

SALT EXPORT COMPANY



**70 YEARS OF EXCELLENCE
IN WORLD-CLASS
SALT PRODUCTION**



**Gobierno de
México**



Who We Are?

Exportadora de Sal, S.A. de C.V., is a state-owned entity with 100% Mexican capital as of February 2024, whose purpose is to:



Located in Guerrero Negro, Baja California Sur, it is the largest salt facility in the world, with a production capacity above 8.0 million tons annually. It also operates ship loading facilities on Cedros Island, Baja California, with capacity to receive and load ships of up to 180,000 tons.

Vision

To be the world's leading salt facility, providing customers with the best quality salt, reliability and safety, and competitive pricing, through the application of best practices and effective process management, in an environment that guarantees equal opportunities, people development and democratization of productivity.

Mission

To be the fundamental economic player for the Asia-Pacific region and North American East Coast industry, by providing salt with quality, safety, price and timeliness, supported by the dedication of its people, equal opportunities and commitment to its community and environment.





History

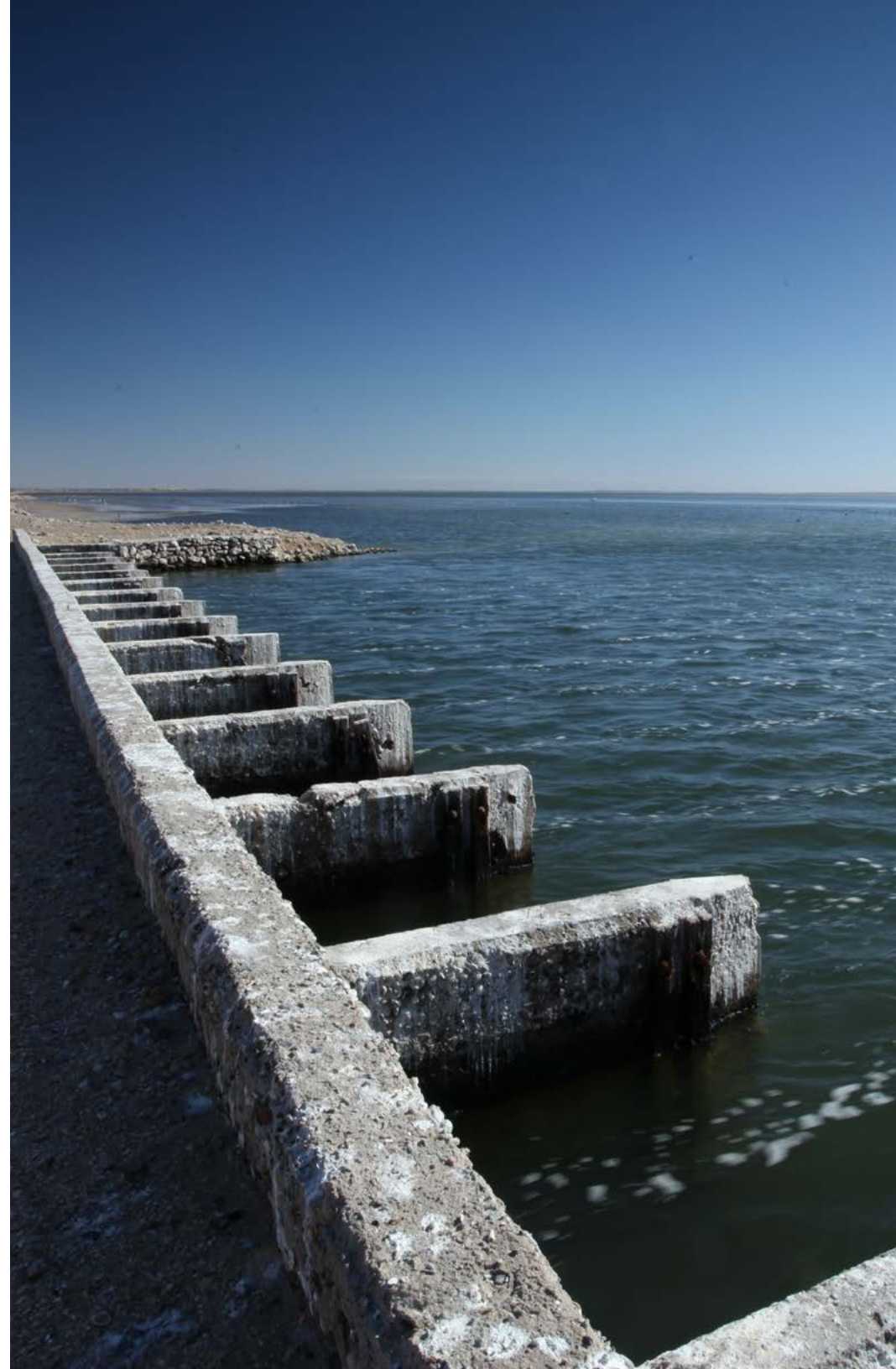
As of February 2024, Exportadora de Sal, S.A. de C.V. (ESSA) will be a state-owned entity with 100% Mexican capital, under the coordination of the Ministry of Economy.

