

NEPLOS #500 Series

**ELECTROLESS
POLISHING BRIGHTENER
FOR
AUSTENITIC STAINLESS STEEL**

NEPLOS

YOKOHAMA NEPLOS Co., LTD.

YOKOHAMA JAPAN

Chemical Polishing Brightener
for Austenitic Stainless Steel

NEPLOS #500 Series

LINEUP

NEPLOS New #505

For
**Austenitic
Stainless Steel**

i.e. SUS301/303/304

NEPLOS #507N

For
**Nickel-containing
Stainless Steel**

i.e. SUS316 and SUS316-L

NEPLOS #505SH

For
**Stainless Steel
coated with Oxide Film**

i.e. spring materials,
thin/fine materials etc.

Others

YOKOHAMA NEPLOS provides various chemical products in addition to the products shown in this catalog.

Please feel free to ask for more information.

We can introduce NEPLOS process solutions most-suitable for your purpose!

NEPLOS #500 series are versatile chemical polishing brightener for austenitic stainless steel etc.

The processing method, known as the "NEPLOS Process," enables volume processing without the need for the facilities and the proficiency required by electropolishing and buff polishing, and provides an easy way to achieve mirror-like luster on complex-shaped products.

It has gained popularity both within and outside the country, and is now widely used in various fields including precision instruments, medical instruments, nuclear-related equipment, telecommunication devices, optical devices, and kitchenware.

FEATURES and BENEFIT

Very suitable for complex-shaped products

Thin/ fine/ small products, products without hole for hanging, inner surface of pipes, irregular surface...
Such structures are beyond capability of common polishing method (i.e. electrolytic polishing etc.).

NEPLOS polishing solutions are very suitable for those complex-shaped products.

If NEPLOS polishing solutions would penetrate, it is possible to treat uniformly whole surface of such complex-shaped products.



Low-Cost (Volume processing)

NEPLOS process can polish hundreds or tens of thousands pieces uniformly and simultaneously.
Volume processing can improve efficiency of your work, and lead to cost reduction.

High Cleanliness / High Quality

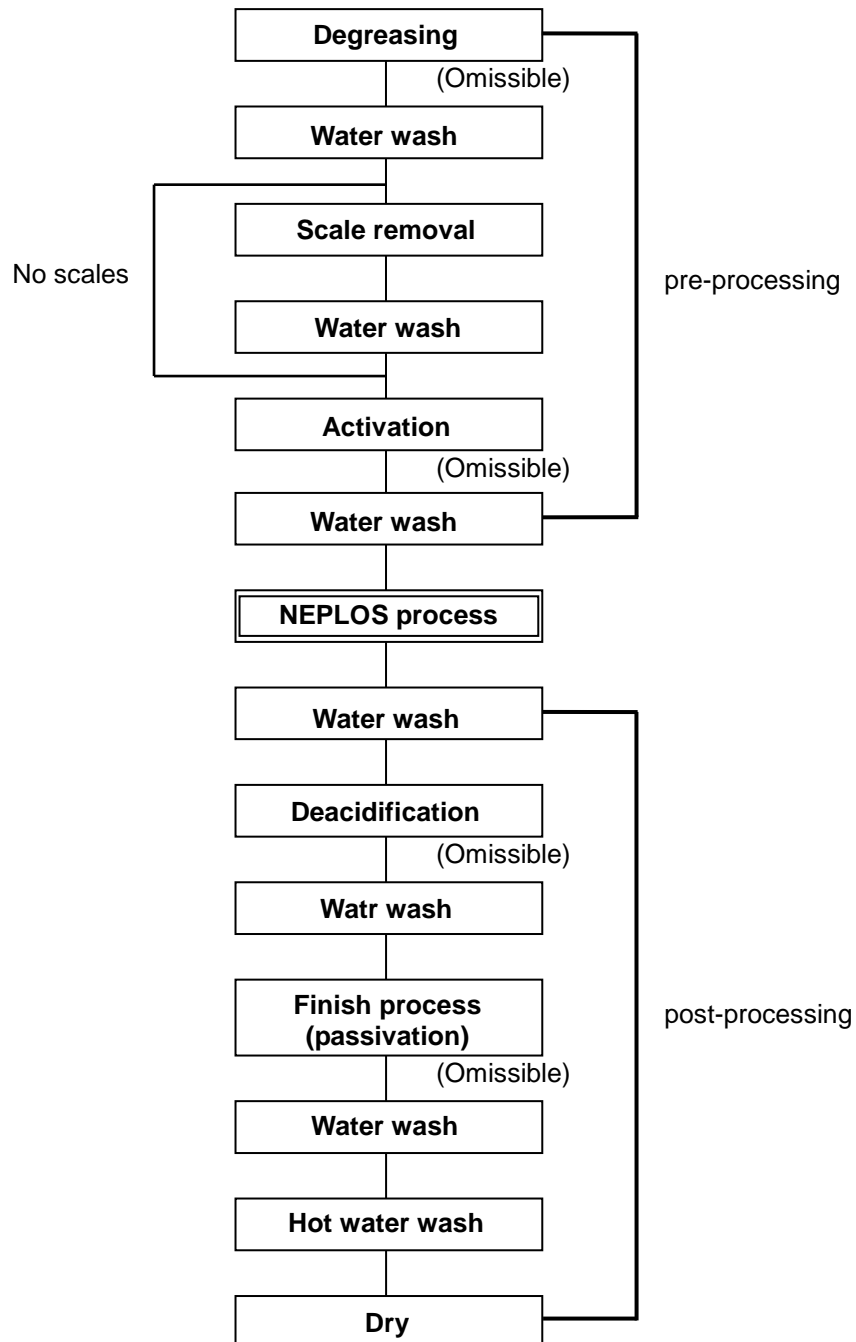
The stainless steel surfaces after NEPLOS process become very flat, and are prevented from adhesion of any contamination.
Such clean surfaces are most appropriate for medical instruments, food machinery, precision instruments and etc.

