CODE: 9078

Sodium Hypochlorite 12%

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 05/08/2018

SECTION 1 : Identification

1.1. Product identifier

Product form	:	Mixture
Product name	:	Sodium Hypochlorite 12%
Type of product	:	Solution
Product code	:	9078
Formula	:	NaOCl
Product group	:	Trade product

1.2. Recommended use and restrictions on use

Water treatment. Bleaching agent.

1.3. Supplier

Amplex Chemical Products Ltd.
600 Avenue Delmar
H9R 4A8 Pointe Claire - Canada
T 514-630-3309 - F 514-630-5951
info@amplexchem.com - http://www.amplexchem.com/

1.4. Emergency telephone number

Emergency number : Terrapure Environmental 1-800-567-7455(24/24)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS-CA)

Corrosive to metals, Category 1	H290
Skin corrosion/irritation, Category 1	H314
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-CA labelling

Hazard pictograms (GHS-CA) :

GHS05 GHS07 GHS09

Signal word (GHS-CA) : Danger

Hazard statements (GHS-CA) : H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life

Precautionary statements (GHS-CA) : P234 - Keep only in original container
P260 - Do not breathe mist/vapours/spray
P264 - Wash hands, forearms and face thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear gloves/protective clothing/eye protection/face protection
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
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 POISON CENTER or doctor
P321 - Specific treatment (reference to additional first aid

instructions)
P363 - Wash contaminated clothing before reuse
P390 - Absorb spillage to prevent material damage
P391 - Collect spillage
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P406 - Store in a corrosion resistant container with a resistant inner liner
P501 - Dispose of contents / container to a hazardous or special waste collection point in accordance with municipal, provincial and federal regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-CA)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name/Synonyms	Product identifier	%wt/wt	Classification (GHS-CA)
Sodium Hypochlorite 12%	Sodium Hypochlorite	(CAS No) 7681-52-9	10- 15	Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 3, H335
sodium hydroxide	Soda bleach liquor; Javel water	(CAS No) 1310-73-2	0.5 - 1.5	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Eye Dam. 1, H318

Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist. Do not apply neutralizing agents.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Immediately consult a doctor/medical service. Call Poison Information Centre. Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/injuries after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing. Corrosion of the upper respiratory tract. Respiratory difficulties. Possible laryngeal spasm/oedema. Risk of lung oedema.

Symptoms/injuries after skin contact : Caustic burns/corrosion of the skin.

Symptoms/injuries after eye contact : Corrosion of the eye tissue. Permanent eye damage.

Symptoms/injuries after ingestion : Vomiting. Nausea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Tumours of the gastrointestinal tract.

Chronic symptoms : No effects known.

Potential adverse human health effects and symptoms : Causes severe skin burns. Causes serious eye damage.

4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : Treat symptomatically.

Sodium Hypochlorite 12%

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Adapt extinguishing media to the environment for surrounding fires.

5.2. Unsuitable extinguishing media

No additional information available

5.3. Specific hazards arising from the hazardous product

Fire hazard : DIRECT FIRE HAZARD: Non combustible. INDIRECT FIRE HAZARD: Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard : INDIRECT EXPLOSION HAZARD: Reactions with explosion hazards: see "Reactivity Hazard".

5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

Protection during firefighting : 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

No additional information available

6.2. Methods and materials for containment and cleaning up

For containment : Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Dilute toxic gases/vapours with water spray. Take account of toxic/corrosive precipitation water.

Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

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

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain.

Hygiene measures : Observe strict hygiene. Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Incompatible materials : May be corrosive to metals.

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Storage area : Store in a cool area. Store in a dark area. Ventilation at floor level. Provide for a tub to collect spills. Keep only in the original container. Limited time of storage. Keep out of direct sunlight. Meet the legal requirements.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. reducing agents. (strong) acids. metals. organic materials.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: steel. synthetic material. polyethylene. glass. stoneware/porcelain. MATERIAL TO AVOID: iron. copper. tin. nickel.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

sodium hydroxide (1310-73-2)		
USA - ACGIH	ACGIH Ceiling (mg/m³)	2 mg/m³

Sodium Hypochlorite 12%

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

sodium hydroxide (1310-73-2)		
USA - ACGIH	Remark (ACGIH)	URT, eye, & skin irr
USA - OSHA	OSHA PEL (TWA) (mg/m³)	2 mg/m³

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing : GIVE GOOD RESISTANCE: butyl rubber. natural rubber. neoprene. polyethylene. viton. PVC. nitrile rubber.

Hand protection : Gloves.

Eye protection : Safety glasses.

Skin and body protection : Head/neck protection. Corrosion-proof clothing.

Respiratory protection : Full face mask with filter type B at conc. in air > exposure limit. High vapour/gas concentration: self-contained respirator.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear pale yellow liquid. Translucent.

Colour : greenish yellow.

Odour : Irritating/pungent odour. Characteristic odour. Smell of chlorine.

