

Frequently Asked Questions :

Pickling & Passivation of STAINLESS STEEL 304 and 316 L Fabrications :

How do I know which SS Pickling and Passivation product to use?

Please contact us for assistance in selecting a BRITOSS RANGE product that is best for your application. Primary considerations are the grades of stainless steel being used and the size of the parts. Most Commonly used products for Pickling and Passivation of 304 and 316L Grade SS Fabrications are BRITOSS Normal Range. For all other grades the product formulation shall have to be developed.

MOST IMPORTANT Points to be Noted before undertaking PICKLING and PASSIVATION of SS 304 316L :

Perform the process in areas open to sky or well VENTILATED AREAS. Nitrous OXIDE & Hydrofluoric Acid Gases generated are toxic, cause SEVERE IRRITATION to THROAT and respiratory Tract . Operators MUST AVOID DIRECT BREATHING of Acidic Vapours. NEVER EVER USE ANY PRODUCTS FORMULATED with SULPHURIC ACID / HYDROCHLORIC ACID . These Acids if used for Cleaning of Weld Joints, or for Pickling & Passivation of ANY GRADE OF STEEL, will lead to POST CLEANING CORROSION WITHIN 15 Days to 3 Months. More-over both these acids will also cause HYDREGEN IMBRITTEMENT & will create POROSITY on SS Surface. This will lead to RUSTING OF SS Fabrications. Rusting is a SUB-SURFACE PHENOMENON will lead to CREEPING CORROSION. Once the Metal or Fabrication starts rusting due to these Factors, Recovery becomes impossible/most expensive.

PRE-CLEANING : DEGREASING : Removal of Oil and Grease from the surface is MOST ESSENTIAL before the Pickling & Passivation is started: Even traces of Oil, Grease or any Non Permeable foreign matters will retard the cleaning and Pickling action. We offer CLENSOL SS for pre-cleaning & Degreasing:

Can outdoors on-site passivation be performed during the winter months?

BRITOSS GEL and BRITOSS SPRAY are used at ROOM Temperature. These contain **IONIZABLE ACIDS** and hence not recommended to be used in Rainy seasons , in open areas. Room temperature or higher is preferred, but outdoor passivation in cold seasons may be done if the exposure time is extended beyond the recommended timings, due to slower pace of chemical action in Damp weathers.

Can I touch, handle and use BRITOSS RANGE Products by hand ?

NO . Britoss Range Products contain STRONG Acids & Oxidizing Chemicals. These Products must be handled after wearing ALL THE SAFETY Equipments.

Which tools / means of application are recommended for use BRITOSS RANGE Products during cleaning ?

Use any PLASTIC SPRAY BOTTLE available for Spraying Britoss Spray. Use face-shield during the Spray. For application by Brushing , use 1" or 3" brush with NYLON Bristles. Always Dip the brush in water : this will increase the utility performance and life of the brush.

Are the Britoss Range Products Water Soluble & Water Washable : ?

YES . All Britoss Range products are completely Water Washable.

Any dilutions recommended for BRITOSS RANGE Products ?

BRITOSS RANGE Products are to be used **AS SUPPLIED WITOUT ANY DILUTIONS.**

Are BRITOSS RANGE PRODUCTS RoHS Compliant ?

Yes. All BRITOSS RANGE PRODUCTS are **RoHS** Compliant. & Free from Halides & Sulphur.

TO which Standards are BRITOSS RANGE PRODUCTS Confirming ?

BRITOSS RANGE PRODUCTS CONFIRM TO THE REQUIREMENTS OF ASTM A 380 & IS 10117

Do we need a ventilation system to use BRITOSS Range products in our plant ?

BRITOSS RANGE CHEMICALS are ACIDIC & Fuming in nature. The use of these chemicals SHALL BE DONE in OPEN AREA or highly ventilated areas . Do not use these products in HOT SUN LIGHT or Beyond 45 °C

WHAT IS THE RECOMMENDED SHELF LIFE OF BRITOSS RANGE PRODUCTS ? :

For **BEST And OPTIMUM Results and performance , USE BRITOSS PRODUCTS within SIX MONTHS** from the Time of Purchase. Keep the Containers **TIGHTLY CLOSED** with Inner and OUTER Lids . Store in a Cool & Dry Place .

