SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Name	Sodium Hypochlorite
1.2. Synonyms	Trade name: Sodium hypochlorite solution, Bleach, Liquid chlorine, Javea water Formula: Sodium hypochlorite (10 to 17%)
	Recommended uses: It is a compound that can be used for water disinfection. It is used on a large scale for surface purification, whitening, odor elimination.
1.4. Manufacturer information	
PLANTA COATZACOALCOS Complejo Industrial Pajaritos S/N Entre Avenida 4 y 5 Coatzacoalcos, Ver. CP 96400	**PLANTA NORESTE** Carretera Sta. Catarina - García km 5.5 Estación Puerto Durazno Lote 1 Parque Industrial García García, Nuevo León CP 66000
PLANTA SANTA CLARA Km 16.5 Vía Morelos Col. Santa Clara Ecatepec, EDOMEX C.P 55540	**PLANTA TLAXCALA** Carretera México-Veracruz Km 128 Corredor Industrial San Cosme-Xaloztoc Tlaxcala CP 90460
PLANTA HERMOSILLO Calle del Plomo N° 45 Col. Parque Industrial Hermosillo, Sonora CP 83299	**Website** http://www.cydsa.com http://www.iquisa.com
1.5 Emergency phone number	**SETIQ:** 800 00 21400 ó +52 (55) 5559 4049 **PLANTA COATZACOALCOS:** +52 (921) 211 3428 **PLANTA SANTA CLARA:** +52 (55) 569 92460 ó +52 (55) 569 92483 **PLANTA HERMOSILLO:** +52 (662) 251 1024 ó +52 (662) 251 1027 **PLANTA NORESTE:** +52 (81) 8158 2703 **PLANTA TLAXCALA:** +52 (241) 418 4726

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the hazardous chemical substance	**SGA – MX Classification**	
	Corrosive substance for metals	H290
	Acute toxicity if swallowed, Category 5	H302
	Skin corrosion / irritation, Category 1	H314
	Serious eye damage / eye irritation, Category 1	H318
	Acute inhalation toxicity, category 5	H332
	Very toxic for aquatic organisms.	H400

2.2. Signaling elements, precautionary statements and hazard pictograms included

SGA-MX pictograms

Signal Word: **DANGER**

Hazard Indications

Code	Hazard Indications
H290	Corrosive substance for metals
H302	Acute toxicity if swallowed, Category 5
H314	Skin corrosion / irritation, Category 1
H318	Serious eye damage / eye irritation, Category 1
H332	Acute inhalation toxicity, category 5
H400	Very toxic for aquatic organisms.

Precautory statemets

Prevention:	
P103	Read the label before use
P234	Keep only in the original packaging
P262	Avoid all contact with eyes, skin or clothing
P261	Avoid breathing dusts / fumes / gases / mists / vapors / aerosols
P273	Do not disperse in the environment
P280	Wear gloves / protective clothing / protective equipment for the face / eyes
P390	Absorb spillage to prevent material damage
Intervention:	
P302 + P352	In case of skin contact, wash with plenty of water for at least 15 minutes.
P303 + P361 + P353	In case of contact with skin or hair, immediately remove all contaminated clothing. Rinse skin with water or shower
P305 + P351 + P338	In case of contact with the eyes: Rinse with water carefully for 15 minutes. Remove contact lenses. Continue with the washing and Call the doctor phisician
P301 + P330 + P331	In case of ingestion, rinse mouth. Do not induce vomiting
P304 + P340	In case of inhalation, transport the victim outdoors and keep it at rest in a position that facilitates breathing
Storage:	
P420	Store separately from incompatible materials
P406	Store in a corrosion resistant container / in a container ... with resistant inner lining
P403 + P233	Store in a well-ventilated place. Keep the recipient hermetically sealed.
P403 + P235	Store in a well ventilated place. Keep cool
2.3. Other hazards that do not lead to classification	None

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Chemical identity of the substance	Chemical Name: Sodium Hypochlorite NaOCl	Chemical Name: Cáustic Soda
3.2. Common name, synonyms of the dangerous chemical or mixture	Common name: Liquid Chlorine, Bleach	Common name: Sodium hydrate, lye soda
3.3. Chemical family of the substance	Oxisales	Alkaline hydroxides
3.4. CAS No., ONU no, and others	No. CAS: 7681-52-9 No. ONU: 1791	No. CAS: 1310-73-2 No. ONU: 1824
3.5. Impurities and stabilizing additives which are in turn classified and which contribute to the classification of the substance	Does not apply	Does not apply

SECTION 4. FIRST AID MEASURES

4.1. First aid description

First aid is the immediate and temporary care provided to an exposed person.