With its complete transition to Mexican ownership, ESSA begins a transformative phase under new management. This new stage returns to Mexico control of the world's largest salt facility, positioning ESSA as a key asset for the country.

Located in Guerrero Negro, Baja California Sur, it covers approximately 33 thousand hectares, making it the largest salt facility in the world.

In line with the objectives of Shared Prosperity, ESSA seeks to promote resource sovereignty, global strategic influence and sustainable economic growth.

Since its inception, ESSA has provided employment to the local community. It currently employs over 1,200 people between the localities of Guerrero Negro and Cedros Island.



Main Objectives

The recent nationalization of ESSA is part of the new shared prosperity vision that President Claudia Sheinbaum's administration seeks to bring development and inclusion to all of Mexico.

ESSA has over 70 years of operation and the world's largest sea salt factory, with quality exceeding 99.7% sodium chloride content.

To achieve this, ESSA focuses on the following central objectives:

1. Resource sovereignty
2. Expansion initiatives and projects
3. Infrastructure and logistics
4. Global competitiveness
5. Social and regional impact



1. Resource Sovereignty

Ensuring Mexico's industrial future and strengthening its economic resilience. This transition allows ESSA to focus on national priorities: reinvesting its profits in the country, generating jobs, and promoting community development, especially in Baja California Sur, where it is a fundamental economic and social pillar.



2. Expansion Initiatives and Projects

ESSA's plan includes diversifying its products and developing international markets, focusing on high-margin segments and value-added salt products to create new business units. These products will serve growing demand in North America, Europe, and Asia, positioning ESSA to reach new markets and maximize profits.



3. Infrastructure and Logistics

ESSA will significantly improve its infrastructure and logistics operations. Priority investments include reengineering loading facilities on Cedros Island to increase shipment flow. Additionally, it will integrate advanced production technologies to increase efficiency and reduce environmental impact.



4. Global Competitiveness

The administration will support ESSA by investing in cutting-edge research and development, fostering innovation to improve extraction technologies, environmental practices, and higher-value product processing.



5. Social and Regional Impact

Aware that ESSA is key to Guerrero Negro and Baja California Sur, in this new phase we reinforce our commitment to regional development. We will focus on creating jobs, training the workforce, and investing in the community. We will expand local job opportunities and contribute to improving the area's health, education, and infrastructure, thus strengthening this region's economy.





PRODUCTS



Types of Salt:

I. Regular salt

DESCRIPTION:

White solid crystal of variable particle size, generally contains calcium and magnesium salt.

APPLICATION:

Chlor-alkali industry, used in the chemical sector to produce chlorine, metallic sodium (Na) PVC.

CHEMICAL COMPOSITION (DRY BASIS W/W)		
COMPONENT	SPECIFICATION	TYPICAL
Sodium Chloride, NaCl	99.60 % min	99.73%
Calcium, Ca	0.06 % max	0.05%
Magnesium, Mg	0.03 % max	0.02%
Sulfate, SO ⁴	0.20 % max	0.16%
Moisture	3.00 % max	2.58%
Water Insolubles	0.03 % max	0.02%
Total Impurities	0.30 % max	0.25%

Types of Salt:

II. Low bromine salt

DESCRIPTION:

White solid crystal of variable particle size; generally contains calcium and magnesium salt.

APPLICATION:

Production of sodium hypochlorite (NaClO) due to its low bromate content, used in drinking water treatment, industrial applications: obtaining chlorine and caustic soda.

CHEMICAL COMPOSITION (DRY BASIS W/W)		
COMPONENT	SPECIFICATION	TYPICAL
Sodium Chloride, NaCl	99.50% min	99.65%
Calcium, Ca	0.17% max	0.09%
Magnesium, Mg	0.04 % max	0.01%
Sulfate, SO ⁴	0.25% max	0.20%
Moisture	3.50% max	2.60%
Water Insolubles	0.04% max	0.01%
Total Impurities	0.50% max	0.28%
Bromide, Br	70.00 ppm max	51.00 ppm





Types of Salt:

III. Fine salt

DESCRIPTION:

Screened cubic crystal with predetermined white and transparent particle size range.

APPLICATION:

Used in the chemical industry where low impurity content is required, such as in the pharmaceutical industry.