WHAT ARE THE PRECAUTIONS TO BE TAKEN ?

BRITOSS RANGE PRODUCTS Are HIGHLY ACIDIC . Avoid Body Contacts . Avoid Spillage on Floor . The Products will attack TILES, STONE, Marble, Granite, Glass, Wood, Laminations and Concrete & Cement Floorings. Wash the Spill Area with plenty of running water. **Operators MUST USE ALL THE SAFETY GEARS** (viz: Face Shield, Goggles , Face Mask, Respiratory Filters, Rubber Apron Full size, Hand-Gloves , Gum-Boots Etc), while working with these products. Call for Medical attention in case of prolonged exposure to FUMES or Direct Contact with these products.

How do I know if my parts are passivated ?

The appearance of the parts is not changed by passivation. Accepted passivation test methods are given in ASTM A 967 and other specifications. **The copper sulfate test is the most common quick and easy method for grades with high chromium content.** [Copper Sulfate test kits](#) shall be offered by Innovative Coating Industries.

Do I need to pre-clean my Fabricated equipment parts ?

It is utmost necessary to REMOVE light oils or dirt on the parts. BRITOSS products are excellent cleaners and can handle light grease and oils. However, stainless steel alloys high in sulfur or carbon usually require a pretreatment in an alkaline bath such as CLEENOL SS Degreaser. Wiping with 7-10 % Solution of CLEENOL SS will remove Surface oil & Grease.

Should I heat my BRITOSS Dip bath For Cleaning of Small SS Parts by Dipping ?

The passivation requires less time at higher temperatures, so we recommend heating when available, but room temperature is usually sufficient as well.

Do I have to use De-Ionized / De-Mineralized water with BRITOSS Range Products ?

No. You may use any type of water you choose for washing and rinsing. Certain industries have purity concerns and choose to only use DI or another type of purified water. For this reason BRITOSS Range is produced using DI water. However using tap water has no negative effect on the passivation process. Using purified water for the final rinse bath can help avoid water-spotting issues.

How long does BRITOSS DIP in a bath last ?

This depends on the quantity and geometry of the parts being passivated and is difficult to predict. Use bath monitoring procedures recommended by INNOVATIVE to maintain the effectiveness of your bath. The best judge to decide on this parameter in the operator himself. His own experience and discretion will help in standardization.

Will BRITOSS Range products affect the finish of the stainless steel ?

Nitric acid based passivation solution will ETCH to SS Surface. Hence it will affect the Original Gloss of SS marginally.

Can BRITOSS RANGE products be used on metals other than stainless steel ?

Britoss Range may be used to remove surface iron from nearly any metal, including titanium, aluminum, hastalloy inconel, cobalt chrome, etc. It is also works as a good brightener for copper, brass, and bronze.

Are Britoss Range products safe for rubber, plastic, Soldering and brazings ?

Britoss range products are manufacture with NITRIC Acid in its formulation. Hence Prolonged exposure for Rubbers, Plastics, HDPE, PVC, Synthetic Rubber are Not Recommended. Use of PTFE Materials and to some extent HDPE and PP can be done.

Are BRITOSS RANGE products not compatible with any other metals ?

BRITOSS RANGE PRODUCTS will cause damage to the surfaces of concrete, Mild Steel; carbon steel, zinc, and galvanized steel. Avoid exposure of these materials to BRITOSS RANGE and rinse immediately if there is an inadvertent spill onto these materials. we recommend extra dilution and room temperature operation. PVC pipe and fittings made from copper, brass, or bronze are not recommended for long term use with BRITOSS Range Products.

Will BRITOSS RANGE products clean off heat scales, Black Burn Marks or weld dis-coloration ? BRITOSS GEL , BRITOSS SPRAY and BRITOSS DIP are meant for TOTAL AND COMPLETE REMOVAL of all Black Scales, burn-marks due to Heat Treatment and Welding. **The Process time can be 5 Min to 30 Min.** The surface is completely WATER WASHED for removal of RESIDUAL Acids, after cleaning.

Will BRITOSS RANGE products remove rust From MILD STEEL Fabrications : ?