General measures:

- Avoid exposure to the product, taking appropriate protective measures. Consult the doctor, taking the safety data sheet.
- Before any action, use personal protective equipment appropriate to the corresponding risk.
- Remove the person from the exhibition area and remove all contaminated clothing with the appropriate personal protective equipment if necessary under a shower with plenty of fresh and running water.
- Recover clothing and handle it as a hazardous waste, being careful not to contaminate clean areas.
- Keep the person calm, in a comfortable position, warm him up, and encourage slow and deep breathing.
- In case of respiratory arrest, provide rescue breathing with ventilation every 6 seconds, ensuring that the patient's chest is raised, use barrier devices connected to an oxygen source, in all cases avoid mouth-to-mouth breathing. (medical care according to current AHA protocols).
- In case of cardiorespiratory arrest, initiate cardiopulmonary resuscitation maneuvers, with two ventilations for 30 chest compressions always with a barrier device connected to an oxygen source, in all cases avoid mouth-to-mouth breathing, (medical attention according to current AHA protocols).

Skin contact (First choice treatment):

- Compliance with general measures
- As soon as it is available, apply DIPHOTERINE spray or solution in the contaminated area according to its instructions for use

Skin contact (Second choice treatment):

- Wash the affected part under a shower with plenty of fresh and running water for at least 30 minutes, if irritation persists, repeat the rinse
- In case of burns get medical attention

Information for the doctor or advanced life support providers:

- Treat injured areas as thermal burns
- Assess hospital admission and antibiotic use

• When performing cures, remove all necrotic tissue provided the appropriate treatment to the procedure
• In case of presenting a scar process with the characteristics of a latex glove, re-administer DIPHOTERINE or surgical washing according to available protocols
• Reassessment every 24 hours until complete remission of symptoms
• Do not use antidotes, neutralizing solutions or home remedies in any case.

Eye contact (First choice treatment):

- Compliance with general measures.
- Start rinsing with water, as soon as it is available to apply a complete bottle of DIPHOTERINE on each injured eye.

Eye contact (Second choice treatment):

- Start rinsing with water for at least 30 minutes if irritation persists, repeat the rinse.
- In case of burns get medical attention.
- Assess hospital admission, the use of antibiotics, analgesics and anti-inflammatories.
- Value occlusion of both eyes.
- Revaluation every 24 hours by ophthalmology
- Do not use antidotes, neutralizing solutions or home remedies in any case.

Information for the doctor or advanced life support providers:

- Treat injured areas as thermal burns.
- Assess hospital admission, the use of antibiotics, analgesics and anti-inflammatories.
- Value occlusion of both eyes.
- Revaluation every 24 hours by ophthalmology
- Do not use antidotes, neutralizing solutions or home remedies in any case.

Seek medical attention IMMEDIATELY. Do not transport the victim until the recommended rinsing period is over, unless you can continue rinsing during transportation.

Ingestion:

- Compliance with general measures
- DO NOT CAUSE OR INDUCE VOMITING
- Move immediately to hospital environment.
- During the transfer if the victim is alert, rinse the mouth and provide 250 milliliters of water every 5 minutes for 20 minutes, if a spontaneous vomit occurs, have the victim lean forward with the head down to prevent the vomiting from inhaling, rinse your mouth.

Information for the doctor or advanced life support providers:

- If conditions permit gastric lavage.
- Administer intravenous analgesics and anti-inflammatories, do not administer medication orally.
- Assess advanced airway management.
- Perform endoscopy shortly.
- The rest of the treatment is the responsibility of the attending physician.
- Do not use antidotes, neutralizing solutions or home remedies in any case.

Inhalation:

- Compliance with general measures
- Start of airway management with high-flow oxygen therapy devices, with wet oxygen for as long as necessary, reassess the airway every 10 minutes
- Assess the advanced management of the airway
- Immediately transfer to hospital

