50 °C)	No information available.
Density (at 20 °C):	1,35 g/cm <sup>3</sup>
Bulk density:	No information available.
Water solubility:	miscible.

**Solubility in other solvents**

miscible.

Partition coefficient n-octanol/water:	No information available.
Viscosity / dynamic:	< 30 mPa·s
Viscosity / kinematic:	No information available.
Flow time:	No information available.
Relative vapour density:	No information available.
Evaporation rate:	No information available.
Solvent separation test:	No information available.
Solvent content:	No information available.

**9.2. Other information**

Solid content:	No information available.
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**SECTION 10: Stability and reactivity****10.1. Reactivity**

No information available.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.  
May cause decomposition by long-term light influence.  
Decomposition takes place from temperatures above: 40°C

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Decomposition under formation of: Chlorine (Cl<sub>2</sub>). 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

heat. frost. UV-radiation/sunlight.

### 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 (CO<sub>2</sub>). Phosphorus oxides. Chlorine (Cl<sub>2</sub>).  
Hydrogen chloride (HCl).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicokinetics, 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	potassium hydroxide; caustic potash				
	oral	LD50 333 mg/kg	Rat	ECHA	
1312-76-1	Silicic acid, potassium salt MR >3,2				
	oral	LD50 > 5000 mg/kg	Rat	ECHA dossier	EPA OPPTS 870.1100
	dermal	LD50 > 5000 mg/kg	Rat	ECHA dossier	EPA OPPTS 870.1200
	inhalation (4 h) vapour	LC50 > 2,06 mg/l	Rat	ECHA dossier	EPA OPPTS 870.1300
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid				
	oral	LD50 > 6500 mg/kg	Rat.	Echa dossier	
	dermal	LD50 >4000 mg/kg	Rat.	Echa dossier	
	inhalation (4 h) aerosol	LC50 > 1,98 mg/l	Rat.	Echa dossier	
7681-52-9	Sodium Hypochlorite				
	oral	LD50 1100 mg/kg	Rat	ECHA Dossier	OECD Guideline 401
	dermal	LD50 20000 mg/kg	Rat	ECHA Dossier	OECD Guideline 402
	inhalation (1 h) vapour	LC50 >10,5 mg/l	Rat	ECHA Dossier	OECD Guideline 403

### Irritation and corrosivity



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Causes severe skin burns and eye damage.

Causes serious eye damage.

Irritant effect on the eye: highly caustic.

Irritant effect on the skin: highly caustic.

Irritant effect on the respiratory tract: Irritant.

### Sensitising effects

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

Potassium Silicate: no danger of sensitization.

Sodium Hypochlorite : 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 :

No experimental indications of mutagenicity in-vivo exist.

Literature information: ECHA dossier

2-phosphonobutane-1,2,4-tricarboxylic acid:

In vitro mutagenicity/genotoxicity: Method: OECD 471 (Ames test). Result: negative.; Developmental toxicity/teratogenicity: Method: OECD 414. Species: Rat. Exposure duration: 20d. Result: NOEL 1000 mg/kg bw/day. 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 :

Subchronic oral toxicity (90d) NOAEL = 34,4 mg/kg (Mouse.)

Literature information: ECHA dossier

2-phosphonobutane-1,2,4-tricarboxylic acid:

Subchronic oral toxicity : Method: OECD 408. Species: Rat. Exposure duration: 90d. Test results: NOAEL >= 424 Mg/kg bw male Rat. >= 632Mg/kg bw female ,Rat. Literature information: ECHA Dossier.

2-phosphonobutane-1,2,4-tricarboxylic acid:

Subchronic oral toxicity:

Result: NOAEL = 424 mg/kg

Exposure time: 90 d

Species: Rat.

### Aspiration hazard

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

## SECTION 12: Ecological information

### 12.1. Toxicity

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1312-76-1	Silicic acid, potassium salt MR >3,2					
	Acute fish toxicity	LC50 > 146 mg/l	96 h	Leuciscus idus	ECHA dossier	
	Acute algae toxicity	ErC50 207 mg/l	72 h	Desmodesmus subspicatus	ECHA dossier	other guideline: DIN 38412
	Acute crustacea toxicity	EC50 > 146 mg/l	48 h	daphnia magna	ECHA dossier	
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid					
	Acute fish toxicity	LC50 > 1042 mg/l	96 h	Danio rerio	Echa dossier	

