GSP

GLOBAL SPECIALTY PRODUCTS USA INC.

Specialized In

ECO FRIENDLY

SURFACE CHEMISTRY

www.gsp-usa-inc.com

FRP ULTRA RESIN REMOVER PRESENTATION
November 01, 2017

GSP

GLOBAL SPECIALTY PRODUCTS USA INC.

“SINCE 1994”

A Manufacturer of Environmentally Safe, Low Emission and Recyclable Solvent-based, Soy-based and Aqueous-based Industrial Cleaning Products for Printing Inks, Adhesives, Varnishes, Colors, Polymers, as well as, Resins & Coatings Removers, Degreasers, Rust Inhibitors and Specialty Additives

FRP ULTRA RESIN REMVOER PRESENTATION
November 01, 2017

FRP ULTRA™

Resin Remover

FRP ULTRA™

Resin Remover

Flexo & Rotogravure Printing

Resin Remover

Packaging

- ✓ **One Gallon Jugs**
- ✓ **5 gallon Pails (HDPE)**
- ✓ **55 gallon steel drums**
- ✓ **GO GREEN WIPES** (12” x 12” center-pull sat-wipe roll (containing 90 wipes) in a easy Dispenser Bucket – to carry anywhere and everywhere you may need it!)

FRP ULTRA™

Resin Remover

An Ideal Replacement for:

- **N-Methyl-2-Pyrroldone “NMP” (Direct Replacement), “BLO”, “DBE” & “DAA”**
- **Chlorinated Solvents “Methylene Chloride”**
- **Ketones (“Acetone”, “MEK” & “MIBK”)**
- **Acetates**
- **Paint Thinners (aromatic and aliphatic Naphthas)**

FRP ULTRA™

Resin Remover

Properties

- **Low Vapor Pressure & High Boiling Point**
- **Reduced VOC (3.85 lbs./gal or 437 grams/liter)**
- **Non-HAPs**
- **Non-Flammable (flash point:169 °F Pensky Martins cc)**
- **Non-Corrosive (pH range: 6.2-6.6)**
- **Non-Reactive**
- **Low order of toxicity**

FRP ULTRA™ Resin Remover

Environmental Compliance

- **DOES NOT contain raw materials listed on TOXIC SUBSTANCE LIST - "LIST OF LISTS" – Consolidated List of Chemicals subject to Emergency Planning and Community Right-To-Know (EPCRA), Comprehensive Environmental Response, Comprehensive Liability Act (CERCLA)**
- **Compliant with California Clean Air & Water Rule 1171**
- **Compliant with Canadian, European & Mexican HAZARDOUS AIR POLLUTANTS Requirements**
- **DOES NOT contain raw materials known to the State of California (Proposition 65) to cause cancer, birth defects or other reproductive harm**
- **DOES NOT contain raw materials listed on SECTION 112(b) OF HAZARDOUS AIR POLLUTANTS**

FRP ULTRA™ Resin Remover

Quality Standards and Compliances

- **All products are manufactured and packaged in-house. GSP-USA does not outsource any products for manufacturing and packaging**
- **ALL PRODUCTS are manufactured in USA, Stainless Steel 25, 250 and 1,500 gallons vessels. An additional 2,200 Gallon Vessel will be added by 1st quarter 2018**
- **Size of the batches are normally 1,120.0 Gallons (9,184.0 Lbs.)**
- **All batches manufactured undergo Quality Control – Quality Lab Procedure, Evaluation and Analysis followed by Established Protocol Specifications & Documentation**
- **All raw materials suppliers are carefully selected for their high quality ingredients, and are based in USA**

FRP ULTRA™

Resin Remover

Recyclable via Vacuum Distillation
At 300 °F and 27° mm Hg

Save Costs – Reduce Waste

Recycling Pays Back
Reduces Waste, Save the Environment

Resin Remover

Suitable to use with your existing cleaning equipment including;