Britoss Range products are NOT RECOMMENDED for MILD STEEL FABRICATIONS. Innovative Coating Industries offer RUSTOGEL 1406, PHOSGEL and GALVAPREP for derusting MS & GI fabrications. These are used as PRE-TREATMENT for MS , GI steels are especially formulated for faster rust removal. For Removal of RUST on SS 304 & 316 L , Regular BRITOSS Range Products are the ONLY RECOMMENDED Products.

My stainless steel item is a railing, sculpture, or otherwise too large and unwieldy for immersion in a bath . What product can I use ?

BRITOSS GEL & BRITOSS SPRAY are especially made for such applications and can be used at your location or at site.

How to complete EFFLUENT TREATMENT of WASH WATERS & chemical Spillage on Work Floor ?

Britoss Range Products are Acidic and will etch the Floor. These Spillage as well as Wash water shall be neutralized by sprinkling Lime Water / Alkaline Neutralizer till the Final Effluent pH is 7.

For getting EXTRA and ADDITIONAL SHINING, Can I use any POLISH SPRAY ? Innovative Coating Industries offers a 500 ml POLISH SPRAY PROMCLEAN SS for total water repellence and Extra Shine on the Cleaned metal. This Spray will increase the TOTAL GLOSS. This is a 500ml self Spray aerosol, very easy to apply, Priced at Rs 180 / can.

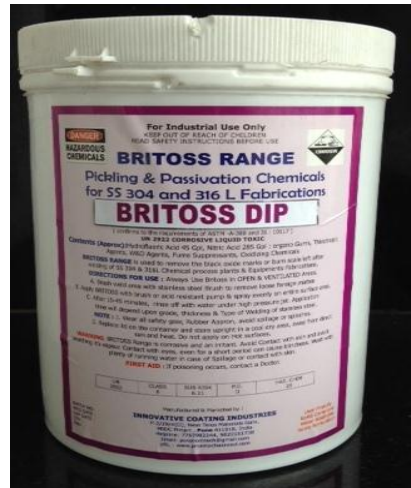
**SS Pickling & Passivation Range APPLICATION INDUSTRY SECTOR
SS 304 & 316L Chemical Plants and Equipments :**



BRITOSS RANGE Products are recommended for PICKLING and PASSIVATION & WELD CLEANING / WELD BRIGHTENING of all Those Products made from SS 304 & 316 L . For application details Pleack check the Product Literature & the FAQ

INNOVATIVE COATING INDUSTRIES : MIDC , Pimpri Pune manufactures the following outstanding Performance Chemicals for the Process of Pickling & Passivation and Weld Cleaning. The Post Cleaning Protection is offered by use of STAINLESS STEEL POLISH SPRAY : CLEAR ACRYLIC LACQUER SPRAY : PEEL OFF VINYL COATING SPRAY and CHROME FINISH SPRAY for Additional Corrosion Protection and Aesthetics .

: Our offered Products are :



Thick VISCIOUS Brushable GEL
Rs 160 / Kg 1 & 5 Kgs packing

Viscous Spayable SEMI GEL
Rs 150 / Kg 1 & 5 Kgs packing

Liquid DIP TYPE Cleaner
Rs 70 / Ltr 5 & 30 Ltr packing

Recommended for Verticle & Large sized Fabrications Jacketted Vessles : Heat Exchangers : Chemical Plants SS Pipelines : Tank Farms : SILOs : Oil & Gas Equipts

Recommended for SMALL Parts Which need cleaning by Dipping



Rs 180 +++

Rs 180 +++

Rs 180 +++

Rs 350 +++

Rs 225 +++

All Aerosol Spray Cans are 500 ml : VAT 12.5 % : Ex Stock from Thane & Pune Locations :

All above are HIGH TECH APPLICATION Products for Added Anti Corrosion and for protection from SALINE , HUMID and Chemical Fumes atmosphere . These are Specifically recommended for All Items for EXPORTS and for Sea-Transportation as well.

APPLICABLE Specifications : IS 10117 ASTM A – 380

E&OE

For All Technical and Commercial Information : Please call :

INNOVATIVE COATING INDUSTRIES

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