Odour threshold : No data available

pH : >12.5

pH solution : No data available

Relative evaporation rate (butylacetate=1) : No data available

Relative evaporation rate (ether=1) : No data available

Melting point : -6 °C

Freezing point : No data available

Boiling point : No data available

Flash point : Not applicable

Auto-ignition temperature : Not applicable

Decomposition temperature : No data available

Flammability (solid, gas) : Not applicable

Vapour pressure : No data available

Vapour pressure at 50 °C : No data available

Relative vapour density at 20 °C : No data available

Relative density : 1.1

Relative density of saturated gas/air mixture : No data available

Density : No data available

Relative gas density : No data available

Solubility : Soluble in water.
Water: complete

Log Pow : No data available

Log Kow : No data available

Viscosity, kinematic : No data available

Viscosity, kinematic (calculated value) (40 °C) : No data available

Explosive properties : No data available

Oxidising properties : No data available

Explosive limits : No data available

Lower explosive limit (LEL) : No data available

Upper explosive limit (UEL) : No data available

9.2. Other information

Minimum ignition energy : Not applicable

Sodium Hypochlorite 12%

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

VOC content : Not applicable (inorganic)

Other properties : Gas/vapour heavier than air at 20°C. Clear. Physical properties depending on the concentration. Substance has basic reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity : Decomposes slowly on exposure to air: oxidation resulting in increased fire or explosion risk and release of toxic and corrosive gases/vapours (chlorine). This reaction is accelerated on exposure to light, on exposure to temperature rise and on exposure to (some) metals. Reacts with organic material. Reacts with (strong) reducers: (increased) risk of fire/explosion.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use.

Conditions to avoid : None under recommended storage and handling conditions (see section 7).

Incompatible materials : metals.

Hazardous decomposition products : Reacts violently with (some) acids: release of toxic and corrosive gases/vapours (chlorine).

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 hydroxide (1310-73-2)	
LD50 oral rat	≈ 104 - 340 mg/kg
LD50 dermal rat	≈ 40 mg/kg
LD50 dermal rabbit	≈ 1350 mg/kg
LC50 inhalation rat (Vapours - mg/l/4h)	≈ 21.09 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: >12.5

Serious eye damage/irritation : Serious eye damage, category 1, implicit
pH: >12.5

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : Not classified

sodium hydroxide (1310-73-2)	
LOAEL (oral, rat, 90 days)	≈ mg/kg bodyweight/day
NOAEL (inhalation, rat, gas, 90 days)	104 - 340 ppmv/6h/day

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Causes severe skin burns. Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Dangerous for the environment.

Ecology - air : None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : Groundwater pollutant. pH shift.

Sodium Hypochlorite 12%

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

sodium hydroxide (1310-73-2)	
LC50 fish 1	45.4 mg/l (LC50; Other; 96 h; Salmo gairdneri; Static system; Fresh water; Experimental value)

12.2. Persistence and degradability

Sodium Hypochlorite 12% (7681-52-9)	
Persistence and degradability	Biodegradability: not applicable.

sodium hydroxide (1310-73-2)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

Sodium Hypochlorite 12% (7681-52-9)	
Bioaccumulative potential	Not bioaccumulative.

sodium hydroxide (1310-73-2)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Sodium Hypochlorite 12% (7681-52-9)	
Ecology - soil	No (test)data on mobility of the components available. May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : LWCA (the Netherlands): KGA category 04.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove for physico-chemical/biological treatment. May be discharged to company wastewater treatment plant.

Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

14.1. Basic shipping description

In accordance with TDG

TDG

UN-No. (TDG) : 1791

Packing group : III - Minor Danger

TDG Primary Hazard Classes : 8 - Class 8 - Corrosives

Transport document description : 1791 HYPOCHLORITE SOLUTION with more than 7% available chlorine, 8, III

Proper Shipping Name (TDG) : HYPOCHLORITE SOLUTION with more than 7% available chlorine

Hazard labels (TDG) : 8 - Corrosive substances

Explosive Limit and Limited Quantity Index : 5 L

Sodium Hypochlorite 12%

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Marine pollutant : Yes (IMDG only)

14.2. Transport information/DOT

DOT

UN-No.(DOT) : 1791
Packing group (DOT) : III - Minor Danger
Proper Shipping Name (DOT) : HYPOCHLORITE SOLUTION with more than 7% available chlorine
Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Dangerous for the environment : No
Marine pollutant : Yes (IMDG only)

Other information : No supplementary information available.

14.3. Air and sea transport

IMDG

UN-No. (IMDG) : 1791
Proper Shipping Name (IMDG) : Hypochlorite solution
Class (IMDG) : 8 - Corrosive substances
Packing group (IMDG) : II - substances presenting medium danger
EmS-No. (1) : F-A
EmS-No. (2) : S-B

IATA

UN-No. (IATA) : 1791
Proper Shipping Name (IATA) : Hypochlorite solution
Class (IATA) : 8 - Corrosives
Packing group (IATA) : II - Medium Danger

SECTION 15: Regulatory information

15.1. National regulations

Sodium Hypochlorite 12% (7681-52-9)
Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

Sodium Hypochlorite 12% (7681-52-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

sodium hydroxide (1310-73-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 16: Other information

Date of issue : 08/05/2018

Full text of H-statements:

H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation

Sodium Hypochlorite 12%

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

H400	Very toxic to aquatic life

SDS CA Amplex

IMPORTANT: The information presented herein is believed to be accurate and is offered only as a guide. Users should make their own tests to determine the suitability of these products for their own particular purposes. Users assume all risk of use, storage and handling of the product. No warranty, express or implied, is made including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. Nothing contained herein shall be construed as a license to operate under, or recommendation to infringe any patents.