SAFETY DATA SHEET

(in accordance with The Hazard Communication Standard (HCS) (29 CFR 1910.1200))

CLARASOL

Section 1: Identification.

Product identifier used on the label and Other means of identification.

Product Name: CLARASOL

Recommended use of the chemical and restrictions on use.
Solution to bleach clothes
Specific end use(s).
Not available.
Uses advised against:
Uses other than those recommended.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

Company: **Industrias JLC, S.A. de C.V.**
Address: Calzada San Lorenzo Tezonco No.201
City: San Nicolás Tolentino
Province: Iztapalapa, Ciudad de México
Telephone: 5556121225
E-mail: gerenciadecalidad@clarasol.com
Web: www.clarasol.com

Emergency phone number: 5556121225 (Monday-Friday; 08:00-18:00)

Section 2: Hazard(s) Identification.

Classification of the chemical in accordance with paragraph (d) of §1910.1200
In accordance with The Hazard Communication Standard (HCS) (29 CFR 1910.1200):
Acute toxicity to the aquatic environment, Category 2 : Toxic to aquatic life.
Serious eye damage, Category 1 : Causes serious eye damage.
Skin Corrosive, Category 1 : Causes severe skin burns and eye damage.

Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200.

Symbol(s):

Signal Word:
Danger
Hazard statement(s):

H314	Causes severe skin burns and eye damage.
H401	Toxic to aquatic life.

Precautionary statement(s):

P260	Do not breathe dusts or mists.
P264	Wash with water thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a doctor
P321 Specific treatment (see section 4 of the safety data sheet).
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local regulations.

Contains:
sodium hypochlorite, solution ... % Cl active

Other hazards.

Section 3: Composition/Information on Ingredients.

Substances.
Not Applicable.

Mixtures.
Chemical name and concentration ranges of all ingredients that are classified as health hazards in accordance with paragraph (d) of §1910.1200 and that are present above their cut-off/concentration limits or ingredients that are below their cut-off/concentration limits and present a health risk:

Identifiers	Name	Concentrate	(*)Classification	
			Classification	specific concentration limit
Index No: 017-011-00-1 CAS No: 7681-52-9 EC No: 231-668-3 REACH No: 01-2119488154-34-XXXX	sodium hypochlorite, solution ... % Cl active	3.5% - 5%	Aquatic Acute 1, H400 - Skin Corr. 1B, H314	EUH031: C ≥ 5 %

(*)The complete text of the Hazard statement(s) is given in section 16 of this Safety Data Sheet.

Section 4: First-Aid Measures.

Description of first aid measures.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.
Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.
Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Dont let the person to rub the affected eye.

Skin contact.
Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.
If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

Most important symptoms and effects, both acute and delayed.

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Corrosive Product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage, if this occurs immediate medical assistance is required.
Contact with eyes may cause irreversible damage.

Indication of any immediate medical attention and special treatment needed.
Request immediate medical attention. Never administer anything orally to persons who are unconscious. Do not induce vomiting. If the person vomits, clear the respiratory tract. Cover the affected area with a dry sterile bandage. Protect the affected area from pressure or friction.

Section 5: Fire-Fighting Measures.

The product does not present any particular risk in case of fire.

Extinguishing media.
Suitable extinguishing media:
Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:
Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

Special hazards arising from the mixture.
Special risks.
Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

Advice for firefighters.
Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.
According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

Section 6: Accidental Release Measures.

Personal precautions, protective equipment, and emergency procedures.
For exposure control and individual protection measures, see section 8.

Environmental precautions: Prevent the contamination of drains, surface or subterranean waters, and the ground.

Methods and materials for containment and cleaning up.
Pick up the spill with non-combustible absorbent materials (soil, sand, vermiculite, diatomite, etc.). Pour the product and the absorbent in an appropriate container. The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

Reference to other sections: for exposure control and individual protection measures, see section 8, for later elimination of waste, follow the recommendations under section 13.

Section 7: Handling and Storage.

