

# SAFETY DATA SHEET

IMMULITE® 2000/XPi Probe Cleaning Kit



SDS no.:

10385229

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

### 1.1 Product identifier

**Product name** : IMMULITE® 2000/XPi Probe Cleaning Kit  
**Product code** : L2KPM, 10385229

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

**Identified uses** Diagnostic agents.  
**Restrictions on use** For professional users only.

**Supplier** : Siemens Healthcare Diagnostics Limited  
 Park View,  
 Watchmoor Park,  
 Camberley,  
 Surrey,  
 GU15 3YL  
 United Kingdom

Phone: +44 (0) 345 600 1955

**e-mail address of person responsible for this SDS** : dx.msds.healthcare@siemens-healthineers.com

### 1.4 Emergency telephone number

CHEMTREC: +44 20 3807 3798

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to UK CLP/GHS

Met. Corr. 1, H290  
 Skin Corr. 1, H314  
 Eye Dam. 1, H318  
 Aquatic Acute 1, H400  
 Aquatic Chronic 2, H411

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Danger

**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

## SECTION 2: Hazards identification

<b>Prevention</b>	: P280 - Wear protective gloves/protective clothing/eye protection/face protection. P234 - Keep only in original container. P264 - Wash hands thoroughly after handling. P273 - Avoid release to the environment.
<b>Response</b>	: P353 - Rinse skin with water [or shower]. P301 - IF SWALLOWED: P330 - Rinse mouth. P331 - Do NOT induce vomiting. P303 - IF ON SKIN (or hair): P361 - Take off immediately all contaminated clothing. P305 - IF IN EYES: P351 - Rinse cautiously with water for several minutes. P338 - Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor/physician. P391 - Collect spillage. P390 - Absorb spillage to prevent material damage.
<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, and national regulations.
<b>Supplemental label elements</b>	: Not applicable.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: Not applicable.

### 2.3 Other hazards

<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
<b>Other hazards which do not result in classification</b>	: None known.
<b>Additional information</b>	: Not available.  Not available.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

: Mixture

Product/ingredient name	Identifiers	%	Classification	Type
sodium hypochlorite solution Cl active	EC: 231-668-3 CAS: 7681-52-9 Index: 017-011-00-1	<5	Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1) EUH031	[1]
sodium hydroxide	EC: 215-185-5 CAS: 1310-73-2 Index: 011-002-00-6	≤0.1	Skin Corr. 1A, H314 Eye Dam. 1, H318	[1] [2]
propan-2-ol	EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0	≤0.1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1] [2]
1,4-dioxane	EC: 204-661-8 CAS: 123-91-1 Index: 603-024-00-5	<0.1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 Carc. 1B, H350	[1] [2]

## SECTION 3: Composition/information on ingredients

			STOT SE 3, H335 EUH019 EUH066 <b>See Section 16 for the full text of the H statements declared above.</b>	
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### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

<b>Eye contact</b>	: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
<b>Inhalation</b>	: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Skin contact</b>	: Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Protection of first-aiders</b>	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: Adverse symptoms may include the following: pain watering redness
<b>Inhalation</b>	: No specific data.

## SECTION 4: First aid measures

<b>Skin contact</b>	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
<b>Ingestion</b>	: Adverse symptoms may include the following: stomach pains

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

<b>Notes to physician</b>	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Hazards from the substance or mixture</b>	: In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
<b>Hazardous combustion products</b>	: Decomposition products may include the following materials: halogenated compounds metal oxide/oxides

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

<b>For emergency responders</b>	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
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### 6.3 Methods and material for containment and cleaning up

## SECTION 6: Accidental release measures

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

**6.4 Reference to other sections** : See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Separate from acids. Keep away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### Seveso Directive - Reporting thresholds

#### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E1	100 tonne	200 tonne

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
sodium hydroxide	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> STEL: 2 mg/m <sup>3</sup> 15 minutes.
propan-2-ol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> STEL: 1250 mg/m <sup>3</sup> 15 minutes. STEL: 500 ppm 15 minutes. TWA: 999 mg/m <sup>3</sup> 8 hours. TWA: 400 ppm 8 hours.
1,4-dioxane	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b> TWA: 73 mg/m <sup>3</sup> 8 hours. TWA: 20 ppm 8 hours.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
sodium hypochlorite solution Cl active	DNEL	Long term Oral	0.26 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1.55 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	1.55 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	1.55 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	1.55 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	3.1 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	3.1 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	3.1 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	3.1 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	0.5 %	General population	Local
sodium hydroxide	DNEL	Long term Dermal	0.5 %	Workers	Local
	DNEL	Long term Inhalation	1 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	1 mg/m <sup>3</sup>	Workers	Local
propan-2-ol	DNEL	Long term Oral	26 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	89 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	319 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	500 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	888 mg/kg bw/day	Workers	Systemic
1,4-dioxane	DNEL	Long term Oral	0.24 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	12 mg/kg	General	Systemic

