Safety Data Sheet

according to Regulation (EC) No 1907/2006

HYLINE HLU-31

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

Product identifier

HYLINE HLU-31

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

Use of the substance/mixture

Cleaning agent, alkaline.

Uses advised against

none/none

Details of the supplier of the safety data sheet

Company name:	HOBART UK
Street:	Southgate Way
Place:	Peterborough
Telephone:	0844 888 7777
e-mail:	part.sales@hobartuk.com
Internet;	www.hobartuk.com
Responsible Department:	Spare part sales e-mail julian.fisher@hobartuk.com Telephone; 01733 392287

Emergency telephone: 0845 4647

SECTION 2: Hazards identification

Classification of the substance or mixture

Indications of danger : Corrosive
R-phrases:
Causes severe burns.

Label elements

Danger symbols: C - Corrosive

C - Corrosive

Hazardous components which must be listed on the label

sodium hypochlorite, solution 1 - 5 % Cl active
caustic potash, potassium hydroxide

R phrases

35	Causes severe burns.

S phrases

26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
231-668-3	sodium hypochlorite, solution 1 - 5 % Cl active	15 - 30 %
7681-52-9	C, N R34-31-50	
017-011-00-1	Skin Corr. 1B, Aquatic Acute 1; H314 H400	
215-181-3	caustic potash, potassium hydroxide	5 -15 %
1310-58-3	Xn, C R22-35	
	Acute Tox. 4, Skin Corr. 1A; H302 H314	
237-574-9	Potassium triphosphate	5 - 15 %
13845-36-8	Xi R36/38	
	Eye Irrit. 2, Skin Irrit. 2; H319 H315	
253-733-5	2-phosphonobutane-1,2,4-tricarboxylic acid	1 - 5 %
37971-36-1	Xi R36/38	
	Eye Irrit. 2, Skin Irrit. 2; H319 H315	
215-199-1	Potassium Silicate	1 - 5 %
1312-76-1	Xi R36/38	
	Skin Irrit. 2, Eye Irrit. 2; H315 H319	

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

Further Information

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

Labelling for contents according to regulation (EC) No 648/2004, annex 7:
15 - 30 % phosphates
15 - 30 % chlorine-based bleaching agents
< 5 % phosphonates

SECTION 4: First aid measures

Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After inhalation

Provide fresh air. Get immediate medical advice/attention.

After contact with skin

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water. 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. Risk of serious damage to eyes.

After ingestion

Rinse mouth thoroughly with water. Do not induce vomiting. Let water be swallowed in little sips (dilution effect). Caution if victim vomits: Risk of aspiration! Immediately get medical attention.

Most important symptoms and effects, both acute and delayed

Danger of severe chemical burns that lead to perforation of oesophagus and stomach.

Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

dry extinguishing powder. Carbon dioxide (CO_2). Water spray.

Extinguishing media which must not be used for safety reasons

High power water jet.

Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO_2). Phosphorus oxides. Chlorine (Cl_2). Hydrogen chloride (HCl).

Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Wear a self-contained breathing apparatus and chemical resistant suit.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Extinguishing materials should be selected according to the surrounding area.
Use water spray/stream to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. (Refer to chapter 8.)
High slip hazard because of leaking or spilled product.

Environmental precautions

Do not empty into drains or the aquatic environment.

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 assimilated material according to the section on waste disposal.
Clear contaminated area thoroughly.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Wear suitable protective clothing. (Refer to chapter 8.)
Do not mix with acids. Do not breathe vapour or spray. Avoid contact with skin, eye and clothing.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

Shelf Life (months): 12

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 material for floor covering: Leachate-proof.

Advice on storage compatibility

Do not store together with: Peroxides. Radioactive substances. Infectious substances. Oxidizing solids.

Oxidizing liquids. Food and fodder.

Further information on storage conditions

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

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure limits (EH40)

CAS No	Chemical name	ml/m³	mg/m³	F/ml	Category	Origin
1310-58-3	Potassium hydroxide	-	-		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

Exposure controls



Occupational exposure controls

Provide adequate ventilation.

Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Remove contaminated clothing immediatley and dispose off safely.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection required in case of:
exceeding critical value
Generation/formation of aerosols
Generation/formation of mist
Suitable respiratory protective equipment:
Combination filter device (DIN EN 141).. Type : B- P2/P3

Hand protection

Pull-over gloves of rubber. DIN EN 374
Suitable material:
(penetration time (maximum wearing period): >= 8 h):
Butyl rubber. (0,5 mm)
FKM (fluororubber). (0,4 mm)
CR (polychloroprenes, Chloroprene rubber). (0,5 mm)
Before using check leak tightness / impermeability. In case of reutilization, clean gloves before taking off and store in well-aired place.

Eye protection

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

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

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

Information on basic physical and chemical properties

Physical state:	liquid
Colour:	yellow
Odour:	characteristic (Chlorine.)

		Test method
pH-Value:	>13 (conc.); 12 (1 %in aqueous solution)	

Changes in the physical state

Boiling point:	not determined
Flash point:	not determined

Explosive properties

none/none

Oxidizing properties

none/none

Density:	1,35 g/cm³

Solubility in other solvents

miscible.

Viscosity / dynamic:	< 30 mPa·s

SECTION 10: Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under normal storage and handling conditions.
Decomposition possible after prolonged exposure to light.
Decompostion takes place from temperatures above: 40°C
Decomposition under formation of: Chlorine (Cl2). Oxygen. (Danger of bursting container.)