	Information for the doctor or advanced life support providers: • A treating physician trial early initiation of drug therapy according to the signs and symptoms • Rate transfer to hospital unit • Chest radiography every 24 hours, starting on the first day and for 5 more days. • Verify the occurrence of acute lung edema and treat according to symptomatology. • The rest of the treatment is the responsibility of the attending physician • Do not use antidotes, neutralizing solutions or home remedies in any case
4.2. Acute or chronic most important symptoms and effects	CORROSIVE! Contact with acids releases toxic chlorine gas. It causes burns to the skin, eyes, respiratory tract and mucous membranes. Harmful or fatal if swallowed. May cause sensitization by skin contact. Toxic to aquatic organisms. Read the entire Material Security Data Sheet to more fully assess the risks. **Inhalation:** Can irritate the nose and throat. If mixed with acids, hypochlorite solutions can release large amounts of chlorine gas. This gas can cause severe nose and throat irritation. Exposure to high levels of chlorine gas can result in severe lung damage. **Skin contact:** Sodium hypochlorite solutions can cause skin irritation. In severe cases they can result in chemical burns. **Eye contact:** It can cause severe burns and corneal damage, which can result in permanent blindness. **Ingestion:** May cause irritation, pain and inflammation to the mouth and stomach, vomiting, shock, Confusion, delirium, coma and in severe cases, death. It can cause perforation in the esophagus and stomach. **Subchronic effects:** Prolonged or repeated skin contact with solutions containing from 4 to 6% sodium hypochlorite may cause allergic contact dermatitis. Symptoms include chronic eczema that causes itching. People with sensitive skin may react to very dilute solutions (0.04 - 0.06% NaOCl). **Existing medical problems that may be aggravated by exposure:** Skin irritation may be aggravated in people with existing skin lesions. Breathing vapors or sprays can aggravate acute or chronic asthma and chronic lung diseases, such as emphysema and bronchitis.
4.3. Indication of the need to receive immediate medical attention and, where appropriate, special treatment	**Information for the doctor:** Symptomatic. Treatment and supportive therapy as indicated. • DO NOT PROVIDE antidotes, acids such as juices, soda, vinegar, etc. This product contains materials that can cause severe pneumonia if aspirated. • Ensure that the patient does not have respiratory difficulties. • After exposure, the patient must remain under medical supervision for a minimum of 72 hours as complications may occur. Acute pulmonary edema is likely to be caused and its effects may manifest up to 5 days after the first contact.

SECTION 5. FIRE FIGHTING MEASURES

5.1. Suitable extinguishing media	Use dry chemical powder, alcohol-resistant foam, sand or CO_2. Some foams may react with the product.

	DO NOT USE direct water jets, better use water in the form of a spray to cool the containers exposed to the fire and to control the steam. For large fires, use an AFFF alcohol-resistant medium expansion foam for all uses, in accordance with the techniques recommended by the foam manufacturer. The foam supplier should be consulted for recommendations regarding foam types and speed of dispersion in applications specific. Use carbon dioxide or dry chemical means for fires little ones. If there is, only water available, use it in the form of fog.
5.2. Specific hazards of the chemical	Sodium hypochlorite is a strong chemical oxidant, but the solution does not generate combustion. The reaction with nitrogen compounds, organic chlorine compounds or easily oxidizable compounds (reducing agents) can be explosive. This material is not flammable, but it can decompose with heat and light, causing an accumulation of pressure that can cause an explosion. When heated, it can release chlorine gas. A strong reaction with oxidizing or organic materials can result in a fire. See Section 10.
5.3. Special measures to be followed by firefighting groups	**Special firefighting measures:** Firefighters must wear full protective clothing, including self-contained breathing apparatus, in a fire where this material is involved. Gas and toxic vapors are produced by decomposition. Water can be used to cool hypochlorite solution containers exposed to the heat of a fire. This must be done from a safe distance because the containers can break. Make a dike to contain the water used in the fire control, for later disposal; Do not disperse the material. Prevent water used for fire control or dilution from entering watercourses, drains or springs. **Special protective equipment that firefighting personnel must wear:** If there is a risk of contact with the product, normal protective clothing for firefighters may not provide adequate protection. Chemical resistant clothing (i.e. a chemical splash suit) and a self-contained positive pressure breathing apparatus (approved by MSHA / NIOSH or its equivalent) may be necessary. Chemical protective clothing can provide little or no thermal protection. **Fires involving tank or trailer loads:** Control the fire from a maximum distance or use automatic fasteners for hoses or nozzles with monitor. Do not introduce water to the containers. Cool containers with quantities of water that flood until after the fire has been extinguished. Withdraw immediately in case the sound of the instruments increases Safety discharge or the tank begin to discolor. ALWAYS stay away from the ends of the tanks. **Evacuation:** If a truck or tank participates in a fire, INSULATE it and consider evacuation within a radius of 0.8 km. Remove containers from fire area if you can do it without risk.

