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

1.1. Product identifier

Product form : Mixture
Product name : HYPO-CHLOR® 0.52%
UFI : MYE3-Y0Q4-G00M-8Y8Y
Product code : SDS VEL-126-EU

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Disinfectant

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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

Veltek Associates Inc., Branch Office Europe
PO Box 1062, 8200 BB Lelystad, Netherlands
Customer service (USA): +800 00888700

India distributor:
M/s. Shah Brothers
C-32, Shri Ram Indl. Estate
G.D. Ambekar Marg
Wadala, Mumbai- 400031 India
Telephone: +91 22-43560400

1.4. Emergency telephone number

Emergency number : For Spill/Exposure Emergency Response Service in Europe in English (and 23 other European languages) (24 hours): +44 (0)1235 239 670
For Middle East/Africa (24 hours): +44 (0)1235 239 671
For Hindi (24 hours): 000 800 100 7479

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Met. Corr. 1 H290
Aquatic Chronic 3 H412
Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS05

Signal word (CLP) : Warning

Hazard statements (CLP) : H290 - May be corrosive to metals.
H412 - Harmful to aquatic life with long lasting effects.

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

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sodium hypochlorite	CAS-No.: 7681-52-9 EC No.: 231-668-3 EC index No.: 017-011-00-1	0.40 - 0.65	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

Specific concentration limits

Name	Product identifier	Specific concentration limits
Sodium hypochlorite	CAS-No.: 7681-52-9 EC No.: 231-668-3 EC index No.: 017-011-00-1	(1 ≤C < 3) Eye Irrit. 2, H319 (1 ≤C < 5) Skin Irrit. 2, H315 (3 ≤C < 100) Eye Dam. 1, H318 (5 ≤C < 100) EUH031 (5 ≤C < 100) Met. Corr. 1, H290 (5 ≤C < 100) Skin Corr. 1B, H314 (20 ≤C < 100) STOT SE 3, H335

Full text of H- and EUH-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 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. Rinse mouth. Never give anything by mouth to an unconscious person. If symptoms develop, obtain medical attention.

4.2. Most important symptoms and effects, both 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. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Not combustible. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.

5.3. Advice for firefighters

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 : Ventilate area. Avoid inhalation of vapours. Avoid contact with skin, eyes and clothing. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. See Section 8.

Emergency procedures : Ventilate area. Avoid inhalation of vapours. Avoid contact with skin, eyes and clothing.

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 inhalation of vapours. Avoid contact with skin, eyes and clothing.
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.

7.3. Specific end use(s)

Cleaning agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Provide adequate ventilation.

8.2.2. Personal protection equipment

Personal protective equipment:
Avoid all unnecessary exposure.

8.2.2.1. Eye and face protection

Eye protection:
Wear goggles or safety glasses with side shields if contact with the eyes is possible. Standard EN 166 - Personal eye-protection.

8.2.2.2. Skin protection

Skin and body protection:
Long-sleeved protective clothing

Hand protection:
Wear chemically resistant protective gloves. Standard EN 374 - Protective gloves against chemicals. 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.

8.2.2.3. Respiratory protection

Respiratory protection:
Not required for normal conditions of use

8.2.2.4. Thermal hazards

Thermal hazard protection:
Not required for normal conditions of use.

8.2.3. Environmental exposure controls

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

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
Colour	:	Colourless to slightly yellow.
Appearance	:	Colourless to slightly yellow.
Odour	:	Chlorine.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	100 °C
Flammability	:	Not applicable
Explosive properties	:	Not explosive.
Oxidising properties	:	Not oxidising.
Explosive limits	:	Not applicable
Lower explosive limit (LEL)	:	Not available
Upper explosive limit (UEL)	:	Not available
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Not available
pH	:	10.5 – 12.4
Viscosity, kinematic	:	Not available
Solubility	:	Water: Miscible
Log Kow	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50 °C	:	Not available
Density	:	Not available
Relative density	:	1 – 1.07 (Water = 1)
Relative vapour density at 20 °C	:	Not available
Particle size	:	Not applicable
Particle size distribution	:	Not applicable
Particle shape	:	Not applicable
Particle aspect ratio	:	Not applicable
Particle aggregation state	:	Not applicable
Particle agglomeration state	:	Not applicable
Particle specific surface area	:	Not applicable
Particle dustiness	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Corroded metals : Steel