- **High pressure cabinet washers**
- **Immersion tanks with ultrasonic**
- **Spray-under immersion**
- **In-line assembly,**
- **etc.**

FRP ULTRA™

Resin Remover

Removal of the following Inks:

- **Solvent-based**
- **Nitrocellulose**
- **Vinyl**
- **Water-based**
- **Polymeric**
- **UV-Curable Inks**
- **Soy-based and other Printing Inks including Varnishes and Colors**

FRP ULTRA™ Resin Remover

Removal of Adhesives

- Laminating adhesives (polyurethane prepolymer & copolymer)
- Sealant, Bisphenol A based Epoxy
- Reactive Hot Melt Adhesive (Polyurethane or Acrylic)
- High Performance Adhesives
- Composite Bonding
- Glass Glue Adhesives
- Cyanoacrylate Adhesives
- Epoxy & Vinyl Ester Adhesives
- Pigmented Gel Coats
- High & Low Solid Aliphatic
- Waterborne Epoxy Primers

FRP ULTRA™

Resin Remover

Removal of Resins

- **Cured & un-cured Resins (Orthophthalic; Isophthalic; Dicyclopentadiene; Polyester; Vinylester & Epoxy**
- **Laminating adhesives (polyurethane prepolymer & copolymer)**
- **Isocyanates (Part A & B)**
- **Urethane Intermediates "POLYOLS" – TDI & MDI Esters & Eathers – (Polyether Polyols, & Polyester Polyols)**
- **Flexible & Rigid Polyurethane Foam**

From Press Equipment

- **Flexo and Photopolymer Plates**
- **Anilox, Rubber and Ceramic Rollers**
- **Doctor Blades, Filters, Lockup Holders, Fittings, Connectors, Ink Pans, Transfer Pails, Drums) and Production floors, etc.**

FRP ULTRA™

Resin Remover

Features	Benefits
Use as is, No Daily Titration/ Calibration	Save time
ONE CLEANER for all, inks, adhesives & resin removal	Lower Inventory/Eliminates multiple products
Residue Free	Eliminates cross contamination
Evaporates 200X slower than Acetone, MEK. 600X slower than Methylene Chloride	Lowers VOC emissions & increase production capabilities
High Resin Loading	Lowers make-up solvent costs: use repeatedly, minimize waste
Non-flammable: Non-HAPs, No SARA 313 Reporting	Safer working environment, lower insurance premium
Water rinsable & Biodegradable	Environmentally friendly
Recyclable, Reusable (vacuum distillation)	Reduce waste, save cost & preserve the environment
Ideal Replacement for NMP	Worker friendly

Additional Products

- **D-BOND ™ ADHESIVE REMOVER**
- **INK BLASTER ™ - OS**
- **NATURE'S GUARD ™ SOY-BASED INK, ADHESIVE & RESIN REMOVER**
- **OPTIMA ™ | 2000FG AQUEOUS CLEANER "NSF APPROVED"**
- **ANILOX ROLL CLEANER ™ SC**
- **Globe Kleen ™ - 2001**

FRP ULTRA™ Resin Remover

Recycling Results

- **As one can see from the Data on page (22), The cost of operation is being reduced as the number of recycling cycles are increased**

- **After 10 recycling Loops, the price per Gallon will be decreased for:**

  - ✓ **In-house Reclamation from $34.40 to $4.93 per gallon**

Recycling Pays Back
Reduce Waste, Save the Environment

FRP ULTRA™ Resin Remover

Recycling Results (CON'T)

	In-House Recycling
Initial Fill	
$ Price per Gallon / per Lb.	$34.40
Volume (Gallon) Assuming 10 Drums	550 gallons
$ Cost for Initial fill ($34.40 x 550)	$18,920.00
First Recycle Loop	
% lost to drag out & evaporation	3% or 16.5 gallons
Volume (gallons) ready to be recycled (3%x550 gal.)	533 gallons (550 – 16.5)
% Recovery from Distillation	85%
Total Gallons Recovered (85%x533.5)	453.5 gallons