Precautions for safe handling.
For personal protection, see section 8.
In the application area, smoking, eating, and drinking must be prohibited.
Follow legislation on occupational health and safety.

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Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

Conditions for safe storage, including any incompatibilities.
Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25º C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

Section 8: Exposure Controls/Personal Protection.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values.The product does NOT contain substances with Biological Limit Values.Concentration levels PNEC:

Name	Details	Value
sodium hypochlorite, solution ... % Cl active CAS No: 7681-52-9 EC No: 231-668-3	Fresh water	0,21 (µg/L)
	Marine water	0,042 (µg/L)
	agua (intermittent releases)	0,26 (µg/L)
	STP	0,03 (mg/L)
	oral	11,1 (mg/kg food)

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

Exposure controls.
Measures of a technical nature:
Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	**100 %**			
Uses:	**Solution to bleach clothes**			
Breathing protection:				
PPE:	Filter mask for protection against gases and particles.			
Characteristics:	«CE» marking, category III. The mask must have a wide field of vision and an anatomically designed form in order to be sealed and watertight.			
Maintenance:	Should not be stored in places exposed to high temperatures and damp environments before use. Special attention should be paid to the state of the inhalation and exhalation valves in the face adaptor.			
Observations:	Read carefully the manufacturer's instructions regarding the equipment's use and maintenance. Attach the necessary filters to the equipment according to the specific nature of the risk (Particles and aerosols: P1-P2-P3, Gases and vapours: A-B-E-K-AX), changing them as advised by the manufacturer.			
Filter Type needed:	A2			
Hand protection:				
PPE:	Non-disposable protective gloves against chemicals.			
Characteristics:	«CE» marking, category III. Check the list of chemicals for which the glove has been tested.			
Maintenance:	A schedule for the periodical replacement of gloves should be established in order to guarantee their replacement before pollutants permeate them. The use of contaminated gloves could be more dangerous than not using gloves, since the pollutant can gradually accumulate in the glove's material.			
Observations:	They are to be replaced whenever tears, cracks or deformations are observed or when exterior dirt could reduce their strength.			
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480	Material thickness (mm): 0,35
Eye protection:				
PPE:	Protective goggles with built-in frame.			
Characteristics:	«CE» marking, category II. Eye protector with built-in frame for protection against dust, smoke, fog and vapour.			

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Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.
Skin protection:	
PPE:	Chemical protective clothing
Characteristics:	«CE» marking, category III. Clothing should fit properly. The level of protection must be set according to a test parameter called BT (Breakthrough Time), which indicates how long it takes for the chemical to pass through the material. 
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.
Observations:	The protective clothing's design should facilitate correct positioning, staying in place without moving for the period of use expected, bearing in mind environmental factors as well as any movement or position the user might adopt while carrying out the activity.
PPE:	Anti-static safety footwear against chemicals.
Characteristics:	«CE» marking, category III. Check the list of chemicals against which the footwear is resistant. 
Maintenance:	For correct maintenance of this kind of safety footwear, it is necessary to observe the instructions specified by the manufacturer. The footwear should be replaced as soon as any sign of damage is observed.
Observations:	The footwear should be cleaned regularly and dried when damp, although it should not be placed too close to a source of heat in order to avoid any sharp changes in temperature.

Section 9: Physical and Chemical Properties.

Information on basic physical and chemical properties.
Appearance:Greenish yellow liquid
Colour: Green to yellow
Odour:Penetrating aroma similar to chlorine
Odour threshold:N.A./N.A.
pH:12
Melting point/freezing point:-6 ºC
Initial boiling point or boiling range: N.A./N.A.
Flash point: N.A./N.A.
Evaporation rate: N.A./N.A.
Flammability (solid, gas): N.A./N.A.
Lower Explosive Limit: N.A./N.A.
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density:N.A./N.A.
Relative density:1,065
Solubility:100% water
Liposolubility: N.A./N.A.
Hydrosolubility: N.A./N.A.
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: N.A./N.A.
Decomposition temperature: 40ºC
Viscosity: N.A./N.A.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

Other information.
Explosive properties: N.A./N.A.
Oxidizing properties: N.A./N.A.
Pour point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

Section 10: Stability and Reactivity.

