Sodium hypochlorite solution

239305-500ML

Version 2.4 Revision Date 06.11.2025 Supersedes 1

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

1.1. Product identifier

Product name	:	Sodium hypochlorite solution
SDS-number	:	000000020165
Type of product	:	Mixture
Remarks	:	SDS according to Art. 31 of Regulation (EC) 1907/2006.

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

Use of the Substance/Mixture	:	Laboratory chemicals
Uses advised against	:	none

1.3. Details of the supplier of the safety data sheet

Company	:	Honeywell Specialty Chemicals Seelze GmbH Wunstorfer Straße 40 30926 Seelze Germany	Solstice Advanced Materials US, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
Telephone	:	(49) 5137-999 0	
For further information, please contact:	:	SafetyDataSheet@solstice.com	

1.4. Emergency telephone number

Emergency telephone number	:	+1-703-527-3887 (ChemTrec-Transport) +1 303-739-1378 (Medical)
	:	Poison Control Center: United Kingdom: (+44) 844 892 0111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Serious eye damage Category 1
H318 Causes serious eye damage.
Skin irritation Category 2
H315 Causes skin irritation.
Short-term (acute) aquatic hazard Category 1
H400 Very toxic to aquatic life.
Long-term (chronic) aquatic hazard Category 2
H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms	:		
Signal word	:	Danger	
Hazard statements	:	H318	Causes serious eye damage.
		H315	Causes skin irritation.
		H410	Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	P273	Avoid release to the environment.
		P280	Wear protective gloves/ eye protection/ face protection.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
		P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Hazardous components which must be listed on the label	:	sodium hypochlorite, solution	

2.3. Other hazards

Contact with acids liberates toxic gas. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical name	CAS-No. Index-No. EC-No.	Classification 1272/2008	Concentration	Remarks
sodium hypochlorite, solution	7681-52-9 017-011-00-1 231-668-3	Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335; Respiratory system Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH031	< 5 %	M(Aquatic Acute) = 10 M(Aquatic Chronic) = 1 EUH031:>= 5 %

Remaining components of this product are non-hazardous and/or are present at concentrations below reportable limits.

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:
First aider needs to protect himself. Take off all contaminated clothing immediately.

Inhalation:
Move to fresh air. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician immediately.

Skin contact:
Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician immediately.

Eye contact:
Protect unharmed eye. If easy to do, remove contact lens, if worn. Irrigate eyes for at least 15 minutes with copious quantities of water, keeping eyelids apart and away from eyeballs during irrigation. Call a physician immediately.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician immediately.

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

No data available

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

No data available

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray
Carbon dioxide (CO2)
Dry powder
Foam

Extinguishing media which shall not be used for safety reasons:
High volume water jet

5.2. Special hazards arising from the substance or mixture

Fire may cause evolution of:
Chlorine compounds
Sodium oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.
In the event of fire and/or explosion do not breathe fumes.
No unprotected exposed skin areas.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment.

6.2. Environmental precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.
Pick for disposal in tightly closed containers

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:
Exhaust ventilation at the object is necessary. Do not breathe vapours or spray mist.

Advice on protection against fire and explosion:
Normal measures for preventive fire protection.

Hygiene measures:
Separate rooms are required for washing, showering and changing clothes. Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:
Store in original container. Keep container tightly closed in a dry and well-ventilated place. Do not leave vessels/containers open Protect against light. Recommended storage temperature: 15 - 25 °C.

Advice on common storage:
Do not store near acids.

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
sodium hypochlorite, solution	Workers / Long-term systemic effects		1,55 mg/m3	Inhalation	
sodium hypochlorite, solution	Workers / Acute systemic effects		3,1 mg/m3	Inhalation	
sodium hypochlorite, solution	Workers / Long-term local effects		1,55 mg/m3	Inhalation	
sodium hypochlorite, solution	Workers / Acute local effects		3,1 mg/m3	Inhalation	
sodium hypochlorite,	Consumers /		1,55 mg/m3	Inhalation	

solution	Long-term systemic effects				
sodium hypochlorite, solution	Consumers / Acute systemic effects		3,1 mg/m3	Inhalation	
sodium hypochlorite, solution	Consumers / Long-term systemic effects		1,55 mg/m3	Inhalation	
sodium hypochlorite, solution	Consumers / Acute local effects		3,1 mg/m3	Inhalation	
sodium hypochlorite, solution	Consumers / Long-term systemic effects		0,26mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
sodium hypochlorite, solution	Fresh water: 0,00021 mg/l	Assessment factor: 10
sodium hypochlorite, solution	Marine water: 0,000042 mg/l	Assessment factor: 50
sodium hypochlorite, solution	Sewage treatment plant: 4,69 mg/kg	

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.
Do not breathe vapours or spray mist.

Engineering measures
Use with local exhaust ventilation.

Personal protective equipment
Respiratory protection:

B-P2
In the case of vapour formation use a respirator with an approved filter.
Recommended Filter type:
Inorganic gas/vapour type
Particulates type

Hand protection:
Glove material: Natural Latex
Break through time: > 480 min
Glove thickness: 0,6 mm
Lapren®706
Gloves must be inspected prior to use.
Replace when worn.
Remarks:Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de
Supplementary note: The specifications are based on information and tests from similar substances by analogy.
Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.
Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer reccomends to use the chemical protective glove in practice not longer than 50% of the recomended permeation time.
Manufacturer´s directions for use should be observed because of great diversity of types .