CHEMICAL COMPOSITION (DRY BASIS W/W)		
COMPONENT	SPECIFICATION	TYPICAL
Sodium Chloride, NaCl	99.60% min	99.76%
Calcium, Ca	0.07% max	0.05%
Magnesium, Mg	0.02 % max	0.01%
Sulfate, SO ⁴	0.18% max	0.14%
Moisture	3.00% max	2.34%
Water Insolubles	0.03% max	0.01%
Total Impurities	0.30% max	0.22%

Types of Salt:

IV. ASTM salt

DESCRIPTION:

Screened cubic crystal with predetermined white and transparent particle size range.

APPLICATION:

Obtaining chlorine, caustic soda, PVC plastic manufacturing, metal processing, cellulose, and water treatment.

CHEMICAL COMPOSITION (DRY BASIS W/W)		
COMPONENT	SPECIFICATION	TYPICAL
Sodium Chloride, NaCl	99.50 % min	99.71%
Calcium, Ca	0.09 % max	0.06%
Magnesium, Mg	0.05 % max	0.02%
Sulfate, SO ⁴	0.23 % max	0.17%
Moisture	3.50 % max	2.70%
Water Insolubles	0.03 % max	0.02%
Total Impurities	0.40 % max	0.26%





Types of Salt:

V. Coarse salt

DESCRIPTION:

White solid crystal of variable particle size, generally contains calcium and magnesium salt.

APPLICATION:

Regeneration of ion exchange membranes in water softeners, chlorine as sodium hypochlorite.

CHEMICAL COMPOSITION (DRY BASIS W/W)

COMPONENT	SPECIFICATION	TYPICAL
Sodium Chloride, NaCl	96.65 % min	99.78%
Calcium, Ca	0.07 % max	0.05%
Magnesium, Mg	0.02 % max	0.01%
Sulfate, SO ⁴	0.18 % max	0.14%
Moisture	2.50 % max	1.94%
Water Insolubles	0.03 % max	0.01%
Total Impurities	0.30 % max	0.21%

Types of Salt:

VI. ASTM salt with YPS

DESCRIPTION:

Screened cubic crystal with predetermined white and transparent particle size range.

APPLICATION:

Chemical industry, road de-icing.

*ADDITIVES:

YPS anti-caking agent (industrial grade)

CHEMICAL COMPOSITION (DRY BASIS W/W)

COMPONENT	SPECIFICATION	TYPICAL
Sodium Chloride, NaCl	99.50 % min	99.71%
Calcium, Ca	0.09 % max	0.06%
Magnesium, Mg	0.05 % max	0.02%
Sulfate, SO ⁴	0.23 % max	0.17%
Moisture	3.50 % max	2.70%
Water Insolubles	0.03 % max	0.02%
Total Impurities	0.40 % max	0.26%





Types of Brine:

Residual Brine 3.55%Mg

This brine is obtained from natural salt works that comes from the last stage of the salt production system with a minimum concentration of 30%.

CHEMICAL COMPOSITION (DRY BASIS W/W)		
COMPONENT	TYPICAL	RANGE
Sodium chloride	11.97	13.93 – 9.21
Magnesium chloride	8.96	7.57 – 10.67
Magnesium sulfate	6.25	5.29 – 7.71
Potassium chloride	1.91	1.85 – 2.48
Sodium bromide	0.23	0.19 – 0.28
Calcium sulfate	0	0.04 – 0.00
Bound water	70.68	71.13 – 69.65

Types of Brine:

Residual Brine 7.5 to 8.0% Mg

This brine is a saline solution produced especially for the table salt process. This solution is generated under various stages of solar evaporation until reaching maximum concentration under Guerrero Negro's climatic conditions. The sulfate content is reduced to the minimum possible under these climatic conditions.

CHEMICAL COMPOSITION (DRY BASIS W/W)		
COMPONENT	TYPICAL	RANGE
Sodium chloride	0.35	0.82 – 0.57
Magnesium chloride	28.77	27.58 – 29.23
Magnesium sulfate	4.97	4.75 – 5.14
Potassium chloride	0.67	0.65 – 0.76
Sodium bromide	0.55	0.52 – 0.56
Bound water, as H ² O	64.69	65.69 – 63.74



Production and Logistics Process.

Industrial salt



CONCENTRATION STAGE

Seawater evaporates in open air through the action of sun and wind.



CRYSTALLIZATION STAGE

In this stage, sodium chloride salt crystallizes in saturated brine for harvesting.



HARVESTING AND WASHING

The harvested salt is washed with brine and seawater.



RESIDUAL BRINE

This is the residue generated by the salt production process.



LOADING AND TRANSPORT STAGE

Barges are loaded and transported to the Export Port (Cedros Island).



CLASSIFICATION AND STACKING

According to crystal size and quality.