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Reactivity.
The product does not present hazards by their reactivity.

Chemical stability.
Unstable in contact with:
- Acids.

Decomposes starting from 40 º C

Possibility of hazardous reactions.
Neutralization can occur on contact with acids.
A thermal decomposition may occur.

Conditions to avoid.
Avoid the following conditions:
- High temperature.
- Avoid contact with acids.

Incompatible materials.
Avoid the following materials:
- Acids.

Hazardous decomposition products.
Depending on conditions of use, can be generated the following products:
- Corrosive vapors or gases.

Section 11: Toxicological Information.

Information on toxicological effects.
Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Toxicological information about the substances present in the composition.

Name	Acute toxicity			
	Type	Test	Kind	Value
sodium hypochlorite, solution ... % Cl active CAS No: 7681-52-9 EC No: 231-668-3	Oral	LD0 LD50 LD50	Rata Rata Ratón	626 mg/kg bw 1100 mg/kg bw 880 mg/kg
	Dermal	LD50	Conejo	>10000 mg/kg bw
	Inhalation	LC50	Rata	>10.5 mg/L air (1 h)

a) acute toxicity;
Not conclusive data for classification.

b) skin corrosion/irritation;
Based on available data, the classification criteria are not met.

c) serious eye damage/irritation;
Product classified:
Serious eye damage, Category 1: Causes serious eye damage.

d) respiratory or skin sensitisation;
Not conclusive data for classification.

e) germ cell mutagenicity;
Not conclusive data for classification.

f) carcinogenicity;

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Not conclusive data for classification.

g) reproductive toxicity;
Not conclusive data for classification.

h) STOT-single exposure;
Not conclusive data for classification.

i) STOT-repeated exposure;
Not conclusive data for classification.

j) aspiration hazard;
Not conclusive data for classification.

Substances present in the composition listed in the National Toxicology Program (NTP) Report on Carcinogens (RoC):
This product does not contain substances listed in the National Toxicology Program (NTP) Report on Carcinogens (RoC).
Substances present in the composition listed in the International Agency for Research on Cancer (IARC) Monographs:
This product does not contain substances listed in the International Agency for Research on Cancer (IARC) Monographs.

Section 12: Ecological Information.

Ecotoxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
sodium hypochlorite, solution ... % Cl active CAS No: 7681-52-9 EC No: 231-668-3	Fish	LC50 LC50 LC50	Coho salmon Chinook salmon Oncorhynchus mykiss	0.032 mg TRO /L (96 h) > 0.038 < 0.065 mg TRO/L (96 h) >1.65 <2.87 mg/L (72 h)
	Aquatic invertebrates	EC50 LC50	Daphnia magna Baetis harrisoni	141 µg/L (48 h) 11.2 µg/L (24 h)
	Aquatic plants	EC50	Myriophyllum spicatum	>0.1<0.4 mg/L (96 h)

Persistence and degradability.

There is no information available on the degradability of the substances present.
No information is available regarding the degradability of the substances present.No information is available about persistence and degradability of the product.

Bioaccumulative potential.
Information about the bioaccumulation of the substances present.

Name	Bioaccumulation			
	Log Pow	BCF	NOECs	Level
sodium hypochlorite, solution ... % Cl active CAS No: 7681-52-9 EC No: 231-668-3	3,42	-	50 µg/L	Very high

Mobility in soil.
No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.

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Prevent penetration into the ground.

Other adverse effects.
No information is available about other adverse effects for the environment.

Section 13: Disposal Considerations.

Waste treatment methods.
Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.
Follow the provisions of the Resource Conservation and Recovery Act (RCRA) and the Resource Conservation and Recovery Act Information (RCRAInfo) regarding waste management.

Section 14: Transport Information.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

In accordance with DOT

Not Dangerous Good.

Regulations Concerning the International Carriage of Dangerous Goods by Road (ADR)
,
Not Dangerous Good.

