

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Date first issue: 01/08/2008 Review date: 05/09/2024 Supersedes version of: 17/03/2023 Version: 6.4

SECTION 1: Identification of the sub	ostance/mixture and of the company/undertaking
Product form	: Mixture
Product name	: CLARIFI
Product code	: 369
Type of product	: Detergent
Product group	: Mixture
1.2. Relevant identified uses of the subs	stance or mixture and uses advised against
1.2.1. Relevant identified uses	
Main use category	: Industrial use, Professional use
Industrial/Professional use spec	: Industrial For professional use only
Use of the substance/mixture	: Cleaning/washing agents and additives
 1.2.2. Uses advised against No additional information available 1.3. Details of the supplier of the safety 	data sheet
Manufacturer	Supplier
Christeyns Professional Hygiene UK Ltd Clover House Macclesfield Road SK23 7DQ Whaley Bridge, Derbyshire United Kingdom T 01663 733114, F 01663 733115 info.cph.uk@christeyns.com, www.christeyns-ph	Christeyns NV Afrikalaan 182 9000 GENT Belgium T +32 (0)9/ 223 38 71, F +32 (0)9/ 233 03 44 <u>info@christeyns.be</u> , <u>www.christeyns.com</u>

1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008	[CLP]
Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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



CLP Signal word Contains : Danger : Sodium hydroxide; Sodium hypochlorite

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Hazard statements (CLP)	: H314 - Causes severe skin burns and eye damage. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	 P102 - Keep out of reach of children. P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves, eye protection. P273 - Avoid release to the environment. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P332+P313 - If skin irritation occurs: Get medical advice/attention. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention. P363 - Wash contaminated clothing before reuse. P391 - Collect spillage.
EUH-statements	: EUH206 - Warning! Do not use together with other products. May release dangerous gases (chlorine).

2.3. Other hazards

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2.	Mixtures	

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sodium hydroxide substance with national workplace exposure limit(s) (BE, BG, CZ, DK, EE, ES, FI, GB, GR, HR, HU, IE, LT, LV, PL, PT, RO, SE, SK, IS, NO, CH)	CAS-no: 1310-73-2 Einecs nr: 215-185-5 EG annex nr: 011-002-00-6 REACH-no: 01-2119457892- 27	3 – 5	Met. Corr. 1, H290 Skin Corr. 1A, H314
Sodium hypochlorite	CAS-no: 7681-52-9 Einecs nr: 231-668-3 EG annex nr: 017-011-00-1 REACH-no: 01-2119488154- 34	3-5	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1) EUH031

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Sodium hydroxide	CAS-no: 1310-73-2 Einecs nr: 215-185-5 EG annex nr: 011-002-00-6 REACH-no: 01-2119457892- 27	$(0.5 \le C < 2)$ Eye Irrit. 2, H319 $(0.5 \le C < 2)$ Skin Irrit. 2, H315 $(2 \le C < 5)$ Skin Corr. 1B, H314 $(5 \le C \le 100)$ Skin Corr. 1A, H314
Sodium hypochlorite	CAS-no: 7681-52-9 Einecs nr: 231-668-3 EG annex nr: 017-011-00-1 REACH-no: 01-2119488154- 34	(5 ≤ C ≤ 100) EUH031

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

SECTION 4: First aid measures

4.1. Description of first aid measures	
General advice	

Inhalation

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

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Skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
Eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
4.2. Most important symptoms and effects, b Symptoms/effects	oth acute and delayed : Causes severe skin burns and eye damage.
Symptoms/enects	. Causes severe skin burns and eye damage.
Acute effects skin	: Causes severe burns.
Acute effects eyes	: Causes serious eye damage.
Acute effects oral route	: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Abdominal pain, nausea.

