SAFETY DATA SHEET

Version 1.0 Revision Date N/A Print Date 05/04/2020

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

1.1 Product identifiers

Product name : EVOM Chloride Solution

Other means of identification

Synonyms:
Chlorine Bleach, Bleach, Soda Bleach, Chlorox, Sodium Hypochlorite Solution
CAS #: Mixture
RTECS # NH3486300 (Sodium Hypochlorite)
CI#: Not available

Product Number : 101014

Brand : World Precision Instruments, Inc.

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

Identified uses : Disinfecting electrode, bleaching agent
Uses advised against: No information available

1.3 Details of the supplier of the safety data sheet

Company : World Precision Instruments, Inc.
175 Sarasota Center Blvd
Sarasota, FL 34240

Telephone : +1 941-371-1003

Fax : +1 941-377-5428

1.4 Emergency telephone number

Emergency Phone # : +1-941-371-1003

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Signal Word: DANGER

Hazard statement

Hazard statement(s)

H315 Causes skin irritation.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

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.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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SECTION 3: Composition/information on ingredients

3.1 Mixtures

Components	CAS-No.	Weight %
Water	7732-18-5	>92
Sodium Hypochlorite	7681-52-9	4-7
Sodium Hydroxide	1310-73-2	<1

EC-No. 231-668-3

Index-No. 017-011-00-1

Classification:

Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H314, H318, H400, H410 M-Factor - Aquatic Acute: 10 M-Factor - Aquatic Chronic: 10

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Consult a physician**.**

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Rinse mouth with water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Consult a physician

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation

Causes eye burns

Can burn mouth, throat, and stomach

Irritating to respiratory system

Nausea

Vomiting

May cause methemoglobinemia and cyanosis

Shallow respiration

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Chlorine, Hydrogen chloride gas, Sodium oxides

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Avoid contact with skin, eyes and clothing. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and materials for containment and cleaning up

Stop leak if you can do it without risk. Neutralize with Sodium Thiosulfate or Sodium Bisulfite. Dilute with water. Absorb spill with inert material (e.g. vermiculite, dry sand or earth).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in area provided with appropriate exhaust ventilation. Keep away from incompatible materials. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapors or spray mist. Handle in accordance with good industrial hygiene and safety practice

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature in the original container. Keep at temperature not exceeding 35 °C/ 95 °F. It can be stored at temperatures between 2 and 30 deg. C. Protect from light. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible materials

Metals, Acids, Amines, Combustible materials, Organic materials, Reducing agents, Ammonia

Incompatible with ammonium acetate, ammonium carbonate, ammonium nitrate, ammonium oxalate, and ammonium phosphate, primary amines, phenyl acetonitrile, ethyleneimine, methanol, acidified benzyl cyanide, formic acid, urea, nitro compounds, methylcellulose, cellulose, aziridine, ether

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

United States

Components	CAS-No.	**OSHA**	**NIOSH**	**ACGIH**	**AIHA WEEL**
Water	7732-18-5	None	None	None	None
Sodium Hypochlorite	7681-52-9	None	None	None	2 mg/m3 STEL
Sodium Hydroxide	1310-73-2	2 mg/m3 TWA	2 mg/m3 Ceiling	2 mg/m3 Ceiling	None

Canada

Components	CAS-No.	**Canada - Alberta**	**Canada - British Columbia**	**Canada - Ontario**	**Canada - Quebec**
Water	7732-18-5	None	None	None	None
Sodium Hypochlorite	7681-52-9	None	None	None	None
Sodium Hydroxide	1310-73-2	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling

Australia and Mexico

Components	CAS-No.	**Australia**	**Mexico**
Water	7732-18-5	None	None
Sodium Hypochlorite	7681-52-9	None	None
Sodium Hydroxide	1310-73-2	None	2 mg/m3 Ceiling