Section 15: Regulatory Information.

Safety, health and environmental regulations specific for the product.
VVOC content (p/p): 0 %
VVOC content: 0 g/l
VOC content (p/p): 0 %
VOC content: 0 g/l
SVOC content (p/p): 0 %
SVOC content: 0 g/l
VVOC: Very volatile organic compounds.
VOC: Volatile organic compounds.
SVOC: Semi volatile organic compounds.

Information on the TSCA Inventory (Toxic Substances Control Act) USA:

CAS No	Name	State
7681-52-9	sodium hypochlorite, solution ... % Cl active	Registered

The product is not affected by the procedure established by the Rotterdam Convention, concerning the export and import of dangerous chemicals.

The Superfund Amendments and Reauthorization Act (SARA).
SARA Title III and it sets requirements for local and state emergency planning around hazardous chemicals, the right of the public to access information on chemical hazards in their community, and the reporting responsibilities for facilities that use, store, and / or release hazardous chemicals.

SARA Title III has four provisions (any facility with responsibilities under one section will likely have additional responsibilities under another section, consult SARA for more information):
-Emergency Planning (Sections 301-303)
-Emergency Release Notification (Section 304)
-Hazardous Chemical Storage Reporting Requirements (Section 311-312)
-Toxic Chemical Release Inventory (Section 313)

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Information related to the product:
Section 302, Extremely Hazardous Substances (EHSs)(40 CFR part 355 Appendix A and Appendix B) and section 304, in the event of an accidental chemical release that exceeds minimal Reportable Quantity (RQ):

Not Applicable.

Section 311, Requires facilities with hazardous chemicals in quantities above certain thresholds (consult OSHA for more information) to provide copies of the SDSs for those chemicals to the State Emergency Response Commission (SERC), Local Emergency Planning Committee (LEPC) and local fire department.

Section 312, Companies with chemicals in sufficient quantities to trigger obligations under Section 311 must also submit an annual emergency and hazardous chemical inventory form to the State Emergency Response Commission (SERC), Local Emergency Planning Committee (LEPC) and local fire department

Section 313, requires facilities with 10 or more employees that use certain toxic chemicals in quantities above threshold levels to report annually on the use, release and disposal of those chemicals, substances identified in section 3:

Not Applicable.

Visit the EPA's website for the most up-to-date information on EPCRA and other environmental considerations.

Proposition 65 warnings
Information related to The Safe Drinking Water and Toxic Enforcement Act of 1986, (better known by its original name of Proposition 65):

There are no substances in section 3 present in the list of chemicals that can cause cancer, birth defects or other reproductive harm (Proposition 65 List).

Section 16: Other Information.

Complete text of the hazard statement(s) that appear in section 3:

H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.

Classification codes:

Aquatic Acute 1 : Acute toxicity to the aquatic environment, Category 1
Aquatic Acute 2 : Acute toxicity to the aquatic environment, Category 2
Eye Dam. 1 : Serious eye damage, Category 1
Skin Corr. 1 : Skin Corrosive, Category 1
Skin Corr. 1B : Skin Corrosive, Category 1B

Classification and procedure used to derive the classification for mixtures according to The Hazard Communication Standard (HCS) (29 CFR 1910.1200):

Physical hazards	On basis of test data
Health hazards	Calculation method
Environmental hazards	Calculation method

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

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Abbreviations and acronyms used:
BCF: Bioconcentration factor.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
Log Pow: Logarithm of the partition octanol-water.
NOEC: No observed effect concentration.
PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

Key literature references and sources for data:
The Hazard Communication Standard (HCS) (29 CFR 1910.1200)
United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
https://www.osha.gov
https://www.epa.gov/
http://echa.europa.eu/

The information given in this Safety Data Sheet has been drafted in accordance with The Hazard Communication Standard (HCS) (29 CFR 1910.1200) and United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Employers must ensure that the SDSs are readily accessible to employees for all hazardous chemicals in their workplace.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.

-End of safety data sheet..-