

**SX Metal Treatments**

**SX501 / SX503 / SX520 / SX533 / SX579**

The ONECHOICE® SX Metal Treatments are specifically designed to clean, condition and fortify the corrosion resistance and adhesion of metal substrates.



**Features & Benefits**

- Proven technology
- Compatible with most metal substrates
- Convenient packaging
- Higher productivity
- Lower finishing costs

**Compatible Surfaces**

- Iron (no cast iron)
- Steel
- Galvanized
- Galvaneal
- Aluminum
- Brass
- Copper
- Chrome
- Nickel
- Stainless Steel

**Compatible Products**

DPLF Epoxy Primers  
DPLV 2.1 Epoxy Primers

Followed by any PPG topcoat system

### **SX533 Aluminum Cleaner**

SX533 is a phosphoric acid based cleaner, brightener and prepaint conditioner for aluminum substrates. It is used to deep clean and brighten an aluminum surface prior to welding & painting, or as the first step in a two part process to prepare the surface for a subsequent application of chemical conditioner SX503. SX533 is clear in color.

---

### **SX503 Aluminum Conditioner**

SX503 is a chromic acid based conditioner that will form a chrome conversion layer on aluminum and its alloys when applied after a SX533 cleaning step. The conversion coating formed by SX503 is gold to tan and becomes a part of the aluminum surface. SX503 is medium orange in color and may darken over time.

---

### **SX579 Metal Cleaner**

SX579 is a multi-purpose phosphoric acid based cleaner and prepaint conditioner for most metals. It can be used to deep clean a metal surface prior to paint or to prepare a surface for a subsequent chemical conversion coating (when followed by SX520 or SX501). SX579 is blue in color and could lighten over time.

---

### **SX520 Metal Conditioner**

SX520 is a phosphoric acid based conditioner that will deposit a uniform layer of zinc phosphate on properly prepared galvanized and steel surfaces. SX520 is intended as the second step in a two step process, following SX579 application. SX520 is pale green in color and may turn darker over time.

---

### **SX501 Aluminum Conditioner**

SX501 is also chromic acid based but the conversion layer formed is clear in color, also intended to be applied after the SX579 cleaning step. It is used when it is desirable to retain the aluminum substrate's silver white finish, either unpainted or with a clear coating applied over the treated metal. Do *not* dilute SX501 with hot water or a change in color may occur of the diluted mixture and the resulting chemical conversion layer. The resulting color will be similar to SX503. SX501 is light orange in color.

---

### **Notes:**

- If the intended coating process includes spray applying **Wash Primers** (also known as etch primers or pretreatment coatings) to properly sanded and cleaned bare metal substrates, SX Metal Treatments in any combination are not required or advisable.
  - SX Metal Treatments are not recommended or advisable on sandblasted metal.
  - Consult SDS for hazardous ingredient content. Run-off of the products contain acid and may be considered hazardous. SX501 and SX503 contain hexavalent chromium residues, will always be considered hazardous. Run-off residues may not be allowed in local sewer discharge, may have to be captured and special disposal steps required. Consult local Publicly Owned Treatment Works (POTW) / sewer authority to determine correct disposal procedures.
  - Read the printed instructions on the container prior to use.
  - For optimal results keep metal surface saturated/wet with SX metal treatment until rinse.
  - For optimal results with Metal Cleaner SX579 or Aluminum Cleaner SX533, apply chemicals with acid resistant brush or synthetic abrasive pad.
  - When treating galvanized or galvaneal metal, always use an abrasive pad.
-

**Directions for Use**

**Application:**

- Use the steps below to condition and fortify the corrosion resistance and adhesion of metal substrates.
- Abrade the bare metal surface, remove surface rust and remove all contaminants with the appropriate PPG cleaner before proceeding to Step 1.
- For optimum results keep metal surfaces saturated / wet with SX metal treatments until rinse.