## SECTION 8: Exposure controls/personal protection

	DNEL	Long term Inhalation	bw/day 18.25 mg/ m <sup>3</sup>	population General population	Systemic
	DNEL	Long term Dermal	21 mg/kg bw/day 72 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	73 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation		Workers	Systemic
	DNEL	Short term Inhalation	144 mg/m <sup>3</sup>	Workers	Local

### PNECs

No PNECs available

#### 8.2 Exposure controls

##### Appropriate engineering controls

- If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

##### Individual protection measures

###### Hygiene measures

- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

###### Eye/face protection

- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

###### Skin protection

###### Hand protection

- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

###### Body protection

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

###### Other skin protection

- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

###### Respiratory protection

- Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

###### Environmental exposure controls

- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	:	Liquid.
<b>Colour</b>	:	Clear.
<b>Odour</b>	:	Chlorine-like.
<b>Odour threshold</b>	:	Not relevant/applicable due to nature of the product.
<b>Melting point/freezing point</b>	:	Not relevant/applicable due to nature of the product.
<b>Softening point</b>	:	Not relevant/applicable due to nature of the product.
<b>Sublimation temperature</b>	:	Not relevant/applicable due to nature of the product.
<b>Initial boiling point and boiling range</b>	:	Not available.
<b>Flammability (solid, gas)</b>	:	Not relevant/applicable due to nature of the product.
<b>Upper/lower flammability or explosive limits</b>	:	Not available.

<b>Flash point</b>	:	[Product does not sustain combustion.]
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<b>Ingredient name</b>	<b>Closed cup</b>			<b>Open cup</b>		
	<b>°C</b>	<b>°F</b>	<b>Method</b>	<b>°C</b>	<b>°F</b>	<b>Method</b>
1,4-dioxane	11	51.8				

<b>Auto-ignition temperature</b>	:
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<b>Ingredient name</b>	<b>°C</b>	<b>°F</b>	<b>Method</b>
1,4-dioxane	180	356	

<b>Decomposition temperature</b>	:	Not relevant/applicable due to nature of the product.
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<b>pH</b>	:	12.3
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<b>Viscosity</b>	:	Not available.
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<b>Solubility(ies)</b>	:
Not available.	

<b>Solubility in water</b>	:	Not relevant/applicable due to nature of the product.
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<b>Miscible with water</b>	:	Not relevant/applicable due to nature of the product.
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<b>Partition coefficient: n-octanol/ water</b>	:	Not relevant/applicable due to nature of the product.
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<b>Vapour pressure</b>	:
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<b>Ingredient name</b>	<b>Vapour Pressure at 20°C</b>			<b>Vapour pressure at 50°C</b>		
	<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>	<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>
propan-2-ol	33	4.4				

<b>Evaporation rate</b>	:	Not relevant/applicable due to nature of the product.
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<b>Relative density</b>	:	1.09
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<b>Vapour density</b>	:	Not available.
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<b>Explosive properties</b>	:	Not available.
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<b>Oxidising properties</b>	:	Not available.
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#### Particle characteristics

<b>Median particle size</b>	:	Not applicable.
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<b>Fire point</b>	:	Not available.
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<b>Burning time</b>	:	Not relevant/applicable due to nature of the product.
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## SECTION 9: Physical and chemical properties

<b>Fundamental burning velocity</b>	: Not relevant/applicable due to nature of the product.
<b>Burning rate</b>	: Not relevant/applicable due to nature of the product.
<b>SADT</b>	: Not relevant/applicable due to nature of the product.
<b>SAPT</b>	: Not relevant/applicable due to nature of the product.
<b>Heat of reaction</b>	: Not relevant/applicable due to nature of the product.
<b>Heat of combustion</b>	: Not relevant/applicable due to nature of the product.
<b>Flow time (ISO 2431)</b>	: Not relevant/applicable due to nature of the product.
<b>Molecular weight</b>	: Not relevant/applicable due to nature of the product.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: No specific data.
<b>10.5 Incompatible materials</b>	: Reactive or incompatible with the following materials: acids metals
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
propan-2-ol	LD50 Dermal	Rabbit	12800 mg/kg	-
1,4-dioxane	LD50 Oral	Rat	5000 mg/kg	-
	LD50 Oral	Rat	4200 mg/kg	-

**Conclusion/Summary** : Not available.

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
propan-2-ol	5000	12800	N/A	N/A	N/A
1,4-dioxane	4200	N/A	N/A	N/A	N/A

