



## SWHTR® – Dipping Liquid

### STAINLESS WELD HEAT TINT REMOVER

#### 2-in-1 Pickling & Passivation – Free of Hydrofluoric Acid (HF)

#### PRODUCT DESCRIPTION

**SWHTR® (Stainless Weld Heat Tint Remover – LIQUID formula)** is a high-performance, patented 2-in-1 product for use in dip and immersion tanks that pickles and promotes passivation on all grades of stainless steel. In 1-step, it quickly and effectively removes heat tint discoloration and free-iron contamination from stainless steel surface and encourages homogenous passivation.

Unlike traditional, toxic pickling products, the **SWHTR Liquid** formula uses “Smart Chemical Technology” that is **FREE of HYDROFLUORIC ACID (HF)** and improves safety for workers and the environment.

**SWHTR® Liquid** is safe to be used on surfaces for extended / long- term dwell times without pitting, discoloring, corroding or damaging the healthy metal. This advanced Liquid formula is **RECHARGABLE** and can be reused multiple times.

**SWHTR® Liquid** replaces dangerous hydrofluoric acid-based pickling products and ensures that heat tint discoloration is removed and passivation is achieved in and on complicated items and parts – such as pipes, tanks and vessels. Both the outside and the inside of parts are effectively treated, saving time, money and reducing the potential for failures when in-service. It also eliminates the need for mechanical methods which can release dangerous hexavalent chrome particles into the air.

**SWHTR® Liquid** is the best choice to ensure safe and effective pickling and proper passivation every time to improve weld zone corrosion resistance and avoid in-service weld zone failures. **It comes ready to use and complies with ASTM A380 “Standard Practice for Cleaning, Descaling and Passivating of Stainless Steel Parts, Equipment, and Systems”**

#### FEATURES & BENEFITS

- ✓ High-performance, 2-in-1 pickling and passivation – on all grades of stainless steel.
- ✓ Removes heat tint discoloration & free-iron contamination
- ✓ Free of Hydrofluoric acid (HF)!
- ✓ Effectively pickles & passivates both the inside and the outside of parts
- ✓ Water-based & fully-biodegradable product
- ✓ Safer alternative to hydrofluoric acid (HF) based products
- ✓ No VOC's, no HAPS, no TAPS
- ✓ As fast and effective as traditional, dangerous methods

- ✓ Easy to use & RECHARGABLE (can be used multiple times).
- ✓ Extended dwell times will not damage healthy metal.
- ✓ Best choice for health and safety - reduces liability.

**SWHTR<sup>®</sup>** (Stainless Steel Heat Tint Remover) is available in two formulas (paste & liquid).

**SWHTR<sup>®</sup> (Liquid)** is only used in large dip tanks for immersion applications and for system flushing applications. **SWHTR<sup>®</sup> (Liquid)** is **RECHARGABLE** and can be used multiple times. It is an ideal replacement for traditional acid baths and acid washes.

**SWHTR<sup>®</sup> EnviroPaste (Paste)** in 305mL (10 oz) Caulking Tube or 1 and 5 gallon pails. It is applied using the caulking tube, or by brush or spray application – depending on quantity and project area. It is used for in-situ application on vertical, horizontal, overhead and large surface area applications. Please refer to separate TDS for use and application instructions.

## FOR USE ON

**SWHTR<sup>®</sup> Liquid** is safe and effective on all grades of stainless steel.

- Austenitic Stainless Steel
- Inconel<sup>™</sup> Alloys
- Monel<sup>™</sup> Alloys
- Hastelloy<sup>™</sup> Alloys
- Duplex Stainless Steel
- Super-Duplex Stainless Steel

It is for use in dipping and immersion tanks. It can also be pumped into and cycled through pipes, tanks, vessels and heat exchangers to treat internal surfaces.

It is NOT for use by spray or brush on surfaces. Refer to **SWHTR<sup>®</sup> EnviroPaste** TDS for these applications.

## COVERAGE

**SWHTR<sup>®</sup> EnviroPaste** comes ready to use.

DO NOT DILUTE. PROTECT FROM TEMPERATURE EXTREMES. Do not allow it to freeze. Do not allow it to sit in direct sun or heat.

## DIP TANK SPECIFICATIONS

Only use synthetic, HDPE tanks and drums for dipping and immersion applications.

Contact the Manufacture for recommended instructions for large dip tank and flushing applications.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

In well vented areas, use properly fitted splash goggles and nitrile (chemical resistant) gloves are recommended and should be used at all times when using this product.

A face shield can also be used as added protection. If you are working in a poorly ventilated area, a respirator is required using either a half mask with acid vapor cartridges and splash proof goggles and/or a face shield or a full face respirator. Wear proper clothing to avoid any direct contact to skin such as long sleeves or coveralls.