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Chemical resistant protective suit; Boots; Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: Liquid Color: Colorless. Light yellow. Greenish-Yellow
b) Odour	Characteristic. Slight Chlorine-like.
c) Odour Threshold	No data available
d) pH	10.5-11.5
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	()No data available
h) Evaporation rate	()No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	23.3 hPa at 20 °C (68 °F)
l) Vapour density	No data available

m) Relative density(Specific gravity) 1.07-1.093 @ 20 deg. C

n) Water solubility Freely soluble in water

o) Partition coefficient: n-octanol/water No data available

p) Auto-ignition temperature No data available

q) Decomposition temperature No data available

r) Viscosity No data available

s) Explosive properties No data available

t) Oxidizing properties No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Decomposition of sodium hypochlorite takes place within a few seconds with the following salts: ammonium acetate, ammonium carbonate; ammonium nitrate, ammonium oxalate and ammonium phosphate
Primary amines and sodium hypochlorite react to form normal chloroamines, which are explosive
Chloramine gas may be evolved when ammonia and bleach are mixed
Mixing sodium hypochlorite with ammonia, acids, detergents or organic matter (e.g urine, feces, etc.) will release chlorine gas
Chlorination of ethyleneimine with sodium hypochlorite produces the explosive compound 1-chloroethyleneimine
Evolves flammable hydrogen gas on contact with metals
It may be a fire risk in contact with organic materials
Contact with combustible materials (wood, paper, oil, clothing, etc.) may cause fire

10.2 Chemical stability

Stable under recommended storage conditions. Unstable in air unless mixed with sodium hydroxide. Slowly decomposes on contact with air. Decomposed by carbon dioxide from air. Decomposed by hot water. Sensitive to light. Exposure to light accelerates decomposition.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur

10.4 Conditions to avoid

Heat. Releases chlorine when heated above 35 deg. C. Exposure to light. Exposure to air. Incompatible materials

10.5 Incompatible materials

Metals
Acids
Amines
Combustible materials
Organic materials
Reducing agents
Ammonia
Incompatible with ammonium acetate, ammonium carbonate, ammonium nitrate, ammonium oxalate, and ammonium phosphate, primary amines, phenyl acetonitrile, ethyleneimine, methanol, acidified benzyl cyanide, formic acid, urea, nitro compounds, methylcellulose, cellulose, aziridine, ether

Other information

Corrosivity: Extremely corrosive in presence of aluminum
Corrosive in presence of stainless steel (304)
Corrosive in presence of stainless steel (316)

Special Remarks on Corrosivity: Sodium hypochlorite is extremely corrosive to brass and moderately corrosive to bronze

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Chlorine, Hydrogen chloride gas, Sodium oxides

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Sodium oxides

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Component Information

Water CAS-No. 7732-18-5

LD50/oral/rat = > 90 mL/kg
Oral LD50 Rat LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Sodium Hypochlorite CAS-No. 7681-52-9
LD50/oral/rat = 8.91 g/kg
Oral LD50 Rat LD50/oral/mouse = 5800 mg/kg
LD50/dermal/rabbit = >10000 mg/kg
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Sodium Hydroxide CAS-No. 1310-73-2

LD50/oral/rat = 140 - 340 mg/kg
Oral LD50 Rat LD50/oral/mouse = No information available
LD50/dermal/rabbit = 1350 mg/kg
Dermal LD50Rabbit LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = 500 mg/kg Oral LDL(Lowest Lethal Dose) Rabbit

Skin corrosion/irritation

Contact causes severe skin irritation and possible burns. Can cause burning pain, inflammation and blisters. Contact with skin may also cause vesicular eruptions and eczematoid dermatitis which becomes evident upon re-exposure.

Serious eye damage/eye irritation

Causes eye burns. Eye contact may also cause lacrimation, corneal clouding, cataract formation, necrosis of the cornea, corneal and conjunctival edema, conjunctival hemorrhages.

Respiratory or skin sensitization

Irritating to respiratory system. Inhalation causes slight to severe respiratory tract irritation and delayed pulmonary edema. Can cause dyspnea (shortness of breath and difficulty breathing). Other symptoms may include sore throat, chest tightness, coughing. Exposure to vapor or mist causes eye irritation.

Ingestion

Causes digestive or gastrointestinal tract burns. Symptoms of acute ingestion may include: 1. pain and inflammation of the mouth, pharynx, esophagus, and stomach, difficulty swallowing, abdominal pain, drooling, 2. erosion of the mucous membranes (chiefly of the stomach), nausea, vomiting, diarrhea, choking, coughing, hemorrhage, 3. hypotension and circulatory collapse with cold and clammy skin (due to methemoglobinemia), cyanosis, and shortness of breath and shallow respirations, 4. confusion, delirium, somnolence, coma, 5. edema of the pharynx, glottis, larynx with stridor and obstruction, 6. perforation of the esophagus, or stomach, with mediastinitis or peritonitis.