9.2.2. Other safety characteristics

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Additional information : Based on available data, the classification criteria are not met

Sodium hypochlorite (7681-52-9)	
LD50 oral, rat	8830 mg/kg (12.5% Aqueous solution)
LD50 dermal, rabbit	> 20000 mg/kg (12.5% Aqueous solution)

Skin corrosion/irritation : Not classified
pH: 10.5 – 12.4
Serious eye damage/irritation : Not classified
pH: 10.5 – 12.4
Respiratory or skin sensitisation : Not classified
Additional information : Based on available data, the classification criteria are not met
Germ cell mutagenicity : Not classified
Additional information : Based on available data, the classification criteria are not met
Carcinogenicity : Not classified
Additional information : Based on available data, the classification criteria are not met
Reproductive toxicity : Not classified
Additional information : Based on available data, the classification criteria are not met
STOT-single exposure : Not classified
Additional information : Based on available data, the classification criteria are not met

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

STOT-repeated exposure : Not classified
Additional information : Based on available data, the classification criteria are not met
Aspiration hazard : Not classified
Additional information : Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms : Slight eye irritant upon direct contact, Repeated or prolonged contact may cause skin irritation

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

Sodium hypochlorite (7681-52-9)	
LC50 fish	0.06 mg/l - 96 Hours (freshwater fish)
LC50 fish 2	0.032 mg/l - 96 Hours (marine water fish)
EC50 Daphnia	0.141 mg/l - 48 Hours (Daphnia magna)
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

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))

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. Results of PBT and vPvB assessment

HYPO-CHLOR® 0.52%
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment 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 ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : UN 1791
UN-No. (IMDG) : UN 1791
UN-No. (IATA) : UN 1791

14.2. UN proper shipping name

Proper Shipping Name : HYPOCHLORITE SOLUTION
Proper Shipping Name (IMDG) : HYPOCHLORITE SOLUTION
Proper Shipping Name (IATA) : Hypochlorite solution
Transport document description (ADR) : UN 1791 HYPOCHLORITE SOLUTION, 8, III, (E)
Transport document description (IMDG) : UN 1791 HYPOCHLORITE SOLUTION, 8, III
Transport document description (IATA) : UN 1791 Hypochlorite solution, 8, III

14.3. Transport hazard class(es)

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

:

IMDG
Transport hazard class(es) (IMDG) : 8
Danger labels (IMDG) : 8

:

IATA

Transport hazard class(es) (IATA) : 8
Danger labels (IATA) : 8

:

14.4. Packing group

Packing group : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Tunnel restriction code (ADR) : E

Transport by sea

No data available

Air transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3.	HYPO-CHLOR® 0.52% ; Sodium hypochlorite	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008
3(b)	Sodium hypochlorite	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	HYPO-CHLOR® 0.52% ; Sodium hypochlorite	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
1	Identification of the substance/mixture and of the company/undertaking	Modified	
2	Hazards identification	Modified	
5	Fire fighting measures	Modified	
6	Accidental release measures	Modified	
7	Handling and storage	Modified	
9	Physical and chemical properties	Modified	
10	Stability and reactivity	Modified	
11	Toxicological information	Modified	
12.	Ecological information	Modified	
14	Transport information	Modified	
15	Regulatory information	Modified	
16	Other information	Modified	

Abbreviations and acronyms	
	ADR (Accord européen relatif au transport international des marchandises Dangereuses par Route)
	CAS (Chemical Abstracts Service) number
	CLP (Classification, Labeling and Packaging)
	EC (European Community)
	EC50 (Effective Concentration 50%)
	EN (European Norm)
	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)
	PBT (Persistent, Bioaccumulative and Toxic)
	REACH (Registration, Evaluation and Authorisation of CHemicals)
	SADT (Self-Accelerating Decomposition Temperature)

Abbreviations and acronyms	
	STEL (Short Term Exposure Limit)
	TWA (Time Weighted Average)
	UNxxxx (Number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods)
	vPvB (very Persistent and very Bioaccumulative)

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : Classification procedure according to Regulation (EC) No. 1272/2008 [CLP]: Physical hazards: On basis of test data. Health hazards: Calculation method. Environmental hazards: Calculation method.

Full text of H- and EUH-statements	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
EUH031	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet (SDS), EU