Refer to Health & Safety Section (below) and SDS for additional instructions.

## SITE CONDITIONS

Use and store product at temperatures between 50-77°F (10-25°C); never in direct sun. Protect surrounding areas from dripping and spills. Protect the product in dipping tanks from contact or contamination by traffic and/or environmental factors (i.e. rain). Use only outdoors or in well-ventilated areas.

## SURFACE PREPARATION & CLEANING

First, preclean cool surfaces to remove all oils, grease, dirt and other contaminants, using Protocol's **DEEP CLEAN XTREME** or other alkaline cleaner according to ASTM A380 Standard for Descaling, Pickling and Passivation of Stainless Steel. This is imperative when using an oil-based anti-spatter product in welding operations.

Surfaces should be smooth and free of weld spatter, loose debris and any contaminating material.

## APPLICATION

**SWHTR® Liquid** arrives ready to use and **MUST NOT BE DILUTED WITH WATER** or **MIXED WITH OTHER PRODUCTS**. Testing in a small area is suggested to determine exact dwell time.

Allow hot, newly welded surfaces to cool completely before application.

**SWHTR® Liquid** is designed for dip / immersion tanks and flushing **ONLY**. It is not designed for spray application as it will not cling to the surface. Refer to separate **SWHTR® EnviroPaste** TDS for vertical, spray or brush-on applications.

## DWELL TIME & TREATMENT

Always perform a test patch to determine adequate dwell time. Normal working dwell time (in temperatures above freezing) is between 45 and 120 minutes.

Dwell time will vary based on the amount of heat tint discoloration on the surface, user expectations, welding parameters, shielding gas and base metal variables. Certain applications may require extended dwell time. Warmer temperatures will increase working speed and decrease dwell time.

Once the items are removed from the Liquid, wipe any surface residuals or discoloration with a blue or green Scotch-brite pad if needed. **SWHTR® Liquid** pickles and promotes passivation in 1-step. When the weld or base metal is effectively pickled (cleaned), no further steps are required.

**SWHTR® Liquid** is RECHARGABLE. After treatment(s) the remaining Liquid may be “recharged” by adding an additional 10% of the Liquid to the tank.

## REMOVAL

After the item is removed from **SWHTR® Liquid**, rinse the treated area or part with water or pressure washer. Small areas can be cleaned by wiping with wet cloth. NEVER USE METAL or WIRE BRUSH FOR REMOVAL as cross contamination to pickled area can occur.

Always filter rinse water to remove metals and capture filtered water with holding tanks before disposal in accordance with local regulations.

## HANDLING & DISPOSAL

Before disposal, always verify that disposal method complies with applicable regulatory requirements. **SWHTR® Liquid** does not require any special handling – always wash thoroughly after handling.

The product itself is biodegradable, however once applied, the product will naturally be contaminated with heavy metals so disposal must always follow and comply with applicable regulatory requirements.

## STORAGE

**SWHTR® Liquid** should be stored in a well-ventilated area. Keep container tightly closed prevent spillage and contamination. Store locked up. Store and transport between 50-77°F (10-25°C); never in direct sunlight. Do not allow it to freeze. DO NOT DILUTE.

Always read and follow the Safety Data Sheet (SDS) before use.

## HEALTH & SAFETY

Avoid skin contact – wear appropriate clothing to avoid direct contact with skin. Nitrile (chemical resistant) gloves for hands, coveralls or comparable clothing for body and site appropriate footwear. If on contamination on skin or hair occurs – remove/take off immediately all contaminated clothing. Rinse skin with water / shower.

Avoid eye contact – it is mandatory to always wear appropriate chemical resistant eye protection. Splash proof goggles are recommended. If in eyes – rinse cautiously with water for several minutes. Remove contact lenses, if possible. Continue rinsing. Immediately call the poison center / doctor.

Use in areas with adequate ventilation. If the area has poor ventilation, proper air flow must be added. If the area is a confined space, follow all confined space rules and regulations as well as use the mandatory proper PPE.

Do not swallow, inhale, or ingest. If ingestion occurs, do not induce vomiting - seek medical advice. If inhaled move person to fresh air and keep comfortable for breathing. Get medical attention if you feel unwell. Do not eat, drink or smoke when using this product.

Refer to SDS for additional information including safe handling and first aid.

## PHYSICAL PROPERTIES

	SWHTR <sup>®</sup> Liquid	
Color:	Clear liquid	
pH:	Acidic	
Odor:	Slight	
VOC's:	None	
Flammability:	Not Flammable	
Solubility in Water:	Miscible	
Viscosity:	Approx. 1 Cps	
Application Temperature	10°C-32°C (50°F-90°F)	

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