Safe

No hydrofluoric acid and phosphorous compounds are contained.
Our products produce almost no gas and odor during work.

**Be sure to read the MSDS
(Material Safety Data Sheet)
before using this product.**

NEPLOS PROCESS (Process sketch)



Process Diagram

NEPLOS #500 Series

1. Pre-Processing

Completely remove any lubricants, abrasives, scales from quenching/welding, rust and etc. from the products.

2. Mixing Ratio for the Polishing Solutions

The mixing ratio for 10ℓ of the polishing solutions is as of the following.

Mix the solution into a container that has a capacity of twice the intended solution volume.

	Solution	Mixing Ratio	Intended Purpose
NEPLOS New #505 Process	NEPLOS New #505	0.5	301, 303, 304 etc.
	New Basic Solution	1.5	
	Water	8.0	
NEPLOS #507N Process	NEPLOS #507N	0.75	316L, Nickel, Inconel etc.
	Basic Solution	1.75	
	Water	7.5	
NEPLOS #505SH Process	NEPLOS #505SH	1.0	Spring material, Rolled steel etc.
	Basic Solution	2.0	
	Water	7.0	

3. Containers

Acid and heat resistant containers made from materials such as chemical porcelain, titanium, Pyrex, china ware and ceramics.

4. Polishing Process

- 1) Boil the polishing solutions at over 96°C. (The solution should be maintained at 96°C.)
- 2) While gently stirring the boiling polishing solutions, slowly immerse the product into the solution. Remove the product from the solution after 3 minutes, then rinse thoroughly in running water or plentiful still water.

5. Post-processing (Deacidification and Finish Process)

If rinsing with water is insufficient to completely remove the polishing solutions, deacidification is necessary. After the polishing, chrome/iron ratio is increased and corrosion resistance is improved. In addition, finish process is recommended for sustained luster and improved corrosion resistance.

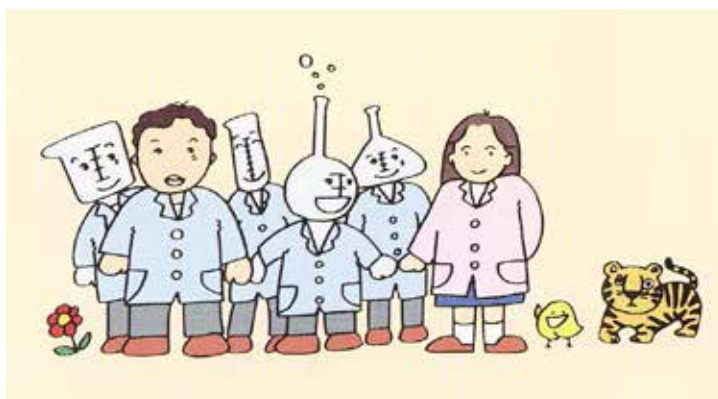
Caution

1. Be sure to read the MSDS (Material Safety Data Sheet) before using these products.
2. Attempting to process too many products simultaneously may cause the polishing solutions to boil over.
3. When polishing complex-shaped products or many small products, adequately move the basket containing the product(s).
4. Early replacement of the polishing solutions is recommended to avoid the loss and irregularity of luster.
5. Local ventilation must be provided to avoid the inhalation of gas mists while polishing.
6. Wear a gas mask, safety goggles, rubber gloves, a rubber apron, and rubber boots.
7. Keep away from direct sunlight. Store sealed in a locked, cool, dark, and well-ventilated area.
8. If these products and polishing solutions gets into the eye, rinse with running water for at least 15 minutes, and consult an optician. Upon contact with the skin, wash off thoroughly with soap and water.
9. These products require disposal facilities for effluent water and gas.
10. The data shown in this catalog does not provide any guarantees of matching of solution with material.
11. If you have any questions or concerns, please contact with us.

* Specifications subject to change without notice for improvement.

Business Profile

- **Manufacturing & sales of NEPLOS products**
 - 1) Chemical polishing brighteners for stainless steel
 - 2) High-performance surface treatment chemicals
 - 3) All chemical/industrial agents
 - **Laboratory instruments/appliances/equipments**
(beakers, flasks, laboratory glassware, etc.)
 - **Pollution prevention equipments**
Water/air/noise/dust
 - **Environmental health maintenance services**
Building maintenance, sanitation management at swimming facilities, etc.
 - **Disposal of industrial waste subject to special control**
- * *Technological assistance, information-sharing, and collaborative research based on cross-industrial cooperation.*



Chemistry is our friend...

NEPLOS

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