4.3. Indication of any immediate medical attention and special treatment needed No additional information available

SECTION 5: Firefighting measures	
5.1. Extinguishing media Suitable extinguishing media	: Water.
5.2. Special hazards arising from the substa	
Hazardous decomposition products in case of fire	: Corrosive vapours. Toxic fumes may be released.
5.3. Advice for firefighters	
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release measure	
6.1. Personal precautions, protective equipm	
6.1.1. For non-emergency personnel	
Emergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.
6.2. Environmental precautions Avoid release to the environment.	
6.3. Methods and material for containment a	
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
6.4. Reference to other sections	
See Section 8. Exposure controls and personal prote	ction.
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe dust/fume/gas/mist/vapours/spray.
Hygiene measures	: Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse.
7.2. Conditions for safe storage, including a	ny incompatibilities
Technical measures	: Comply with applicable regulations.
Storage conditions	: Store in a cool, well-ventilated place. Keep container tightly closed.
Incompatible products	: Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight.
Packaging materials	: polyethylene.
7.3. Specific end use(s)	
No additional information available	

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Sodium hydroxide (1310-73-2)	
Ireland - Occupational Exposure Limits	
Local name Sodium hydroxide	
OEL STEL	2 mg/m ³
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values)
egulatory reference Chemical Agents Code of Practice 2024	
United Kingdom - Occupational Exposure Limits	
Local name	Sodium hydroxide
WEL STEL (OEL STEL)	2 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available **8.2. Exposure controls**

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure that there is a suitable ventilation system.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection Eye protection: Chemical goggles or face shield

8.2.2.2. Skin protection

Protective equipment: Wear suitable protective clothing

Hand protection: Wear protective gloves

8.2.2.3. Respiratory protection No additional information available

8.2.2.4. Thermal hazards No additional information available

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8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Light yellow.
Physical state/form	: Liquid.
Odour	: Characteristic.
Odour threshold	: Not available
Melting point/range	: 0 °C
Freezing point	: Not determined as it is not relevant for the characterization of the product
Boiling point/Boiling range	: 100 °C
Flammability	: Non flammable.
Lower explosion limit	: Constituents do not contain chemical groups associated with explosivity
Upper explosion limit	: Constituents do not contain chemical groups associated with explosivity
Flash point	: Not determined as it is not relevant for the characterization of the product
Autoignition temperature	: Determination of the auto-ignition temperature is only relevant for pyrophoric liquids, however the mixture is not a pyrophoric liquid so the test is not required.
Decomposition temperature	: Not available
pH	: 13 – 14
Viscosity, kinematic	: Thin liquid
Viscosity, dynamic	: < 20 cP at 20 °C
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 1.105 g/cm³
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable
9.2. Other information	

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.
10.2. Chemical stability
Stable under normal conditions of use.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.
10.5. Incompatible materials

Strong acids.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

 Acute toxicity (oral)
 : Not classified

Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Sodium hypochlorite (7681-52-9)	
LD50 oral rat	> 2000 mg/kg
LD50 oral	8910 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg
Skin corrosion/irritation	: Causes severe skin burns.
	рН: 13 – 14
Serious eye damage/irritation	: Causes serious eye damage.
	рН: 13 – 14
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
CLARIFI	
Viscosity, kinematic	Thin liquid
11.2. Information on other hazards	
11.2.1. Endocrine disrupting properties No additional information available	
11.2.2. Other information Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
SECTION 12: Ecological information 12.1. Toxicity	

12.1. Toxicity Ecology - water	: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.

Sodium hydroxide (1310-73-2)		
LC50 - Fish [1]	> 35 mg/l	
EC50 - Crustacea [1]	40.4 mg/l (Ceriodaphnia)	
EC50 - Other aquatic organisms [1]	> 33 mg/l waterflea	
Sodium hypochlorite (7681-52-9)		
LC50 - Fish [1]	0.06 mg/l (fresh water)	
LC50 - Fish [2]	0.032 mg/l (marine water)	
EC50 - Crustacea [1]	0.141 mg/l (Daphnia magna - fresh water)	
EC50 - Other aquatic organisms [1]	0.026 mg/l (Crassostrea virginica - marine water)	
12.2. Persistence and degradability		
CLARIFI		
Persistence and degradability	May cause long-term adverse effects in the environment.	