Germ cell mutagenicity

For Sodium Hypochlorite: May affect genetic material, mutations in microorganisms

Carcinogenicity

Not considered carcinogenic. Not classifiable as to its carcinogenicity to humans.

Components	CAS-No.	IARC	ACGIH Carcinogens	NTP	OSHA-HCS Carcinogens	Australia-Notifiable Carcinogenic Substances	Australia-Prohibited Carcinogenic Substances
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Sodium Hypochlorite	7681-52-9	Monograph 52 [1991] Hypochlorite salts	Not listed	Not listed	Not listed	Not listed	Not listed
Sodium Hydroxide	1310-73-2	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)
IARC (International Agency for Research on Cancer)
NTP (National Toxicology Program)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic environment. Very toxic to aquatic organisms

Sodium Hypochlorite - 7681-52-9
Freshwater Algae Data: 0.095 mg/L EC50 Skeletonema costatum 24 h

Freshwater Fish Species Data: 0.06 - 0.11 mg/L LC50 Pimephales promelas 96 h flow-through 1 4.5 - 7.6 mg/L LC50 Pimephales promelas 96 h static 1 0.4 - 0.8 mg/L LC50 Lepomis macrochirus 96 h static 1 0.28 - 1 mg/L LC50 Lepomis macrochirus 96 h flow-through 1 0.05 - 0.771 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1 0.03 - 0.19 mg/L LC50 Oncorhynchus mykiss 96 h semi-static 1 0.18 - 0.22 mg/L LC50 Oncorhynchus mykiss 96 h static 1
Water Flea Data: 0.033 - 0.044 mg/L EC50 Daphnia magna 48 h 2.1 mg/L EC50 Daphnia magna 96 h

Sodium Hydroxide - 1310-73-2
Freshwater Fish Species Data: 45.4 mg/L LC50 Oncorhynchus mykiss 96 h static 1
Water Flea Data: 40.4 mg/L EC50 Ceriodaphnia sp. 48h

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation Contaminated packaging

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal.

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Water	7732-18-5	None	None	None	None
Sodium Hypochlorite	7681-52-9	None	None	None	None
Sodium Hydroxide	1310-73-2	None	None	None	None

SECTION 14: Transport information

DOT (US)

UN number:3082 Hazard Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Sodium hypochlorite solution)
Reportable Quantity (RQ): 2000 lbs
Poison Inhalation Hazard: No

IMDG

UN number: 3082 Hazard Class: 9 Packing group: III EMS-No: F-A, S-F

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium hypochlorite solution)

IATA

UN number:3082 Hazard Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Sodium hypochlorite solution)

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15: Regulatory information

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Water	7732-18-5	Present(ACTIVE)	Present KE-35400	Present	Not present	Present	Present	Present 231-791-2
Sodium Hypochlorite	7681-52-9	Present(ACTIVE)	Present KE-31506	Present	Present (1)-237	Present	Present	Present 231-668-3
Sodium Hydroxide	1310-73-2	Present(ACTIVE)	Present KE-31487	Present	Present (2)-1972,(1)-410	Present	Present	Present 215-185-5

U.S. Regulations

Sodium Hypochlorite

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 1707

New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List: Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances: 100 lb RQ
Louisiana Reportable Quantity List for Pollutants: 100lbfinal RQ 45.4kgfinal RQ
California Directors List of Hazardous Substances: Present
FDA - Direct Food Additives 21 CFR 173.315
FDA - 21 CFR - Total Food Additives 172.892, 173.315, 175.105, 176.170, 177.2800, 178.1010

Sodium Hydroxide

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 1706
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances: 1000 lb RQ 100 lb RQ
Louisiana Reportable Quantity List for Pollutants: 1000lbfinal RQ 454kgfinal RQ
California Directors List of Hazardous Substances: Present
FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1763
FDA - Direct Food Additives 21 CFR 173.310 FDA - 21 CFR –
Total Food Additives 155.191, 155.194, 163.110, 163.111, 163.112, 172.560, 172.814, 172.892, 173.310, 176.170, 176.180, 176.210, 177.1600, 177.2800, 184.1763, 73.85