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	Acute algae toxicity	ErC50 mg/l	>140	72 h	Desmodesmus subspicatus)	Echa dossier	
	Acute crustacea toxicity	EC50 mg/l	> 1071	48 h	Daphnia magna	Echa dossier	
	Fish toxicity	NOEC mg/l	>1042	14 d	Danio rerio	Echa dossier	
	Crustacea toxicity	NOEC	104 mg/l	21 d	Daphnia magna	Echa dossier	
7681-52-9	Sodium Hypochlorite						
	Acute fish toxicity	LC50 (TRO) mg/l	0,032	96 h	Fish ,various	ECHA Dossier	
	Acute algae toxicity	ErC50 mg/l	0,036	72 h	Pseudokirchneriella subcapitata	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,035	48 h	Ceriodaphnia dubia	ECHA Dossier	OECD Guideline 202
	Fish toxicity	NOEC mg/l	0,04	28 d	Menidia peninsulæ	ECHA Dossier	
	Crustacea toxicity	NOEC mg/l	0,015	21 d	V. iris (Ambloplites rupestris)	ECHA Dossier	READ ACROSS
	Acute bacteria toxicity	(563 mg/l)		3 h	Activated sludge	ECHA Dossier	OECD Guideline 209

### 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid			
	OECD 302A / ISO 9887 / EEC 88/302 annex V, C.12	30-40%	90	Echa dossier
	Not easily bio-degradable (according to OECD-criteria).			

### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

The statement is derived from the properties of the components.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid	-1,36

### 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. 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 (EWC) European Waste Catalogue:

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**List of Wastes Code - 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

**List of Wastes Code - 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

**List of Wastes Code - 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 hypochlorite, solution ... % Cl active )

**14.3. Transport hazard class(es):**

8

**14.4. Packing group:**

II

Hazard 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 hypochlorite, solution ... % Cl active )

**14.3. Transport hazard class(es):**

8

**14.4. Packing group:**

II

Hazard label:

8



Classification code:

C5

Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

**Marine transport (IMDG)**

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**14.1. UN number:** UN 1719  
**14.2. UN proper shipping name:** CAUSTIC ALKALI LIQUID, N.O.S. (contains: Potassiumhydroxide, Sodium Hypochlorite solution)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8  
  
Marine pollutant: YES  
Special Provisions: 274  
Limited quantity: 1 L  
Excepted quantity: E2  
EmS: 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: Potassiumhydroxide, Sodium Hypochlorite 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: Yes



Danger releasing substance: Sodium Hypochlorite

### 14.6. Special precautions for user

Refer to section 6-8

### 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

Restrictions on use (REACH, annex XVII):

Entry 3

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

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2010/75/EU (VOC): No information available.  
2004/42/EC (VOC): No information available.  
Information according to 2012/18/EU (SEVESO III): E1 Hazardous to the Aquatic Environment

**Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)  
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 juveniles according to the 'juvenile work protection guideline' (94/33/EC).  
Water hazard class (D): 2 - obviously 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; caustic potash  
Silicic acid, potassium salt MR >3,2  
2-phosphonobutane-1,2,4-tricarboxylic acid  
Sodium Hypochlorite

**SECTION 16: Other information****Changes**

Rev. 1,0: 29.02.2012  
Rev. 1,01: 02.05.2012  
Rev. 1,02: 08.05.2102  
Rev. 1,03: 14.08.2012  
Rev. 1,10: 16.06.2016 ; Changes in chapter: 1-16  
Rev. 2,00: 04.10.2018; ; Changes in chapter: 1-16  
Rev. 2,10: 06.03.2020; ; Changes in chapter: 14.5

**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)  
CAS Chemical Abstracts Service  
CLP: Classification, Labelling and Packaging of substances and mixtures  
DNEL: Derived No Effect Level  
d: day(s)  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
ECHA: European Chemicals Agency  
EWC: European Waste Catalogue  
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)  
h: hour  
LOAEL: Lowest observed adverse effect level  
LOAEC: Lowest observed adverse effect concentration  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

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NOAEL: No observed adverse effect level  
 NOAEC: No observed adverse effect concentration  
 NLP: No-Longer Polymers  
 N/A: not applicable  
 OECD: Organisation for Economic Co-operation and Development  
 PNEC: predicted no effect concentration  
 PBT: Persistent bioaccumulative toxic  
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )  
 REACH: Registration, Evaluation, Authorisation of Chemicals  
 SVHC: substance of very high concern  
 TRGS: Technische Regeln für Gefahrstoffe  
 UN: United Nations  
 VOC: Volatile Organic Compounds

### 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 Acute 1; H400	Calculation method
Aquatic Chronic 2; H411	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.  
 H315 Causes skin irritation.  
 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.  
 H411 Toxic to aquatic life with long lasting effects.  
 EUH031 Contact with acids liberates toxic gas.

### Further Information

Classification according to Regulation (EC) No 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.)*