Possibility of hazardous reactions

In a watery solution and in contact with metals, product develops hydrogen . (Explosion hazard.)
Contact with acids liberates toxic gas. (Chlorine.)

Conditions to avoid

heat. frost. UV-radiation/sunlight.

Incompatible materials

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

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

Information on toxicological effects

Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
7681-52-9	sodium hypochlorite, solution 1 - 5 % Cl active				
	oral	LD50 mg/kg	(1100)	Rat.	ECHA dossier
	dermal	LD50 mg/kg	20000	Rat.	ECHA dossier
1310-58-3	caustic potash, potassium hydroxide				
	oral	LD50	(273) mg/kg	Rat.	
13845-36-8	Potassium triphosphate				
	oral	LD50 mg/kg	> 2000	Rat.	
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid				
	oral	LD50 mg/kg	> 6500	Rat.	Echa dossier
	dermal	LD50 mg/kg	>4000	Rat.	Echa dossier
1312-76-1	Potassium Silicate				
	oral	LD50 mg/kg	> 5000	Rat.	ECHA dossier
	dermal	LD50 mg/kg	> 5000		

Irritation and corrosivity

Irritant effect on the eye: highly caustic.
Irritant effect on the skin: highly caustic.
Irritant effect on the respiratory tract: irritant.

Sensitising effects

Potassium Silicate: no danger of sensitization.
sodium hypochlorite, solution ... % Cl active: no danger of sensitization.
literature infomation: ECHA dossier

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

sodium hypochlorite, solution ... % Cl active:
No experimental indications of mutagenicity in-vivo exist.
literature infomation: ECHA dossier

SECTION 12: Ecological information

Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	h	Species	Source
7681-52-9	sodium hypochlorite, solution 1 - 5 % Cl active					
	Acute fish toxicity	LC50 mg/l	(0,032 - 10)	96		Gestis
	Acute algae toxicity	ErC50	46 mg/l	72		Gestis
	Acute crustacea toxicity	EC50 mg/l	(0,032 - 56,4)	48		Gestis
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid					
	Acute fish toxicity	LC50	> 1042 mg/l	96	Danio rerio	Echa dossier
	Acute algae toxicity	ErC50	>140 mg/l	72	Desmodesmus subspicatus)	Echa dossier
	Acute crustacea toxicity	EC50	> 1071 mg/l	48	daphnia magna	Echa dossier
1312-76-1	Potassium Silicate					
	Acute fish toxicity	LC50	> 146 mg/l	96	Leuciscus idus	ECHA dossier
	Acute crustacea toxicity	EC50	> 146 mg/l	48	daphnia magna	ECHA dossier

Persistence and degradability

No information available.

Bioaccumulative potential

No indication of bio-accumulation potential.
The statement is derived form 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

Mobility in soil

No information available.

Results of PBT and vPvB assessment

No information available.

SECTION 13: Disposal considerations

Waste treatment methods

Advice on disposal

The product needs to apply neutralizing agents before draining to wastewater treatment plants. Waste disposal according to official state regulations. Consult the local waste disposal expert about waste disposal.

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 dangerous substances
Classified as 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 dangerous substances
Classified as 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 dangerous substances Classified as hazardous waste.

Contaminated packaging

Cleaned containers may be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

UN number:	UN1719
UN proper shipping name:	CAUSTIC ALKALI LIQUID, N.O.S. (Contains: potassiumhydroxide, Sodium Hypochlorite)
Transport hazard class(es):	8
Packing group:	II
Hazard label:	8

Classification code:	C5
Special Provisions:	274
Limited quantity:	1 L
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

Other applicable information (land transport)

Excepted quantity: E2

Inland waterways transport

UN number:	UN1719
UN proper shipping name:	CAUSTIC ALKALI LIQUID, N.O.S. (Contains: potassiumhydroxide, Sodium Hypochlorite)
Transport hazard class(es):	8
Packing group:	II
Hazard label:	8

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

Other applicable information (inland waterways transport)

Excepted quantity: E2

Marine transport

UN number:	UN1719
UN proper shipping name:	CAUSTIC ALKALI LIQUID, N.O.S. (contains: Potassiumhydroxide, Sodium Hypochlorite)
Transport hazard class(es):	8
Packing group:	II

Hazard label: 8

Special Provisions: 274
Limited quantity: 1 L
EmS: F-A, S-B

Other applicable information (marine transport)

Excepted quantity: E2

Air transport

UN/ID number: UN1719

UN proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S. (contains: Potassiumhydroxide, Sodium Hypochlorite)

Transport hazard class(es): 8

Packing group: II

Hazard label: 8

Special Provisions: A3 A803
Limited quantity Passenger: 0.5 L

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

Other applicable information (air transport)

Excepted quantity: E2
Passenger-LQ: Y840

SECTION 15: Regulatory information

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

National regulatory information

Employment restrictions: Observe employment restrictions for young people.
Water contaminating class (D): 2 - water contaminating

SECTION 16: Other information

Changes

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)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level

Full text of R-phrases referred to under sections 2 and 3

22	Harmful if swallowed.
31	Contact with acids liberates toxic gas.
34	Causes burns.
35	Causes severe burns.
36/38	Irritating to eyes and skin.
50	Very toxic to aquatic organisms.

Full text of H-Statements referred to under sections 2 and 3

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.

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