SECTION 6. MEASURES TO BE TAKEN IN CASE OF SPILL OR ACCIDENTAL LEAKAGE

6.1. Personal cautions, protective equipment and emergency procedure

PREVENTIVE MEASURES:

• Ensure that cleaning is done by trained personnel.
• If possible, stop the leak without risk to personnel.
• Eliminate all sources of ignition (smoking, burners, sparks or flame).
• The conditions of use, the appropriateness of engineering or other control measures, as well as actual exposures, will dictate the need for special protective instruments in your workplace.
• Do not touch damaged containers or spilled material, unless you are wearing appropriate protective clothing.
• Do not touch spilled material.
• Prevent entry into waterways, sewers, basements or confined areas.
• Restrict access to the area until cleaning is finished.
• All equipment must be grounded and not cause sparks.
• Wear appropriate personal protective equipment.

Engineering Controls:
Ventilation should be applied where there is an incidence of emissions at the point of origin or dispersion of regulated pollutants in the work area. Ventilation control for the contaminant as close as possible to its point of generation is the most economical and safest method of minimizing personnel exposure to air pollutants. The most effective measures are to place all processes in a total protection enclosure and mechanize the handling procedures to avoid all personal contact. Smoking should be prohibited in areas where sodium hypochlorite solution is stored or handled

Deactivation for small spills:
The hypochlorite can be desabled by covering it with a reducing agent such as sodium sulphite or sodium thiosulfate.

Deactivation Chemistry:
Use sodium sulfite or dilute hydrogen peroxide to reduce the material. Make sure there are no chlorine residues before neutralizing with a weak solution of hydrochloric or sulfuric acid.

6.2. Environmental cautions

Waste disposal:
Dispose of waste material in an approved facility for waste treatment and disposal, in accordance with applicable regulations.

Do not dispose of in normal trash or drainage systems.

Contaminated cleaning material should be considered as hazardous waste.

6.3. Methods and materials for the containment and cleaning of spills or leaks

Small spills:
Cover it with DRY earth, sand or other non-combustible material. Use clean tools that do not generate sparks to collect the material and place it in plastic containers with covers that are not too tight for later disposal. Rinse the area with water.

Large spills:
Avoid entering drains and confined areas. Make a dike with inert material (sand, earth, etc.). Contact the fire and emergency services and the provider for advice. Collect the product to recover or dispose of it by pumping it in polyethylene containers. Consider neutralization and disposal on the site.

Make sure all tools and equipment are properly decontaminated after cleaning. Collect contaminated soil and water, as well as the absorbent for proper disposal. Comply with federal, state or provincial, and local regulations regarding the discharge report.

Collect the product with a plastic shovel and place it in an appropriate container.
Dispose of waste according to current environmental regulations; Do not dispose of them in drainage systems.

Restrict access to the area until cleaning is finished. Make sure that cleaning is done by trained personnel.

Wear appropriate personal protective equipment. Do not touch spilled material.

If possible, stop the leak without risk to personnel

Note:
Cleaning material can be considered as hazardous waste according to environmental laws

SECTION 7. HANDLING AND STORAGE

7.1. Safe handling cautions

Prohibited to eat, drink or smoke while handling. Avoid contact with eyes, skin and clothing. Wash your arms, hands, and nails after handling this product. The use of gloves is recommended. Facilitate access to emergency showers and eyewash. Avoid inhalation of the product. Keep containers closed while not in use. Use the smallest possible amounts in designated areas with adequate ventilation. Handle containers carefully.

Have emergency equipment available immediately (for fires, spills, leaks, etc.) Make sure all containers are labeled. Wear appropriate personal protective equipment. The product is NOT compatible with clothing or leather goods. People who work with this chemical should be adequately trained regarding their risks and their safe use.

Empty containers may contain hazardous waste. Avoid generating spray. Transfer the solutions using equipment that is resistant to corrosion. With caution transfer to strong containers made of compatible materials. Never return contaminated material to its original container. Considerable heat is generated when diluted in water. Appropriate handling procedures should be followed to avoid a strong boil, splash or violent eruption of the diluted solution. Use cold water to avoid excessive heat generation.

Procedures and Management Equipment:
Avoid generating dew. Use the smallest possible amounts in designated areas with adequate ventilation. Keep containers closed

Empty containers may contain hazardous waste. Use corrosion resistant transfer equipment when distributing.

7.2. Conditions of safe storage, including any incompatibility

Storage Requirements:
Store it in a cool, dry, ventilated area and away from direct sunlight.

