

Version 1.	14
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Revision Date: 03/31/2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	SODIUM HYPOCHLORITE 12.5% LIQUICHLOR®		
Recommended use of the chemical	and restrictions on use		
Recommended use :	Industrial chemical Disinfectant.		
Manufacturer or supplier's details			
Company	Univar Solutions USA, Inc.		
Address	3075 Highland Pkwy Suite 200		
	Downers Grove, IL 60515		
	United States of America (USA)		
Emergency telephone number:			
Transport North America: CHEM	TREC (1-800-424-9300)		
CHEMTREC INTERNATIONAL 1	el # 703-527-3887		
Additional Information: :	Responsible Party: Product Compliance Department E-mail: SDSNA@univarsolutions.com SDS Requests: 1-855-429-2661 Website: www.univarsolutions.com		

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification Corrosive to metals	Category 1
Skin corrosion	Category 1
Serious eye damage	Category 1
GHS label elements Hazard pictograms	
Signal word	Danger
Hazard statements	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage.
Precautionary statements	 Prevention: P234 Keep only in original container. P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately



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	all contaminated clothing. Rinse skin with water/shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage. Storage: P405 Store locked up. P406 Store in corrosive resistant container with a resistant inner liner. Disposal: P501 Dispose of contents/ container to an approved waste dis- posal plant.
Other hazards	

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
7681-52-9	Sodium hypochlorite	12.5
1310-73-2 Sodium hydroxide 0 - 5		0 - 5
Actual concentration is withheld as a trade secret		

Actual concentration is within as a trade secret

Any Concentration shown as a range is due to batch variation.

SECTION 4. FIRST AID MEASURES

General advice	 Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled	: Take victim immediately to hospital.
	Move to fresh air.
	If breathing has stopped, apply artificial respiration.
	If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	: In case of contact, immediately flush skin with plenty of water



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	for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing. If irritation develops, get med- ical attention. Burns must be treated by a physician.
	Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficul- ty. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	 In case of eye contact Immediately flush eye(s) with plenty of water. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If easy to do, remove contact lens, if worn. If eye irritation persists, consult a specialist. Take victim immediately to hospital.
	Small amounts splashed into eyes can cause irreversible tis- sue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	 Take victim immediately to hospital. Do NOT induce vomiting. Rinse mouth with water. If victim is fully conscious, give a cupful of water. If a person vomits when lying on his back, place him in the recovery position.
	Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Keep containers and surroundings cool with water spray. Carbon dioxide (CO2) Water spray Foam Dry powder



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Unsuitable extinguishing media	: High volume water jet	
	High volume water jet	
Specific hazards during fire- fighting	: Do not allow run-off from fire fighting to enter drains or water courses.	
Hazardous combustion prod- ucts	: No hazardous combustion products are known	
Further information	 Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. 	
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if nec- essary.	

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	: Use personal protective equipment.	
Environmental precautions	 Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. 	I
Methods and materials for containment and cleaning up	 Neutralise with acid. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. 	

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
Advice on safe handling	 Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and



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kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type	Control parame-	Basis
		(Form of	ters / Permissible	
		exposure)	concentration	
7681-52-9	Sodium hypochlorite	STEL	2 mg/m3	US WEEL
1310-73-2	Sodium hydroxide	С	2 mg/m3	ACGIH
		С	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z-1
		С	2 mg/m3	OSHA P0

Personal protective equipment

Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are un- known, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respi- rator if there is any potential for uncontrolled release, expo- sure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Hand protection		
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concen- tration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES



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Appearance	: liquid
Colour	: clear
	yellow
Odour	: Chlorine
Odour Threshold	: No data available
рН	: 11.5 - 13
Freezing Point (Melting point/freezing point)	: -2015 °C (-4 - 5 °F)
Boiling Point ()	: 230 °F (230 °F) Decomposition: Decomposition temperature
Flash point	: Not Flammable
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: 12 - 17.5 mmHg @ 20 °C (68 °F)
Relative vapour density	: No data available
Relative density	: 1.17 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: No data available
Solubility(ies) Water solubility	: completely soluble
Solubility in other solvents	: No data available
Partition coefficient: n- octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

: No decomposition if stored and applied as directed.



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Chemical stability	: No decomposition if stored and applied as directed.	
Possibility of hazardous reac- tions	: No decomposition if stored and applied as directed.	
Conditions to avoid	: No data available	
Incompatible materials	: Acids Combustible material Halogenated compounds Metals metal salts Organic materials organic nitro compounds Zinc	

SECTION 11. TOXICOLOGICAL INFORMATION

Skin corrosion/irritation

<u>Product:</u> Remarks: Extremely corrosive and destructive to tissue.

Components:

7681-52-9: Species: Rabbit Result: Causes burns.

1310-73-2: Species: Rabbit Result: Causes severe burns.

Serious eye damage/eye irritation

Product: Remarks: May cause irreversible eye damage.

Components:

7681-52-9: Species: Rabbit Result: Risk of serious damage to eyes.

1310-73-2: Species: Rabbit Result: Risk of serious damage to eyes.

