Sodium Hypochlorite Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
SDS Ref.: Periodic review of SDS 6/10/2022
Date of issue: 8/13/2014 Revision date: 6/10/2019 Supersedes: 11/2/2017 Version: 1.6

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

1.1. Product identifier

Product form	: Mixture
Product name	: Sodium Hypochlorite Solution
Type of product	: Aqueous solution
Formula	: NaClO
Synonyms	: Bleach
Product group	: Raw material

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Wessex Chemical Factors Ltd
9 Crane Way, Woolsbridge Industrial Park,
Three Legged Cross, Wimborne, Dorset
BH21 6FA - United Kingdom
T +44 (0) 1202 823 699 - F +44 (0) 1202 813 863
www.wessexchemicalfactors.co.uk
E-mail address of competent person responsible for the SDS : info@wessexchemicalfactors.co.uk

1.4. Emergency telephone number

Emergency number : +44 (0) 1202 823 699 (Office hours only 9am - 5pm Monday - Thursday, 9am - 4pm Friday.)
+44 (0) 7973629367 (Out of hours emergency number)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, Category 1	H290
Skin corrosion/irritation, 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 statements : see section 16

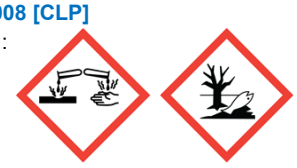
Adverse physicochemical, human health and environmental effects

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

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

Hazard pictograms (CLP) :



GHS05 GHS09

Signal word (CLP) : Danger

Hazardous ingredients : sodium hypochlorite, solution… % Cl active

Hazard statements (CLP) : H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H400 - Very toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)	: P234 - Keep only in original packaging. P260 - Do not breathe mist, vapours, spray. P264 - Wash hands thoroughly after handling. P273 - Avoid release to the environment. P280 - Wear eye protection, protective gloves, protective clothing. 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. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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 doctor, a POISON CENTER. P321 - Specific treatment (see supplemental first aid instruction on this label). P390 - Absorb spillage to prevent material damage. P391 - Collect spillage. P405 - Store locked up. P406 - Store in Corrosion resistant container with a resistant inner liner. P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
EUH-statements	: EUH031 - Contact with acids liberates toxic gas.

2.3. Other hazards
No additional information available

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 hypochlorite, solution… % Cl active (Note B)	(CAS-No.) 7681-52-9 (EC-No.) 231-668-3 (EC Index-No.) 017-011-00-1 (REACH-no) 01-2119488154-34-XXXX	5 - 20	Met. Corr. 1, H290 Skin Corr. 1B, H314 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)
sodium hydroxide; caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6 (REACH-no) 01-2119457892-27-XXXX	< 1	Met. Corr. 1, H290 Skin Corr. 1A, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
sodium hypochlorite, solution… % Cl active	(CAS-No.) 7681-52-9 (EC-No.) 231-668-3 (EC Index-No.) 017-011-00-1 (REACH-no) 01-2119488154-34-XXXX	(5 =<C < 100) EUH031
sodium hydroxide; caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6 (REACH-no) 01-2119457892-27-XXXX	(0.5 =<C < 2) Eye Irrit. 2, H319 (0.5 =<C < 2) Skin Irrit. 2, H315 (2 =<C < 5) Skin Corr. 1B, H314 (5 =<C < 100) Skin Corr. 1A, H314

Note B : Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid … %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Full text of H-statements: see section 16

SECTION 4: First aid measures
4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, trained personnel should give oxygen.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

First-aid measures after eye contact : In case of contact, immediately rinse eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Call a physician immediately.

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

Symptoms/effects : Causes severe skin burns and eye damage.

Symptoms/effects after inhalation : Irritation of the respiratory tract. Cough. Headache. Risk of lung oedema.

Symptoms/effects after skin contact : Highly corrosive to skin. Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns of the upper digestive and respiratory tracts. nausea, vomiting. Possible oesophageal perforation. Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable. In case of fire, irritating fumes come free.

Hazardous decomposition products in case of fire : Decomposes on exposure to temperature rise: release of toxic and corrosive gases/vapours hydrogen chloride. Chlorine.