Store the containers at a temperature of 15 to 29 ° C (59 to 84 ° F). Do not store it above 30 ° C (86 ° F) or below the freezing point. Keep containers tightly closed when not in use and when empty, protect against damage.

Discharge caps must be checked using full personal protection.

Store it away from incompatible materials such as reducing materials, strong acids, nitrogen compounds, copper, nickel and cobalt. Use corrosion-resistant structural materials and lighting and ventilation systems in the storage area.

This product has a shelf life of up to six months at 60 ° F or less.

Tanks must be surrounded by dikes or some suitable means of secondary containment. Appropriate containment measures should be taken to prevent spills or leaks from the storage tanks inside, as well as from the pipe discharge stations to prevent the substance from entering the drainage or other channels that directly discharge to the system of water or a municipal drainage system.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

GUIDELINES FOR EXHIBITION

PRODUCT: Sodium hypochlorite:
Guidelines for the level of environmental exposure in the workplace (WEELS) / American Association of Industrial Hygiene (AIHA) / average short-term time 1996; 2 mg / m3 :15 minutes.

	Sodium hypochlorite	Chlorine*	Sodium Hydroxide
ACGIH TWA	not established	0.5 ppm	not established
OSHA PEL	not established	0.5 ppm	2 mg/m3
NIOSH IDLH	not established	10 ppm	not established
ACGIH STEL	not established	1 ppm	not established
OSHA STEL	not established	1 ppm como Cl2	not established
(15 min. límite)	not established	not established	not established
ACGIH (límite)	not established	not established	2 mg/m3

* Chlorine may be present with the decomposition product.

8.2. Appropriate technical controls

Keep the workplace ventilated. Normal ventilation for usual manufacturing operations is generally adequate. Local hoods must be used during operations that produce or release large quantities of product. In low or confined areas, mechanical ventilation should be provided.
Have showers and eyewash stations

8.3. Individual protection measures, such as personal protective equipment , PPE

General information:
The risk assessment must be performed and documented in each work area
The use of the product and to select the personal protective equipment corresponding to the risk.
The following recommendations should be followed.
Have a self-contained breathing apparatus for emergency use. Have a product resistant suit for emergency use. Personal protective equipment for the body should be selected based on the tasks to be performed and the risks involved. Protect eyes, face and skin from contact with the product.

Eye / face protection:
Safety glasses and face shield should be worn to avoid the risk of splashing exposure.
Wear eye protection that meets the requirements of ANSI Z87.1
DO NOT wear contact lenses.
Keep a fountain for eye washing and quick wash showers in the work area.

Hand Protection:
When handling this product, waterproof protective gloves made of PVC, nitrile or butyl, Polyethylene, Viton.

Body protection:
Wear work clothes and chemical resistant safety shoes. Use full antacid suit made of PVC, nitrile or butyl. Polyethylene, Viton. Evaluate the resistance under your conditions of use and carefully maintain clothing.

Respiratory protection:
An NIOSH / MSHA approved air-purifying respirator equipped with cartridges for acid spray at concentrations up to 10 times the TLV. Use an air respirator if concentrations are higher or unknown.

Environmental exposure controls:
For disposal information, see section 13.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

% volatile by volume	ND
Appearance	Aqueous liquid, from green to yellow
Color:	Greenish yellow
Density:	1.17 to 1.25 gr./ml.
Physical State:	LiquOid
Molecular formula:	Na-O-Cl
Lower explosion limit in air:	NA, it's not fuel
Upper explosion limit in air:	NA, it's not fuel
Odor:	Penetrating chlorine-like scent
Specific weight	Approximately 1,198 (12.5% w / w solution) @ 20 ° C (68 ° F)
Molecular weight:	74.4
pH:	11-13
Volatility percentage	NA
Vapor pressure:	3.7 to 100 mmHg @ 9 at 48 ° C; 12.5% w / w
Combustion and thermal products of	Chlorine, sodium oxide, oxygen
hazardous decomposition to health	100%
Water solubility):	NA, it's not fuel
Auto ignition temperature:	It decomposes at more than 40 ° C (104 ° F)
Boiling temperature:	- 13.9 to -26.9 ° C (7.0 to -16.5 ° F)
Melting Temperature:	NA, it's not fuel
Flash Temperature:	ND

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity	Product reactions or decompositions are not expected to occur under normal storage conditions.
10.2. Chemical stability	Stable at room temperature. The stability of the solution may vary under conditions such as: Concentration, catalytic metal impurities, pH, temperature, light sources, ion content, organic impurities
10.3. Possibility of dangerous reactions	**Metals:** (Generally, violent oxygen evolution does not occur, but the pressure limit of the closed system can be exceeded and cause a break in it): Copper, Nickel, Cobalt, Iron. **Hydrogen peroxide:** Violent oxygen evolution can occur. **With reducing agents such as:** Sodium sulphite, Sodium bisulfite, Sodium hydrosulfite, Sodium thiosulfate develops intense heat can cause boiling with material projection. **Polymerization:** It Will not occur.