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Sodium hydroxide (1310-73-2)	
Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances.
Sodium hypochlorite (7681-52-9)	
Persistence and degradability	Strong oxidizing agent, It will react with organic substances present in soil and sediments and degrades rapidly to chloride, Sodium hypochlorite is substantially removed in biologica treatment processes.
2.3. Bioaccumulative potential	
CLARIFI	
Bioaccumulative potential	No bioaccumulation.
Sodium hydroxide (1310-73-2)	
Log Pow	-3.88
Bioaccumulative potential	No bioaccumulation.
Sodium hypochlorite (7681-52-9)	
Log Pow	-3.42
Bioaccumulative potential	Bioaccumulation unlikely.
12.4. Mobility in soil No additional information available 12.5. Results of PBT and vPvB assessment	
CLARIFI	
This substance/mixture does not meet the vPvB crit	eria of REACH regulation, annex XIII
12.6. Endocrine disrupting properties No additional information available	
12.7. Other adverse effects Additional information	: Avoid release to the environment.
SECTION 13: Disposal considerations 13.1. Waste treatment methods Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of
	contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Naste / unused products	: Avoid release to the environment.
HP Code	: HP8 - "Corrosive:" waste which on application can cause skin corrosion. HP12 - "Release of an acute toxic gas:" waste which releases acute toxic gases (Acute Tox. 1, 2 or 3) in contact with water or an acid HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for

HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	ΙΑΤΑ
14.1. UN number or ID number	·	·
UN 1719	UN 1719	UN 1719
14.2. UN proper shipping name		
CAUSTIC ALKALI LIQUID, N.O.S. (Sodium hydroxide)	CAUSTIC ALKALI LIQUID, N.O.S. (Sodium hydroxide)	Caustic alkali liquid, n.o.s. (Sodium hydroxide)
Transport document description	·	·
UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. (Sodium hydroxide), 8, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. (Sodium hydroxide), 8, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1719 Caustic alkali liquid, n.o.s. (Sodium hydroxide), 8, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)		
8	8	8

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ADR IMDG IATA		
ADR	IMDG	
		8
14.4. Packing group		·
III	III	III
14.5. Environmental hazards		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available		
14.6. Special precautions for user		
Overland transport		
Classification code (ADR)	: C5	
Special provisions (ADR)	: 274	
Limited quantities (ADR)	: 5l	
Packing instructions (ADR)	: P001, IBC03, R001 : MP19	
Mixed packing provisions (ADR) Portable tank and bulk container instructions		
(ADR)	: T7	
Portable tank and bulk container special provisions (ADR)	: TP1, TP28	
Tank code (ADR)	: L4BN	
Vehicle for tank carriage	: AT	
Transport category (ADR)	: 3	
Special provisions for carriage - Packages (ADR)	: V12	
Hazard identification number (Kemler No.)	: 80	
Orange plates	80 1719	
Tunnel code	: E	
EAC code	: 2R	
Transport by sea		
Special provisions (IMDG)	: 223, 274	
Limited quantities (IMDG)	: 5 L	
Packing instructions (IMDG)	: P001	
IBC packing instructions (IMDG)	: IBC03	
Air transport		
PCA Limited quantities (IATA)	: Y841	
PCA limited quantity max net quantity (IATA)	: 1L	
PCA packing instructions (IATA)	: 852	
PCA max net quantity (IATA)	: 5L	
CAO packing instructions (IATA)	: 856	
CAO max net quantity (IATA)	: 60L	
Special provisions (IATA)	: A3, A803	
14.7. Maritime transport in bulk according to		

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Detergent Regulation (648/2004)

Labelling of contents	
Component	%
chlorine-based bleaching agents	<5%

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H₂ and FUH-statements:

Data sources

 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
 None.

Other information

Full text of H- and EUH-statements:		
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1	
EUH031	Contact with acids liberates toxic gas.	
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
H290	May be corrosive to metals.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	

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Full text of H- and EUH-statements:		
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.	
Met. Corr. 1	Corrosive to metals, Category 1	
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 2	H411	Calculation method

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.