Eye protection:
Safety goggles

Skin and body protection:
Complete suit protecting against chemicals

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

(a) Physical state	:	liquid
(b) Colour	:	yellow to

		green
(c) Odour	:	stinging chlorine-like
(d) Melting point/freezing point	:	-30 - -20 °C
(e) Boiling point/boiling range	:	Decomposes on heating.
(h) Flash point	:	Not applicable
(i) Auto-ignition temperature	:	No data available
(j) Decomposition temperature	:	40 °C Decomposes on heating.
(k) pH	:	> 11 Concentration: 12 g/l at 20 °C
(m) Solubility(ies)	:	Water solubility: soluble
(o) Vapour pressure	:	ca. 25 hPa at 20 °C
(p) Density and / or relative density	:	1,21 - 1,26 g/cm3 at 20 °C
(q) Relative vapour density	:	2,5
(r) Particle characteristics	:	No data available

9.2 Other Information

Polymer characteristics	:	No data available

no additional data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Slow decomposition possible.

10.2. Chemical stability

ca.40 °C
Decomposes on heating.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Keep away from heat.
Keep away from direct sunlight.
Exposure to light.

10.5. Incompatible materials

Acids

10.6. Hazardous decomposition products

Fire may cause evolution of:
Chlorine compounds
Sodium oxides

SECTION 11: Toxicological information

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

(a) Acute toxicity

Acute oral toxicity:
No data available

Acute dermal toxicity:
No data available

Acute inhalation toxicity:
No data available

Acute toxicity (other routes of administration):
No data available

(b) Skin corrosion/irritation:
Species: Rabbit
Result: Mild skin irritation
Method: OECD Test Guideline 404
Classification based on Annex VI of regulation 1272/2008/EC.

(c) Serious eye damage/eye irritation:
Classification based on Annex VI of regulation 1272/2008/EC.

(d) Respiratory or skin sensitisation:
Buehler Test
Species: Guinea pig
Classification: non-sensitizing
Method: OECD Test Guideline 406

(e) Germ cell mutagenicity:
Test Method: reverse mutation assay
Cell type: Salmonella typhimurium
Metabolic activation: without metabolic activation
Result: negative

(f) Carcinogenicity:
Note: Animal testing did not show any carcinogenic effects.

(g) Reproductive toxicity:
Note: No toxicity to reproduction

(h) STOT-single exposure:
No data available

(i) STOT - repeated exposure:
No data available

(j) Aspiration hazard:
No data available

11.2. Information on other hazards

Endocrine disrupting properties
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other information:
No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:
LC50
flow-through test
Species: Oncorhynchus kisutch (coho salmon)
Value: 0,032 mg/l
Exposure time: 96 h
Test substance: REACH dossier “read-across”
anhydrous substance

Toxicity to aquatic plants:
EC50
Growth rate
Species: Pseudokirchneriella subcapitata (green algae)
Value: < 0,05 mg actives Cl/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC50
static test
Species: Pseudokirchneriella subcapitata (green algae)
Value: < 0,03 mg actives Cl/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to aquatic invertebrates:
EC50
flow-through test
Species: Ceriodaphnia dubia (water flea)
Value: 0,035 mg actives Cl/l

Exposure time: 48 h
Method: OECD Test Guideline 202
EC50
flow-through test
Species: Daphnia magna (Water flea)
Value: 0,141 mg actives Cl/l
Exposure time: 48 h
Method: OECD Test Guideline 202

12.2. Persistence and degradability

Biodegradability:
The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Not applicable

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Product does not contain substances that are persistent, mobile, and toxic (PMT/vPvM) at levels of 0.1 % or higher.

12.6. Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:
Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:
Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006
For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number or ID number
ADR/RID:3082 IMDG:3082 IATA:3082

14.2 UN proper shipping name
ADR/RID:ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(SODIUM HYPOCHLORITE)
IMDG:ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(SODIUM HYPOCHLORITE)
IATA:Environmentally hazardous substance, liquid, n.o.s.(Sodium hypochlorite)

14.3 Transport hazard class(es)
ADR/RID:9 IMDG: 9 IATA: 9

14.4 Packaging group
ADR/RID:III IMDG: III IATA: III

14.5 Environmental hazards
ADR/RID: yes Marine pollutant: yes

14.6 Special precautions for user

Not regulated for transport when single and combination packagings are <= 5L for liquids or <= 5kg for solids per ADR SP 375, IMDG 2.10.2.7 and IATA SP A197.

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Directive 2012/18/EC Listed in Regulation : E1: Hazardous to the aquatic environment	**Quantity**: 100.000 kg **Quantity**: 200.000 kg	
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).

Other inventory information

USA. List of Active Substances on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory, as amended
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
On the inventory, or in compliance with the inventory

Canada. Domestic Substances List (DSL), as amended
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

sodium hypochlorite, solution	:	H314	Causes severe skin burns and eye damage.
		H318	Causes serious eye damage.
		H335	May cause respiratory irritation.
		H400	Very toxic to aquatic life.
		H410	Very toxic to aquatic life with long lasting effects.
		EUH031	Contact with acids liberates toxic gas.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:
EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very biaccumulative substance
PBT Persistent, bioaccmulative und toxic substance

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