10.4. Conditions to be avoided

Keep it away from high temperatures and sunlight or ultraviolet.
Do not store at more than 30 ° C (86 ° F). Do not allow solutions to evaporate until dry.
Stay away from incompatible.

10.5. Incompatible materials

Incompatibility with other substances:

Incompatible Substances		**mixture**
Acids, acidic compounds and acidic cleaning products		
Aluminum sulfate Aluminum chloride Ferrous or Ferric Chloride Ferrous or Ferric Sulfate Chlorinated Ferrous Sulfate Solution Brick cleaners and concrete	Hydrochloric acid Sulfuric acid Hydrofluoric acid Fluorisilicic acid Phosphoric acid	Release or violent discharge of chlorine gas
Chemical and cleaning products that contain aminium such as:		
Ammonium hydroxide Ammonium chloride Ammonium silica fluoride	Ammonium sulphate Quaternary ammonium salts	Formation of explosive mixtures. Chlorine release or discharge or other harmful gases
Organic chemicals and chemical mixtures such as:		
Solvents, cleaning products that use solvents in their bases Fuels and oils Fuels Amines	Propane Organic polymer Ethanediol Insecticides Methanol	Formation of explosive mixtures. Violent release or discharge of chlorine gas Formation of organic mixtures with chlorine
Metals such as:		
Copper Nickel Cobalt Iron		Generally does not occur violent detachment of oxygen but can be exceeded system pressure limit closed and cause a break in the same.
Hydrogen peroxide		There may be a violent detachment of oxygen.
Reducing agents such as:		
Sodium sulfite Sodium bisulfite	Sodium hydrosulfite Sodium thiosulfate	Develop intense heat, you can boil and splash.

Incompatibility with other substances:
It can react violently with strong acids, producing toxic chlorine gas. Other incompatible ones include organic materials, cellulose, oxidizable materials, ammonia, urea, ammonium salts, ethyleneamine, cyanides, nitrogen compounds, alcohols, metals and metal oxides. Reacts with metals to produce flammable hydrogen gas.

Metal and metal oxide catalysts break down hypochlorites, which develops oxygen and often causes explosions.It can react explosively with nitrogen-containing compounds, or form chloroamines, which are explosive.Alkaline hypochlorite solutions may react explosively with some chlororganic compounds.

Other conditions:
The solution may be corrosive in some metals.

	Hazardous Polymerization: Will not occur. **Otras condiciones:** La solución puede ser corrosiva en algunos metales. **Polimerización peligrosa:** No ocurrirá.
10.6. Hazardous decomposition products	**Thermal decomposition:** Chlorine, sodium oxide, oxygen, chlorine oxides, sodium chlorate and hydrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information about probable income routes	Inhalation: of the vapors is irritating. Skin contact: may cause chemical burns. Eye contact: may cause serious injury, burns. Ingestion: May cause damage to the gastrointestinal tract and burns to the mouth and mucous membranes.
11.2. Symptoms related to physical, chemical and toxicological characteristics	Symptoms include chronic eczema that causes itching. Sensitized people may react to very dilute solutions (0.04- 0.06% NaOCl) that touch their skin.
11.3. Immediate and delayed effects, as well as chronic effects produced by a short or long term exposure	Spray and sodium hypochlorite solutions can cause skin irritation. In severe cases, they can result in chemical burns.
11.4. Numerical measures of toxicity (such as estimates of acute toxicity)	**Data on toxicity:** TDLo (lowest published dose) orally-woman 1 mg / kg Intravenous TDLo - man 45 mg / kg Intraperitoneal rat LD50 (lowest published dose) 65.12 µg / kg LD50 orally rat-8910 mg / kg LD50 oral mouse-5,800 mg / kg LC50 rat> 10500 mg / m 3 (1 hour) **Data on irritation:** Rabbit eyes: with a dose of 10 mg, the effect is moderate. Rabbit eyes: with a dose of 1.31 mg, the effect is medium. Human skin: A solution of 4% NaOCl applied to the skin for 48 hours, caused severe effect. **Acute toxicity:** Not available **Skin irritation or corrosion:** Dermal irritation (rabbit, calc.): Corrosive **Serious eye damage or irritation:** It can cause severe burns and corneal damage, which can result in permanent blindness. **Respiratory or skin sensitization:** Dew can irritate the nose and throat. If mixed with acids, hypochlorite solutions They can release large amounts of chlorine gas.
11.5. Carcinogenicity:	Sodium hypochlorite is not classified as a carcinogen in the ACGIH (American Conference of Government Industrial Hygienists) or IARC (International Agency for Research on Cancer), it is not regulated as a carcinogen by OSHA (Occupational Safety and Health Administration) and is not It is listed as a carcinogen by the NTP (National Toxicology Program).

