

**SECTION 1: Identification****1.1. Identification**

Product form : Mixture
Product name : HYPO-CHLOR® 0.52%
Product code : SDS VEL-126

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Disinfectant/Cleaning agent
Restrictions on use : No data available

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

HYPO-CHLOR[®] 0.52%

Safety Data Sheet

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

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. If symptoms develop, obtain medical attention.
First-aid measures after ingestion : Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. 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.

HYPO-CHLOR[®] 0.52%

Safety Data Sheet

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

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. 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.

6.2. Environmental precautions

Do not allow to enter drains or water courses. Notify authorities if product enters sewers or public waters.

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.
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. Keep container closed when not in use.
Incompatible materials : Acids. Water-reactive materials. Steel.

HYPO-CHLOR[®] 0.52%

Safety Data Sheet

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

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 should be removed and replaced if there are any signs of degradation or breakthrough.

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 : Colorless to slightly yellow.
Color : Colorless to slightly yellow
Odor : Chlorine
Odor threshold : No data available
pH : 10.5 – 12.4
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 – 1.07 (Water = 1)
Solubility : Water: Miscible
Log Pow : No data available
Auto-ignition temperature : Not applicable

HYPO-CHLOR[®] 0.52%

Safety Data Sheet

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

| | |
|---------------------------|---------------------|
| 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 |
|---------------------------|-------------------------------------|

| Sodium hypochlorite (7681-52-9) | |
|---------------------------------|----|
| pH | 11 |

| | |
|-------------------------------|-------------------------------------|
| Serious eye damage/irritation | : Not classified pH: 10.5 – 12.4 |
|-------------------------------|-------------------------------------|

HYPO-CHLOR® 0.52%

Safety Data Sheet

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

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 : 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

HYPO-CHLOR® 0.52%

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Readily biodegradable. |
|-------------------------------|------------------------|

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)) |
|---------|---|

HYPO-CHLOR® 0.52%

Safety Data Sheet

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

12.4. Mobility in soil

HYPO-CHLOR® 0.52%

| | |
|----------------|----------------------|
| Ecology - soil | Miscible with water. |
|----------------|----------------------|

Sodium hypochlorite (7681-52-9)

| | |
|----------------|----------------------|
| Ecology - soil | Miscible with water. |
|----------------|----------------------|

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.

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) | : 1791 |
| UN-No. (IATA) | : 1791 |

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
Hazard labels (IMDG) : 8

HYPO-CHLOR® 0.52%

Safety Data Sheet

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



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
DOT Special Provisions (49 CFR 172.102) : 386 - Notwithstanding the provisions of §177.834(l) of this subchapter, cargo heaters may be used when weather conditions are such that the freezing of a wetted explosive material is likely. Shipments must be made by private, leased or contract carrier vehicles under exclusive use of the offeror. Cargo heaters must be reverse refrigeration (heat pump) units. Shipments made in accordance with this Special provision are excepted from the requirements of §173.60(b)(4) of this subchapter.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). 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, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.
T4 - 2.65 178.274(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: $a = (d15 - d50) / 35 d50$ Where: d15 and d50 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) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241

HYPO-CHLOR® 0.52%

Safety Data Sheet

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

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 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

TDG

UN-No. (TDG) : UN1791
Explosive Limit and Limited Quantity Index : 5 L
Excepted quantities (TDG) : E1
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 5 L
Emergency Response Guide (ERG) Number : 154

IMDG

No data available

IATA

No data available

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

HYPO-CHLOR® 0.52%

SARA Section 311/312 Hazard Classes : Physical hazard - Corrosive to metals

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

15.2. International regulations

CANADA

Sodium hypochlorite (7681-52-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

HYPO-CHLOR® 0.52%

Safety Data Sheet

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

National regulations

HYPO-CHLOR® 0.52%

This chemical is a pesticide product registered by the United States Environmental Protection Agency (68959-6) 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 #02360217.

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 : 9/23/2024
Data sources : US OSHA HazCom (GHS) 25 May 2012.
Other information : None.

| 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%) |

HYPO-CHLOR® 0.52%

Safety Data Sheet

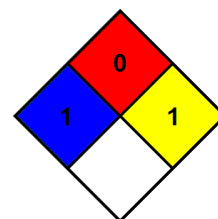
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Abbreviations and acronyms | |
|----------------------------|---|
| | 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.

| Indication of changes: | | | |
|------------------------|--------------------------------------|----------|-------------------------------------|
| Section | Changed item | Change | Comments |
| 1 | Supplier | Modified | No additional information available |
| 2 | Hazards identification | Modified | No additional information available |
| 4 | First-aid measures after eye contact | 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 |

HYPO-CHLOR[®] 0.52%

Safety Data Sheet

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

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Veltek Associates, Inc. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Veltek Associates, Inc. accepts no liability for loss or damage resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.

This SDS has been translated into the official language of the country/region in which the product is to be placed on the market. Where no official translation exists, the regulatory text is reported in English, as it appears in the relevant regulatory text.