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity: This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity:	Female Reproductive Toxicity:
Water	7732-18-5	Not Listed	Not Listed	Not Listed	Not Listed
Sodium Hypochlorite	7681-52-9	Not Listed	Not Listed	Not Listed	Not Listed
Sodium Hydroxide	1310-73-2	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 Chemical Category	Section 313 Reporting de minimis
Water	7732-18-5	None	None	None	None	None
Sodium Hypochlorite	7681-52-9	100 lb final RQ 45.4 kg final RQ	None	None	None	None
Sodium Hydroxide	1310-73-2	1000 lb final RQ 454 kg final RQ	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Water	7732-18-5	Not Applicable	Not Applicable
Sodium Hypochlorite	7681-52-9	Not Applicable	Not Applicable
Sodium Hydroxide	1310-73-2	Not Applicable	Not Applicable

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component	WHMIS 2015 Hazard Classification
Water 7732-18-5 (>92)	Not a dangerous product according to HPR classification criteria
Sodium Hypochlorite 7681-52-9 (4-7)	Skin corrosion/irritation - Category 2: H315 Causes skin irritation. (12%); Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage. (12%); Serious Eye Damage/Eye Irritation - Category 2A: H319 Causes serious eye irritation. (4%); Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation. (12%)
Sodium Hydroxide 1310-73-2 (<1)	Corrosive to Metals - Category 1: H290 May be corrosive to metals. (potentially corrosive to metals; the supplier should be contacted for more information); Health Hazard Not Otherwise Classified - Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Skin

corrosion/irritation - Category 2: H315 Causes skin irritation. (0.4% in aqueous solution); Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation. (0.4% in aqueous solution); Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation. (0.4% in aqueous solution)

Canada Hazardous Products Regulation — This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

E Corrosive material

Components	WHMIS 1988
Water	Uncontrolled product according to WHMIS classification criteria
Sodium Hypochlorite	E 4%, 6%, 12%
Sodium Hydroxide	E including 0.04% in aqueous solution, 0.04N, 0.08%, 0.4% in aqueous solution, 2%, 2.5%, 4% in aqueous solution, 5%, 10%, 16%, 20%, 40%, 50% in aqueous solution, 8.7N

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	**WHMIS Ingredient Disclosure List**
Sodium Hypochlorite	1%
Sodium Hydroxide	1%

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Water	7732-18-5	Present	Not listed
Sodium Hypochlorite	7681-52-9	Present	Not listed
Sodium Hydroxide	1310-73-2	Present	Not listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Water	7732-18-5	Not listed
Sodium Hypochlorite	7681-52-9	Not listed
Sodium Hydroxide	1310-73-2	Not listed

Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Water	7732-18-5	Not listed
Sodium Hypochlorite	7681-52-9	Not listed
Sodium Hydroxide	1310-73-2	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008
Water	7732-18-5	
Sodium Hypochlorite	7681-52-9	Skin corrosion/irritation-Skin corr. 1B: H314 Causes severe skin burns and eye damage.; Hazardous to aquatic environment - acute hazard Aquatic Acute 1: H400 Very toxic to aquatic life.; Supplemental Hazards: EUH031 Contact with acids liberates toxic gas. (C >= 5 %)017-011-00-1 Supplemental Hazards: EUH031 Contact with acids liberates toxic gas. (C >= 5 %)017-011-00-1
Sodium Hydroxide	1310-73-2	Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (C >= 5 %)011-002-00-6 Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (C >= 5 %); Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (2 % <= C <5 %); Skin corrosion/irritation - Skin Irrit. 2: H315 Causes skin irritation. (0.5 % <= C <2 %); Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation. (0.5 % <= C <2 %)011-002-00-6

EU - CLP (1272/2008)

R-phrase(s)

R31 - Contact with acids liberates toxic gas.
R34 - Causes burns.
R50 - Very toxic to aquatic organisms.

S -phrase(s)

28A - After contact with skin, wash immediately with plenty of water.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S50A - Do not mix with acids
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.
S 1/2 - Keep locked up and out of the reach of children.

Components	CAS-No.	**Classification**	**Concentration Limits:**	**Safety Phrases**
Water	7732-18-5			
Sodium Hypochlorite	7681-52-9	R31 C; R34 N; R50	5%<=C R31	S: (1/2)-28-45-50-61
Sodium Hydroxide	1310-73-2	C; R35	5%<=C C; R35 2%<=C<5% C; R34 0.5%<=C<2% Xi; R36/38	S1/2 S26 S37/39 S45

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
C – Corrosive**.**
N - Dangerous for the environment.


N


C

SECTION 16: Other information

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. World Precision Instruments, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See www.wpiinc.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.