



HYPO-CHLOR® NEUTRAL 0.52%

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 7/19/2016 Revision date: 10/10/2024 Supersedes: 9/16/2021 Version: 3.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : HYPO-CHLOR® NEUTRAL 0.52%
Product code : SDS VEL-128

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Disinfectant
Cleaning agent

1.3. Supplier

Veltek Associates, Inc.
15 Lee Blvd
Malvern, PA 19355-1234 USA
Telephone: +1 610-644-8335 - Fax: +1 610-644-8336
E-mail: vai@sterile.com

In Canada distributed by:
Canada Clean Room (CCR)
20 Cope Dr.
Kanata, ON K2M 2V8, Canada
Telephone: 1-(888)-595-8070

1.4. Emergency telephone number

Emergency number : CARECHEM 24: 1-215-207-0061
1-866-928-0789 (toll free USA)
Canada: 1-800-579-7421 (toll free)
Mexico: +52-55-5004-8763

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Corrosive to metals Category 1	H290	May be corrosive to metals
Hazardous to the aquatic environment – Acute Hazard Category 2	H401	Toxic to aquatic life
Hazardous to the aquatic environment – Chronic Hazard Category 3	H412	Harmful to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H290 - May be corrosive to metals
H401 - Toxic to aquatic life
H412 - Harmful to aquatic life with long lasting effects

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Precautionary statements (GHS US) : P234 - Keep only in original container.
P273 - Avoid release to the environment.
P390 - Absorb spillage to prevent material-damage.
P406 - Store in corrosive resistant container with a resistant inner liner.
P501 - Dispose of contents/container to an authorized waste collection point.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Sodium hypochlorite	CAS-No.: 7681-52-9	0.40-0.65	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Remove person to fresh air and keep at rest in a position comfortable for breathing. If symptoms develop, obtain medical attention.
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms develop, obtain medical attention.
First-aid measures after ingestion : Do NOT induce vomiting. Do not give an unconscious person anything to drink. Rinse mouth. If symptoms develop, obtain medical attention.

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

Symptoms/effects after skin contact : Repeated and/or prolonged skin contact may cause irritation.
Symptoms/effects after eye contact : Slight eye irritant upon direct contact.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Not combustible. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus when in close proximity to fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes. Avoid inhalation of vapors. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. See Section 8.
Emergency procedures : Avoid contact with skin and eyes. Avoid inhalation of vapors.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store in corrosive resistant container with a resistant inner liner. Store away from other materials.

6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Avoid contact with skin and eyes. Avoid inhalation of vapors.
Hygiene measures : Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.
Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Acids. Store in corrosive resistant container with a resistant inner liner.
Incompatible materials : Acids. Water-reactive materials. Steel.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate ventilation.
Environmental exposure controls : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear chemically resistant protective gloves. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves must be replaced after each use and whenever signs of wear or perforation appear.

Eye protection:

Wear goggles or safety glasses with side shields if contact with the eyes is possible

Skin and body protection:

Long sleeved clothing

Respiratory protection:

Not required for normal conditions of use

Thermal hazard protection:

Not required for normal conditions of use.

Other information:

Do not eat, drink or smoke during use. Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid. Colorless to slightly yellow.
Color : Colorless to slightly yellow
Odor : Chlorine
Odor threshold : No data available
pH : 10.5 – 12.4 (Concentrate) 7 - 8 (after mixing)
Melting point : Not applicable
Freezing point : No data available
Boiling point : 212 °F (100 °C)
Flash point : Not applicable
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Not applicable
Vapor pressure : No data available
Relative vapor density at 20°C : No data available
Relative density : 1.07 (Water = 1)
Solubility : Water: Miscible
Log Pow : No data available
Auto-ignition temperature : Not applicable

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Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: Not explosive.
Oxidizing properties	: Not oxidizing.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

10.2. Chemical stability

Slowly decomposes on contact with air.

10.3. Possibility of hazardous reactions

May produce small amounts of chlorine gas if mixed with incompatible materials.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Acids. Water-reactive materials. Strong cleaning agents. Steel.

10.6. Hazardous decomposition products

May produce small amounts of chlorine gas if mixed with incompatible materials.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Sodium hypochlorite (7681-52-9)	
LD50 oral, rat	8800 mg/kg Source: ECHA
LD50 dermal, rabbit	> 20000 mg/kg (12.5% Aqueous solution)
LC50 inhalation, rat (Vapors - mg/l/4h)	> 10.5 mg/l
ATE US (oral)	8800 mg/kg body weight

Skin corrosion/irritation	: Not classified pH: 10.5 – 12.4 (Concentrate) 7 - 8 (after mixing)
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Sodium hypochlorite (7681-52-9)	
pH	11

Serious eye damage/irritation	: Not classified pH: 10.5 – 12.4 (Concentrate) 7 - 8 (after mixing)
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Sodium hypochlorite (7681-52-9)	
pH	11

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Sodium hypochlorite (7681-52-9)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

Sodium hypochlorite (7681-52-9)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after skin contact : Repeated and/or prolonged skin contact may cause irritation.
Symptoms/effects after eye contact : Slight eye irritant upon direct contact.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Sodium hypochlorite (7681-52-9)	
LC50 fish	0.033 – 0.097 mg/l Source: International Uniform Chemical Information Database
EC50 Daphnia	0.141 mg/l - 48 Hours (Daphnia magna)
LC50 fish 2	0.032 mg/l - 96 Hours (marine water fish)
EC50 - Crustacea [2]	35 µg/l - 48 Hours (Ceriodaphnia dubia)
ErC50 algae	0.0499 mg/l - 72 Hours (Freshwater)
NOEC chronic fish	0.04 mg/l - 28 days (Menidia peninsulae)
NOEC chronic crustacea	0.007 mg/l - 15 days (estimated)

12.2. Persistence and degradability

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Persistence and degradability	Not established.