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
sodium hypochlorite solution	Eyes - Mild irritant	Rabbit	-	1.31 mg	-
Cl active					
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
sodium hydroxide	Eyes - Mild irritant	Rabbit	-	400 ug	-
	Eyes - Severe irritant	Monkey	-	24 hours 1 %	-
	Eyes - Severe irritant	Rabbit	-	1 %	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes	-
	Eyes - Severe irritant	Rabbit	-	1 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50	-



## SECTION 11: Toxicological information

**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur

**Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

**Conclusion/Summary** : Not available.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
sodium hypochlorite solution Cl active	Acute EC50 0.67 mg/l Marine water	Algae - Diatom - Phaeodactylum tricornutum - Exponential growth phase	96 hours
	Acute EC50 0.01 mg/l Fresh water	Daphnia - Water flea - Daphnia magna - Embryo	48 hours
	Acute LC50 56400 µg/l Marine water	Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio	48 hours
	Acute LC50 32 µg/l Marine water	Fish - Coho salmon, silver salmon - Oncorhynchus kisutch - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 0.5 mg/l Marine water	Algae - Haptophyte - Isochrysis galbana - Exponential growth phase	96 hours
	Chronic NOEC 0.1 ppm Fresh water	Fish - common carp - Cyprinus carpio - Young	30 days
sodium hydroxide	Acute EC50 40.38 mg/l Fresh water	Crustaceans - Water flea - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 125 ppm Fresh water	Fish - Western mosquitofish - Gambusia affinis - Adult	96 hours
propan-2-ol	Acute EC50 7550 mg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate	48 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Harlequinfish, red rasbora - Rasbora	96 hours

## SECTION 12: Ecological information

1,4-dioxane	Acute LC50 1.5 mg/l Fresh water Acute LC50 6700000 µg/l Marine water Chronic NOEC 145 mg/l Fresh water	heteromorpha Daphnia - Water flea - Daphnia magna - Neonate Fish - Inland silverside - Menidia beryllina Fish - Fathead minnow - Pimephales promelas	48 hours 96 hours 32 days
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**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

#### ADR/RID

**14.1 UN number** UN1791

**14.2 UN proper shipping name** HYPOCHLORITE SOLUTION (sodium hydroxide)

## SECTION 14: Transport information

**14.3 Transport hazard class(es)** 8



**14.4 Packing group** III

**14.5 Environmental hazards** No.

**Additional information** -

### ADN

**14.1 UN number** UN1791

**14.2 UN proper shipping name** HYPOCHLORITE SOLUTION (sodium hydroxide)

**14.3 Transport hazard class(es)** 8



**14.4 Packing group** III

**14.5 Environmental hazards** No.

**Additional information** -

### IMDG

**14.1 UN number** UN1791

**14.2 UN proper shipping name** HYPOCHLORITE SOLUTION (sodium hydroxide)

**14.3 Transport hazard class(es)** 8



**14.4 Packing group** III

**14.5 Environmental hazards** No.

**Additional information** -

### IATA

**14.1 UN number** UN1791

**14.2 UN proper shipping name** HYPOCHLORITE SOLUTION (sodium hydroxide)

## SECTION 14: Transport information

14.3 Transport hazard class(es) 8



14.4 Packing group III

14.5 Environmental hazards No.

Additional information -

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not applicable.

## SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture UK (GB) /REACH

### Annex XIV - List of substances subject to authorisation

#### Annex XIV

None of the components are listed.

#### Substances of very high concern

None of the components are listed.

#### Ozone depleting substances

Not listed.

#### Prior Informed Consent (PIC)

Not listed.

#### Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

#### Seveso Directive

This product is controlled under the Seveso Directive.

#### Danger criteria

##### Category

E1

#### National regulations

#### EU regulations

## SECTION 15: Regulatory information

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

### International regulations

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

**15.2 Chemical safety assessment** : Not applicable.

## SECTION 16: Other information

↗ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = GB CLP-specific Hazard statement  
 N/A = Not available  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 SGG = Segregation Group  
 vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification

Classification	Justification
Met. Corr. 1, H290	On basis of test data
Skin Corr. 1, H314	On basis of test data
Eye Dam. 1, H318	On basis of test data
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 2, H411	Calculation method

### Full text of abbreviated H statements

## SECTION 16: Other information

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
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.
EUH019	May form explosive peroxides.
EUH031	Contact with acids liberates toxic gas.
EUH066	Repeated exposure may cause skin dryness or cracking.

### Full text of classifications

Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Carc. 1B	CARCINOGENICITY - Category 1B
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Met. Corr. 1	CORROSIVE TO METALS - Category 1
Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
Skin Corr. 1A	SKIN CORROSION/IRRITATION - Category 1A
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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### Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.