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. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect spillage. Store away from other materials. Do not neutralize with acid. Flush contaminated areas with plenty of water.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Direct sunlight. Keep container closed when not in use. Store in corrosive resistant container with a resistant inner liner. Store locked up. Keep cool.
Incompatible products	: Strong bases. Strong acids. combustible materials. Ammonia.
Incompatible materials	: Sources of ignition. Direct sunlight. Metals.
Storage temperature	: 15 - 25 °C
Information on mixed storage	: Stow ‘‘away from’’ acids. Stow ‘‘away from’’ ammonium compounds.
Storage area	: Keep away from food, drink and animal feeding stuffs.
Packaging materials	: Do not store in corrodable metal. Store in polyethylene, polyvinylchloride.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection
8.1. Control parameters

sodium hydroxide; caustic soda (1310-73-2)		
Germany	TRGS 910 Acceptable concentration notes	
United Kingdom	Local name	Sodium hydroxide
United Kingdom	WEL STEL (mg/m³)	2 mg/m³
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

Exposure limit values for the other components

chlorine (7782-50-5)			
EU	Local name	Chlorine	
EU	IOELV STEL (mg/m³)	1.5 mg/m³	
EU	IOELV STEL (ppm)	0.5 ppm	
EU	Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC	
United Kingdom	Local name	Chlorine	
United Kingdom	WEL STEL (mg/m³)	1.5 mg/m³	
United Kingdom	WEL STEL (ppm)	0.5 ppm	
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE	

Sodium Hypochlorite Solution	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	3.1 mg/m³
Acute - local effects, inhalation	3.1 mg/m³
Long-term - local effects, dermal	0.5 % in mixture
Long-term - systemic effects, inhalation	1.55 mg/m³
Long-term - local effects, inhalation	1.55 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	3.1 mg/m³
Acute - local effects, inhalation	3.1 mg/m³
Long-term - systemic effects,oral	0.26 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.55 mg/m³
Long-term - local effects, dermal	0.5 % in mixture
Long-term - local effects, inhalation	1.55 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.00021 mg/l
PNEC aqua (marine water)	0.000042 mg/l
PNEC aqua (intermittent, freshwater)	0.00026 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Avoid all unnecessary exposure. Gloves. Protective goggles. Insufficient ventilation: wear respiratory protection.

Materials for protective clothing:

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Hand protection:

Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Polyvinylchloride (PVC)	6 (> 480 minutes)	0.5 mm		EN ISO 374
Reusable gloves	Butyl rubber	6 (> 480 minutes)	0.5 mm		EN ISO 374

Eye protection:

Chemical goggles or face shield. Safety glasses

Type	Use	Characteristics	Standard
Safety glasses	If there is a risk of liquid being splashed : To protect against splashes from pouring	With side shields	EN 166
Safety goggles	If there is a risk of liquid being splashed : To protect against splashes from pouring	tightly fitting safety goggles	EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Device	Filter type	Condition	Standard
respirator with combination filter for vapour/particles	Type B - Inorganic gases (hydrogen sulfide, chlorine, hydrogen cyanide), Type P2, Type P3	Short term exposure	EN 136, EN 137

Personal protective equipment symbol(s):

Environmental exposure controls:

Avoid release to the environment.

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
Appearance	: Colorless to pale yellow liquid.
Colour	: colourless to slightly yellow.
Odour	: chlorine-like.
Odour threshold	: No data available
pH	: No data available
pH solution	: > 11
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable

Freezing point	: -30 - -20 °C (13 - 16% solution)
Boiling point	: ~ 100 °C (13 - 16% solution)
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: 20 hPa (13 - 16% solution, 20 °C)
Relative vapour density at 20 °C	: > 1
Relative density	: No data available
Density	: 1.2 - 1.3 g/cm³
Relative gas density	: 2.49
Solubility	: completely miscible. (water).
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 3.45 mPa·s (aqueous solution, 15%)
Explosive properties	: Product is not explosive.
Oxidising properties	: Strong oxidizing agent.
Explosive limits	: No data available

9.2. Other information
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.
10.3. Possibility of hazardous reactions
Highly reactive material. Contact with acids liberates toxic gas.
10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.
10.5. Incompatible materials
Acids. metals.
10.6. Hazardous decomposition products
Corrosive vapours. fume. Chlorine. sodium chlorate.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

sodium hypochlorite, solution… % Cl active (7681-52-9)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 20 g/kg
LC50 inhalation rat (mg/l)	> 10.5 mg/l