11.6. When specific chemical data are not available	Does not apply
11.7. Mixtures	Does not apply
11.8. Information about the mixture or its components	Does not apply
11.9. Other information	**Mutagenicity:** Sodium hypochlorite causes mutations in several short-term studies where cultured bacteria and mammalian cells are used. The importance of these tests is not clear. It was not mutagenic in tests (chromosomal and micronucleus aberration) in live animals. **Reproductive effects:** A high dose of NaOCl in the drinking water caused a small but significant increase in mouse sperm abnormality. **Teratogeneity and phototoxicity:** No information available.

SECTION 12. ECOTOXICOLOGICAL INFORMATION

Toxicity in fish:	Harmful to aquatic life in low concentrations LC50 (48 hours) rainbow trout 0.07 mg / L. LC50 (96 hours) fat head cyprin 5.9 mg / L.
Toxicity in invertebrates and microbes:	LOEC Oncorhynchus kisutch 0.02 mg/L.

Otros efectos adversos: No contiene halógenos orgánicos ni metales.

SECTION 13. INFORMATION CONCERNING THE DISPOSAL OF PRODUCTS

13.1. Description of waste and information on how to handle them safely and their disposal methods, including disposal of contaminated containers	**INFORMATION FOR DISPOSAL:** • Dispose of waste material in an approved facility for waste treatment and disposal, in accordance with applicable regulations. • The processing, use or contamination of this product may change waste management options. • What cannot be saved for recovery or recycling, including containers, must be handled in appropriate and approved facilities for waste disposal. • Do not dispose of waste with normal waste, or in drainage systems. • Review federal, state and local requirements before disposal. Note - The cleaning material can be considered as hazardous waste according to environmental laws. This product does not contain harmful substances for the ozone layer, nor is it manufactured with such Substances.

SECTION 14. INFORMATION CONCERNING TRANSPORTATION

14.1. UN number	UN 1791
14.2. Official United Nations transport designations	Sodium Hypochlorite
14.3. Class (s) of hazards in the transport	Class: 8 Classification in the USA OSHA Classification: Dangerous in accordance with the definition of the Hazard Communication Standard. TSCA Inventory Status: Yes SARA risk categories: ACUTE: Yes CHRONIC: No FIRE: No REAGENT: Yes | REPENTINA DOWNLOAD: No

Primary Risk Labels

Secondary Risk Labels

Does not apply

14.4. Packing group, if applicable	II
14.5. Environmental risks	Environmentally hazardous materials
14.6. Special precautions for the user	Use only authorized transport for hazardous materials. Avoid transport in vehicles where cargo space is not separated from the driver's compartment. Ensure that the driver is aware of the potential risks of the cargo and knows what to do in case of an accident or emergency.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and to the IBC Code (IBC)s	Does not apply

SECTION 15. REGULATORY INFORMATION

15.1. Specific provisions on safety, health and environment for dangerous chemical substances or mixture in question	Do not dispose of waste with normal trash, nor in drainage systems. be saved for recovery or recycling, including containers, must be handled in appropriate and approved facilities for waste disposal. The processing, use or contamination of this product may change the waste management options. Analyze the waste material to verify its corrosivity, before disposal. **NOM-054-SEMARNAT-1993**: Which establishes the procedure to determine the incompatibility between two or more residues considered as dangerous

NOM-018-STPS-2015: System for the identification and communication of hazards and risks from hazardous chemical substances in work centers.

SECTION 16. OTHER INFORMATION INCLUDING THOSE CONCERNING THE PREPARATION AND UPDATING OF SAFETY DATA SHEET

16.1. The information is considered correct, but it is not exhaustive and will be used only as guidance, which is based on current knowledge of the chemical or mixture and is applicable to the appropriate safety precautions for the product.