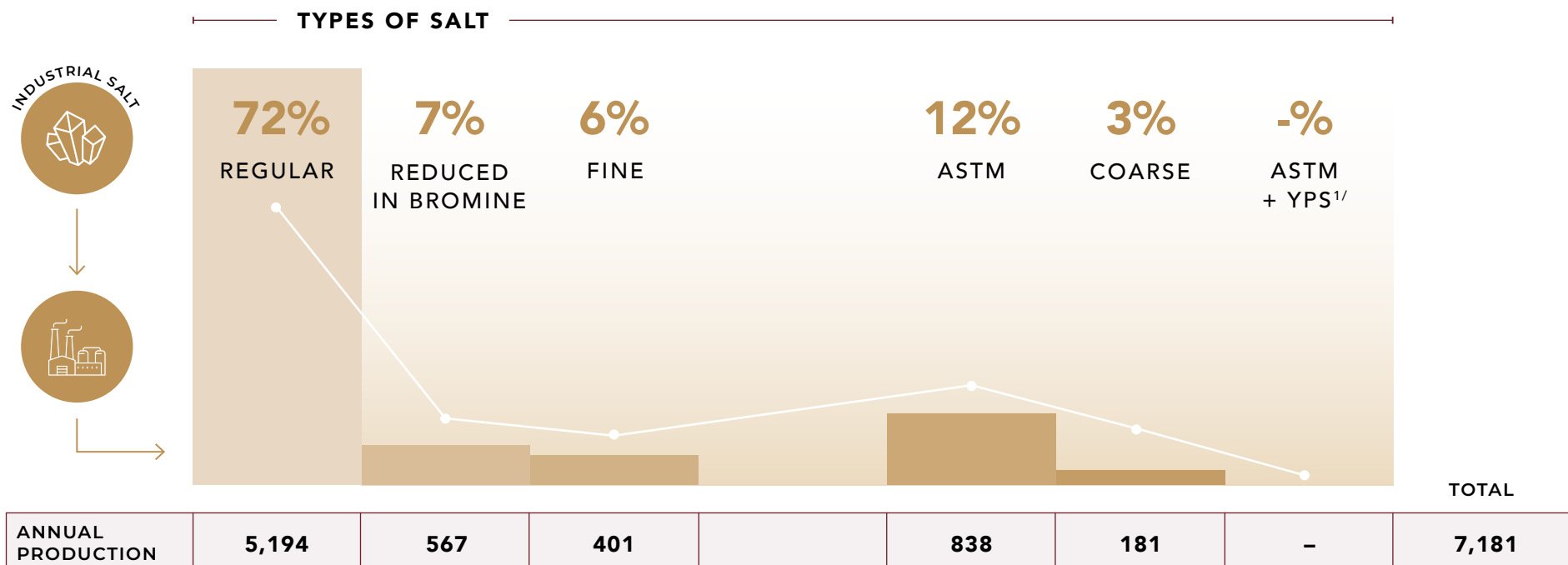


SHIP LOADING

Ship loading process in Cedros Island, Morro Redondo, BC



Industrial Salt and Table Salt Production. Measured in thousands of metric tons



^{1/} YPS ANTI-CAKING AGENT (ADDITIVE)



Salt Products



CHARACTERISTICS

SALT, NaCl % ^{1/}	99.72	99.71	99.75	99.74	99.80	99.76
USE	Chloralkali Industry	Chloralkali Industry	Chemical Industry (Sodium Carbonate)	Road De-icing	Ind. Water Softening	Road De-icing
ESSA'S SALES STRUCTURE	78.3%	8.5%	6.1%	5.1%	1.9%	0.1%

1/ 2023 QUALITY AVERAGE

2/ 2023 SALES STRUCTURE

3/ YPS ANTI-CAKING SUBSTANCE

NOTE: NO PRODUCT IS SUITABLE FOR HUMAN CONSUMPTION OR THE FOOD INDUSTRY AND ITS DERIVATIVES.
SOURCE: INFORMATION PROVIDED BY ESSA.



Salt Value Chain

PRODUCTION PROCESS

Concentration



Crystallization



Harvesting and washing

MAIN USES

Industrial Salt

Road De-icing Salt

Chlorine

Sodium

MAIN PRODUCTS

- Pulp and paper
- Inorganic chemicals
- Organic chemical industry
 - Vinyl chloride (PVC)
 - Dichloroethane
 - Glycerin
 - Solvents
 - Glycols

- Glass manufacturing
- Galvanizing process
- Sodium hydroxide (caustic soda)
 - Chemical industry
 - Alumina
 - Gas cleaning
 - Propylene oxide
 - Polycarbonate resins
 - Soaps and detergents
 - Paper industry
 - Drilling and extraction fluids for oil and gas

NACL CONCENTRATION HIGHER THAN 99.70%



Location

Located in Guerrero Negro, Baja California Sur, it covers approximately 33 thousand hectares, making it the largest salt facility in the world.

ESSA supplies countries such as China, Taiwan, Japan, Korea, United States, Canada, and Costa Rica, among others.