<u>Metal</u>	<u>Step #1</u>	<u>Step #2</u>
Iron (no cast iron) Steel Galvanized Galvaneal	<ul style="list-style-type: none"> <li>• Apply Metal Cleaner (SX579) mixed 1:2 with water using an acid resistant brush or synthetic abrasive pad.</li> <li>• Allow to react 2-3 minutes, then rinse with cool clean water. Water should sheet over entire surface. For Galvanized or Galvaneal, use abrasive pad while applying</li> </ul>	<ul style="list-style-type: none"> <li>• Apply Metal Conditioner (SX520) straight from the container.</li> <li>• Allow to react 1-2 minutes, then rinse well with cool clean water and dry. For Galvanized or Galvaneal use an abrasive pad.</li> <li>• Prime with DPLF or DPLV Epoxy Primer within the same day.</li> </ul>
Aluminum: to be painted	<ul style="list-style-type: none"> <li>• Apply Aluminum Cleaner (SX533) mixed 1:3 with water using an acid resistant brush or synthetic abrasive pad.</li> <li>• Allow to react 2-3 minutes and rinse well with cool clean water. Rinse water should sheet over entire surface.</li> </ul>	For painted finish: <ul style="list-style-type: none"> <li>• Apply Aluminum Conditioner (SX503) straight from the container.</li> <li>• Allow to react 1-3 minutes until a golden or tan color appears.</li> <li>• Rinse well with cool clean water and dry.</li> <li>• Prime with DPLF or DPLV Epoxy Primer within the same day.</li> </ul>
Aluminum: to be clearcoated Brass Copper	<ul style="list-style-type: none"> <li>• Apply Metal Cleaner (SX579) mixed 1:10 with cold water. Check a small spot first to be sure it does not discolor aluminum. Work from the bottom up.</li> <li>• Rinse with cool clean water.</li> </ul>	For clear finish: <ul style="list-style-type: none"> <li>• Apply aluminum Conditioner (SX501) mixed 1:1 with cold water.</li> <li>• Allow to react 1-3 minutes</li> <li>• Rinse well using cool clean water and dry. Do not overapply, may yellow metal surface.</li> <li>• Apply appropriate clearcoat (DAU75) where VOC rules allow.</li> </ul>
Chrome Nickel Stainless Steel	<ul style="list-style-type: none"> <li>• Apply Aluminum Cleaner (SX533) and scour with an abrasive pad.</li> <li>• Rinse well with water and dry.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply DPLF or DPLV Epoxy Primer</li> </ul>
Magnesium	No Recommendation	
Anodized Aluminum	No Recommendation	
Lead	<ul style="list-style-type: none"> <li>• Wash with a 1:1:1 (ammonia : alcohol : water) mixture.</li> <li>• Rinse with cool clean water and dry.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply DPLF or DPLV Epoxy Primer</li> </ul>

**Technical Data:**

<b>Product:</b>	<b>Blend Ratio:</b>	<b>VOC Actual (or VOC Content)</b>	<b>VOC Regulatory (or VOC Less Water Less Exempts)</b>
<b>SX501</b>	1 : 1 with water	0.0 lbs./ US Gal. (0 g/L)	0.0 lbs./ US Gal. (0 g/L)
<b>SX503</b>	As is	0.0 lbs./ US Gal. (0 g/L)	0.0 lbs./ US Gal. (0 g/L)
<b>SX520</b>	As is	0.0 lbs./ US Gal. (0 g/L)	0.0 lbs./ US Gal. (0 g/L)
<b>SX533</b>	1 : 3 with water	0.23 lbs./ US Gal. (28 g/L)	4.20 lbs./ US Gal. (503 g/L)
<b>SX579</b>	1 : 2 with water	0.64 lbs./ US Gal. (77 g/L)	4.43 lbs./ US Gal. (531 g/L)
<b>SX579</b>	1 : 10 with water	0.17 lbs./ US Gal. (20 g/L)	4.43 lbs./ US Gal. (531 g/L)

---

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

---

EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION (412) 434-4515; IN CANADA (514) 645-1320

Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the public. Products mentioned may be hazardous and should only be used according to directions, while observing precautions and warning statements listed on label. Statements and methods described are based upon the best information and practices known to PPG Industries. Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results, or fitness for any intended use, nor does PPG Industries warrant freedom from patent infringement in the use of any formula or process set forth herein.

## **PPG Industries**

**Bringing innovation to the surface.™**

PPG Industries  
19699 Progress Drive  
Strongsville, OH 44149

PPG Canada Inc.  
2301 Royal Windsor Drive Unit #6  
Mississauga, Ontario Canada L5J 1K5

The PPG Logo, OneChoice, and *Bringing innovation to the surface* are trademarks of PPG Industries Ohio, Inc.