Carcinogenicity



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IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

STOT - single exposure

Components:

7681-52-9:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	
Components: 7681-52-9: Toxicity to fish	: LC50 (Salmo gairdneri (Rainbow Fish)): 0.06 mg/l Exposure time: 96 h
	LC50 (Pimephales promelas (fathead minnow)): 5.9 mg/l
	Exposure time: 96 h Test Type: static test
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0.141 mg/l Exposure time: 48 h Test Type: flow-through test
	EC50 (Ceriodaphnia dubia): 0.035 mg/l Exposure time: 48 h Test Type: flow-through test
Toxicity to algae	: IC50: 0.023 mg/l Exposure time: 7 d Test Type: flow-through test
M-Factor (Acute aquatic tox- icity)	: 10



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Acute aquatic toxicity- As- : sessment	Very toxic to aquatic life.
Chronic aquatic toxicity- As- : sessment	Toxic to aquatic life with long lasting effects.
Persistence and degradability No data available	
Bioaccumulative potential	
No data available	
Mobility in soil	
No data available	
Other adverse effects	
Product:	
Ozone-Depletion Potential :	Regulation: 40 CFR Protection of Environment; Part 82 Pro- tection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufac- tured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological infor- : mation	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemi- cal or used container. Send to a licensed waste management company.
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):

UN1791, Hypochlorite solutions, 8, III, Marine Pollutant (SODIUM HYPOCHLORITE)



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IATA (International Air Transport Association):

UN1791, Hypochlorite solution, 8, III

IMDG (International Maritime Dangerous Goods):

UN1791, HYPOCHLORITE SOLUTION, 8, III, Marine Pollutant (SODIUM HYPOCHLORITE)

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
Sodium hypochlorite	7681-52-9	100	800
Sodium hydroxide	1310-73-2	1000	20000

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Corrosive to metals Skin corrosion or irritation Serious eye damage or eye irritation	
SARA 302	:	This material does not contain any components with a section 302 EHS TPQ.	
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.	

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:7681-52-9Sodium hypochlorite1310-73-2Sodium hydroxideThe following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:7681-52-9Sodium hypochlorite1310-73-2Sodium hypochlorite1310-73-2Sodium hypochlorite1310-73-2Sodium hypochloriteThis product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

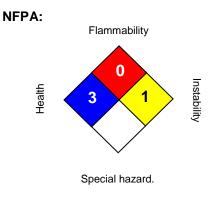
7681-52-9	Sodium hypochlorite
1310-73-2	Sodium hydroxide

Pennsylvania Right To Know

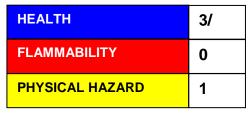


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7732-18-5 7681-52-9 1310-73-2	Water Sodium hypochlorite Sodium hydroxide
California Prop 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other re- productive harm.
•	t are reported in the following inventories: On TSCA Inventory
DSL :	All components of this product are on the Canadian DSL
AICS :	On the inventory, or in compliance with the inventory
NZIoC :	Not in compliance with the inventory
ENCS :	On the inventory, or in compliance with the inventory
KECI :	On the inventory, or in compliance with the inventory
PICCS :	On the inventory, or in compliance with the inventory
IECSC :	On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION



HMIS III:



0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.



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Legacy SDS: : R0004191

Material number:

 $\begin{array}{l} 16164756, \ 16164762, \ 16164766, \ 16173035, \ 16172686, \ 16173104, \ 16164347, \ 16164592, \\ 16164731, \ 16164730, \ 16164686, \ 16164337, \ 16172598, \ 16147922, \ 16146040, \ 16151002, \\ 16149524, \ 16158615, \ 16145640, \ 16148059, \ 16144666, \ 16147989, \ 16163791, \ 16160423, \\ 16160441, \ 16158853, \ 16151253, \ 16149870, \ 16148071, \ 16148060, \ 16147684, \ 16147117, \\ 16146776, \ 16146856, \ 16146855, \ 16146854, \ 16145965, \ 16145895, \ 16145890, \ 16145584, \\ 16145260, \ 16145144, \ 16145142, \ 16145140, \ 16145138, \ 16145137, \ 16145133, \ 16145130, \\ 16145079, \ 16163854, \ 16159810, \ 16150495, \ 16149123, \ 16147041, \ 16145471, \ 16144665, \\ 16145772, \ 16145833, \ 16148433, \ 16148183, \ 16148162, \ 16145145, \ 16145046, \ 16143737, \\ 16135287, \ 16163624, \ 16161401, \ 16148721, \ 16155765, \ 16158840, \ 16145484, \ 16166710, \\ 16148748, \ 16146506, \ 16137963, \ 16137823, \ 16137455, \ 16137753, \ 16147687, \\ 161452415, \ 16149245, \ 16150496, \ 16149504, \ 16145673, \ 16149243, \ 16136536, \ 16153596, \\ 16156860, \ 16160599, \ 16160181, \ 16160290 \end{array}$

Key or le	Key or legend to abbreviations and acronyms used in the safety data sheet					
ACGIH	American Conference of Govern- ment Industrial Hygienists	LD50	Lethal Dose 50%			
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level			
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency			
NDSL	Canada, Non-Domestic Substanc- es List	NIOSH	National Institute for Occupational Safety & Health			
CNS	Central Nervous System	NTP	National Toxicology Program			
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals			
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level			
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration			
EGEST	EOSCA Generic Exposure Scenar- io Tool	OSHA	Occupational Safety & Health Administration			
EOSCA	European Oilfield Specialty Chem- icals Association	PEL	Permissible Exposure Limit			
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commer- cial Chemical Substances			
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic			
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act			
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit			
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.			
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value			
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average			
ENCS	Japan, Inventory of Existing and	TSCA	Toxic Substance Control Act			



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	New Chemical Substances		
KECI Korea, Existing Chemical Inventory		UVCB	Unknown or Variable Composi-
			tion, Complex Reaction Products,
			and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials
			Information System
LC50	Lethal Concentration 50%		