Before using the product in a new process or experiment, a complete safety and compatibility study of the materials must be carried out. Ensure proper air ventilation. Make sure national and local regulations are met. Although special care has been taken during the preparation of this document, no responsibility is accepted for injuries or damages.

This information should be used to make an independent determination of the methods to protect workers and the environment.

NFPA Risk

Health: 3
Fire: 0
Reactivity: 1
Specific: OXI

16.2. Abreviaturas y acrónimos

ACGIH = American Conference of Governmental Industrial Hygienists.
AIHA = American Industrial Hygiene Association.
AHA = American Heart Association.
APF = Assigned Protection Factor.
° C = Celsius degrees.
C = Ceiling.
CAS = Chemical Abstract Service.
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act.
CEPA = Canadian Environmental Protection Act.
CLR = Clear Language Regulations.
CO_2 = Carbon dioxide.
CT = Short Time.
DOT = Department of Transportation.
ERPG =
° F = Degrees Fahrenheit.
HCl = Hydrochloric acid.
HDS = Safety Data Sheet.
IARC = International Agency for Research on Cancer.
IDLH = Immediately Dangerous to Life or Health.
IPVS = Immediately Hazardous to Life and Health.
L = Liters.
LC50 = Lethal Concentration, the concentration of the material in the air is expected kill 50% of a group of test animals.

LD50 = Lethal dose, is expected to kill 50% of a group of test animals.
LMPE = Maximum Allowed Limit of Exposure.
mg / m^3 = milligrams per cubic meter.
mL = milliliters.
NIOSH = National Institute for Occupational Safety and Health.
NFPA = National Fire Protection Agency.
NOM = Official Mexican Standard.
UN = United Nations Organization.
OSHA = Occupational Safety & Health Administration.
oz = ounces
P = Peak
PEL = Permissible Exposure Limit.
pH = Hydrogen Potential.
PPT = Average Weighted in Time.
CPR = Cardiac pulmonary resuscitation
SARA: Superfund Amendments and Reauthorization Act of the U.S. EPA
SCBA = Self-Contained Breathing Apparatus.
SCT = Ministry of Communications and Transportation.
SEMARNAT = Secretariat of the Environment and Natural Resources.
STEL = Short Term Exposure Limit.
STPS = Ministry of Labor and Social Security.
TDG = Transportation of Dangerous Goods.
TLm = median Threshold Limit.
TLV = Threshold Limit Value.
TWA = Time-Weighted Average.
UN = United Nation.
VLA-ED = environmental limit value of daily exposure, or
WHMIS = Workplace Hazardous Materials Information System.
Diphotérine® = is a solution for washing projections ocular or cutaneous chemicals. Placed in the workplace and used as first aid, allows to minimize or avoid the appearance of a chemical burn, stopping the action of the irritant or corrosive and its penetration thanks to its properties, chelating, amphoteric and hypertonic.

Ask your doctor for more information

16.3. References

American Conference of Governmental Industrial Hygienists.
American Industrial Hygiene Association.
American Chemistry Council
Center for Chemical Process Safety.
Comprehensive Environmental Response, Compensation, and Liability Act
Chemical Abstract Service.
Chemical and other Safety Information-Oxford University.
Chemical Hazard Response Information System (USA).
Code of Federal Regulations (USA).
European Inventory of Existing Commercial Substances.
Guía de Respuesta a Emergencias (México).
International Agency for Research on Cancer.
International Chemical Safety Cards.
National Library of Medicine (USA).
New Jersey Department of Health and Senior Services.
NIOSH POCKET GUIDE TO CHEMICAL HAZARDS, U.S. Department of Health and Human
NOM-002/1-SCT-2009
NOM-004-SCT/2008
NOM-010-STPS-2014.
NOM-018-STPS-2015

	NOM-052-SEMARNAT-2005 **NOM-053-SEMARNAT-1993.** **NOM-054-SEMARNAT-1993** **Registry of Toxic Effects of Chemical Substances, Canadian Centre for Occupational Health and** **Superfund Amendments and Reauthorization Act of the U.S. EPA.** **SISTEMA GLOBALMENTE ARMONIZADO DE CLASIFICACIÓN Y ETIQUETADO DE PRODUCTOS QUÍMICOS (SGA),Sexta edición revisada** **TOXNET.** **TRANSPORT OF DANGEROUS GOODS (TDG), Canadian Centre for Occupational Health and** **Transport Of Hazardous Materials (49CFR).** **US Department of Health and Human Services.** **US Department of Transportation.** **US Environmental Protection Agency.** **US National Fire Protection Agency.** **US Occupational Safety and Health Administration.**