Sodium hypochlorite (7681-52-9)	
Persistence and degradability	Not relevant for inorganic substances.

12.3. Bioaccumulative potential

Sodium hypochlorite (7681-52-9)	
Log Pow	-3.42 (20 °C, pH 12.5, Quantitative structure-activity relationship (QSAR))

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12.4. Mobility in soil

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Ecology - soil	Miscible with water.
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Sodium hypochlorite (7681-52-9)

Ecology - soil	Miscible with water.
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12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No	: UN1791
UN-No. (TDG)	: UN1791
UN-No. (IMDG)	: UN1791
UN-No. (IATA)	: UN1791

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Hypochlorite solutions
Proper Shipping Name (TDG)	: HYPOCHLORITE SOLUTION
Proper Shipping Name (IMDG)	: HYPOCHLORITE SOLUTION
Proper Shipping Name (IATA)	: Hypochlorite solution

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 8
Hazard labels (DOT) : 8



TDG

Transport hazard class(es) (TDG) : 8
Hazard labels (TDG) : 8



IMDG

Transport hazard class(es) (IMDG) : 8

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Hazard labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8

Hazard labels (IATA) : 8



14.4. Packing group

Packing group (DOT) : III

Packing group (TDG) : III

Packing group (IMDG) : III

Packing group (IATA) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1791

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DOT Special Provisions (49 CFR 172.102)	: 148 - For domestic transportation, this entry directs to § 173.66 for: a. The standards for transporting a single bulk hazardous material for blasting by cargo tank motor vehicles (CTMV); and b. The standards for CTMVs capable of transporting multiple hazardous materials for blasting in bulk and non-bulk packagings (i.e, a multipurpose bulk truck (MBT)). A7 - Steel packaging must be corrosion-resistant or have protection against corrosion. B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized. B15 - Packaging must be protected with non-metallic linings impervious to the lading or have a suitable corrosion allowance. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. IP5 - IBCs must have a device to allow venting. The inlet to the venting device must be located in the vapor space of the IBC under maximum filling conditions. N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material. T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3) TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $95 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: $a = (d_{15} - d_{50}) / 35 d_{50}$ Where: d ₁₅ and d ₅₀ are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. TP24 - The portable tank may be fitted with a device to prevent the build up of excess pressure due to the slow decomposition of the hazardous material being transported. The device must be in the vapor space when the tank is filled under maximum filling conditions. This device must also prevent an unacceptable amount of leakage of liquid in the case of overturning.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 154
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 202
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 30 L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	: 26 - Stow "away from" acids, 53 - Stow "separated from" alkaline compounds, 58 - Stow "separated from" cyanides

TDG

UN-No. (TDG)	: UN1791
Explosive Limit and Limited Quantity Index	: 1 L
Excepted quantities (TDG)	: E2
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 1 L
Emergency Response Guide (ERG) Number	: 154

IMDG

No data available

IATA

No data available

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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

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SARA Section 311/312 Hazard Classes	Physical hazard - Corrosive to metals
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Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Sodium hypochlorite	7681-52-9	Present	Active	

Sodium hypochlorite (7681-52-9)

CERCLA RQ	100 lb
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15.2. International regulations

CANADA

Sodium hypochlorite (7681-52-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

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This chemical is a pesticide product registered by the United States Environmental Protection Agency (68959-9) and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is KEEP OUT OF REACH OF CHILDREN, WARNING. The pesticide label also includes other important information, including directions for use. In Canada, this product is a drug product registered with Health Canada. Canada DIN #02488612.

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Sodium hypochlorite(7681-52-9)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 10/10/2024

Data sources : US OSHA HazCom (GHS) 25 May 2012.

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Full text of H-phrases	
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Abbreviations and acronyms	
	ACGIH (American Conference of Government Industrial Hygienists)
	CAS (Chemical Abstracts Service) number
	EC50 (Effective Concentration 50%)
	IARC (International Agency for Research on Cancer)
	IATA (International Air Transport Association)
	IMDG (International Maritime Dangerous Goods Code)
	IMO (International Maritime Organisation)
	LC50 (Lethal Concentration 50%)
	LD50 (Lethal Dose 50%)
	NOEC (No Observed Effect Concentration)
	OECD (Organisation for Economic Co-operation and Development)
	OSHA (Occupational Safety and Health Administration) (US)
	STEL (Short Term Exposure Limit)
	TSCA (Toxic Substances Control Act) (US)
	TWA (Time Weighted Average)
	UNxxxx (Number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods)

NFPA health hazard

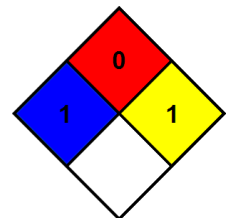
: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



Hazard Rating

Health

: 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability

: 0 Minimal Hazard - Materials that will not burn

Physical

: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

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Indication of changes:			
Section	Changed item	Change	Comments
1	Supplier	Modified	No additional information available
2	Hazards identification	Modified	No additional information available
5	Fire fighting measures	Modified	No additional information available
5	Fire fighting measures	Modified	No additional information available
6	Accidental release measures	Modified	No additional information available
7	Handling and storage	Modified	No additional information available
9	Physical and chemical properties	Modified	No additional information available
10	Stability and reactivity	Modified	No additional information available
11	Toxicological information	Modified	No additional information available
12.	Ecological information	Modified	No additional information available
14	Transport information	Modified	No additional information available
15	Regulatory information	Modified	No additional information available
16	Other information	Modified	No additional information available

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