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified (No sensitizing effect known)
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
Potential adverse human health effects and symptoms	: Corrosive. Causes severe burns. Risk of serious damage to eyes. Irritation: may cause irritation to the respiratory system.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Ecology - water	: Very toxic to aquatic life.
Acute aquatic toxicity	: Very toxic to aquatic life.
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

sodium hypochlorite, solution… % Cl active (7681-52-9)	
LC50 fish 1	60 µg/l Rainbow trout (Oncorhynchus mykiss)
EC50 Daphnia 1	141 µg/l
EC50 72h algae (1)	0.4 mg/l Scenedesmus subspicatus
NOEC chronic fish	0.04 mg/l
NOEC chronic algae	0.005 mg/l

sodium hydroxide; caustic soda (1310-73-2)	
LC50 fish 1	125 mg/l Western mosquitofish (Gambusia affinis)
EC50 other aquatic organisms 1	40.4 mg/l species of water flea (Ceriodaphnia sp.)
EC50, microorganisms, (Photobacterium phosphoreum)	22 mg/l (15 minutes)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Sodium Hypochlorite Solution	
Bioaccumulative potential	Bioaccumulation unlikely.

sodium hydroxide; caustic soda (1310-73-2)	
Bioaccumulative potential	No bioaccumulation.

12.4. Mobility in soil

Sodium Hypochlorite Solution	
Ecology - soil	Soluble material/quickly disperses in water.

sodium hydroxide; caustic soda (1310-73-2)	
Ecology - soil	Mobile. Soluble material/quickly disperses in water.

12.5. Results of PBT and vPvB assessment

Component	
sodium hypochlorite, solution… % Cl active (7681-52-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
sodium hydroxide; caustic soda (1310-73-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
Ecology - waste materials	: Avoid release to the environment.

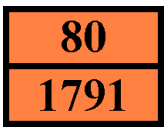
SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1791	UN 1791	UN 1791	UN 1791	UN 1791
14.2. UN proper shipping name				
HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION	Hypochlorite solution	HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION
Transport document description				
UN 1791 HYPOCHLORITE SOLUTION, 8, II, (E), ENVIRONMENTALLY HAZARDOUS	UN 1791 HYPOCHLORITE SOLUTION, 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1791 Hypochlorite solution, 8, II, ENVIRONMENTALLY HAZARDOUS	UN 1791 HYPOCHLORITE SOLUTION, 8, II, ENVIRONMENTALLY HAZARDOUS	UN 1791 HYPOCHLORITE SOLUTION, 8, II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: C9
Special provisions (ADR)	: 521
Limited quantities (ADR)	: 1l
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02
Special packing provisions (ADR)	: PP10, B5
Mixed packing provisions (ADR)	: MP15
Portable tank and bulk container instructions (ADR)	: T7
Portable tank and bulk container special provisions (ADR)	: TP2, TP24
Tank code (ADR)	: L4BV(+)
Tank special provisions (ADR)	: TE11
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Hazard identification number (Kemler No.)	: 80
Orange plates	: 
Tunnel restriction code (ADR)	: E
EAC code	: 2X

Transport by sea

Packing instructions (IMDG)	: P001
Special packing provisions (IMDG)	: PP10
IBC packing instructions (IMDG)	: IBC02

IBC special provisions (IMDG)	: B5
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP2, TP24
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: B
Segregation (IMDG)	: SG20
Properties and observations (IMDG)	: Liquid with chlorine odour. In contact with acids, evolves very irritating and corrosive gases. Mildly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L

Inland waterway transport

Classification code (ADN)	: C9
Special provisions (ADN)	: 521
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: C9
Special provisions (RID)	: 521
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Special packing provisions (RID)	: PP10, B5
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T7
Portable tank and bulk container special provisions (RID)	: TP2, TP24
Tank codes for RID tanks (RID)	: L4BV(+)
Special provisions for RID tanks (RID)	: TE11
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 80

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

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

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

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.

Other information : None.

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	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
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.
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.

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.