FRP ULTRA™ Resin Remover

Recycling Results (CON'T)

	In-House Recycling
First Recycle Loop (cont'd)	
$ Cost per gallon for recovery	$0.72 (energy cost)
$ Total Recovery Cost (533.5 x Cost/Gal. of Recovery)	$384.00
Gallon Make-Up Required (550 Gal. x 18%)	99.0 gallons
$Cost for Make-Up (99.0 x $34.40)	$3,405.60
Gallons to be disposed of (15% x 533.50)	80 gallons.
$ Disposal Costs / 80 Gallons (non-Hazardous)	$300.00
Total Cost for Cycle 1	**$23,009.60** which is ($18,920.00 + $384.00 + $3,405.60 + $300.00)

FRP ULTRA™ Resin Remover

Recycling Results (CON'T)

	FRP ULTRA RESIN REMOVER – In-house Reclamation Data
First Cycle	Total Cost: $23,009.60 / 550 gallon = **$41.84 / gallon** (after first reclamation cycle for 10 drums) **Repeat and Constant Costs** at each Cycle: ($384.00 + 3,405.60 + $300.00) = **$4,089.60**
Second Cycle	By the end of 2nd cycle, you have recycled a total of 1,100.0 gallons Total Cost: $23,009.60 + $4,089.60 / (550 gallon X 2) = **$24.63 / gallon**
Third Cycle	By the end of 3rd cycle, you have recycled a total of 1,650.0 gallons: Total Cost: $23,009.60 + $4,089.60 / (550 gallon X 3) = **$16.42 / gallon**

FRP ULTRA™ Resin Remover

Recycling Results (CON'T)

	FRP ULTRA RESIN REMOVER – In-house Reclamation Data (cont'd)
Fourth Cycle	By the end of 4th cycle, you have recycled a total of 2,200.0 gallons: Total Cost: $23,009.60 + $4,089.60 / (550 gallon X 4) = **$12.32 / gallon**
Fifth Cycle	By the end of 5th cycle, you have recycled a total of 2,200.0 gallons: Total Cost: $23,009.60 + $4,089.60 / (550 gallon X 5) = **$9.85 / gallon**
Sixth Cycle	By the end of 6th cycle, you have recycled a total of 2,200.0 gallons: Total Cost: $23,009.60 + $4,089.60 / (550 gallon X 6) = **$8.22 / gallon**
Seventh Cycle	By the end of 7th cycle, you have recycled a total of 2,200.0 gallons: Total Cost: $23,009.60 + $4,089.60 / (550 gallon X 7 = **$7.04 / gallon**

FRP ULTRA™ Resin Remover

Recycling Results (CON'T)

	FRP ULTRA RESIN REMOVER – In-house Reclamation Data (cont'd)
Eighth Cycle	By the end of 8th cycle, you have recycled a total of 2,200.0 gallons: Total Cost: $23,009.60 + $4,089.60 / (550 gallon X 8) = **$6.20 / gallon**
Ninth Cycle	By the end of 9th cycle, you have recycled a total of 2,200.0 gallons: Total Cost: $23,009.60 + $4,089.60 / (550 gallon X 9) = **$5.47 / gallon**
Tenth Cycle	By the end of 10th cycle, you have recycled a total of 2,200.0 gallons: Total Cost: $23,009.60 + $4,089.60 / (550 gallon X 10) = **$4.93 / gallon**

Resin Remover

Facts

- Customers have been successfully using **FRP ULTRA™ - Resin Remover** to clean Inks, Adhesives, Polyurethane Foam, and Industrial Resins (Polyester, Vinylester, Epoxy) for over 20 years.
- **Effective** in cleaning many industrial resins as **effective** as NMP, Methylene Chloride, MEK, Acetone and Acetates.
- **Pre-soak** the parts in an immersion tank containing **FRP ULTRA™ - Resin Remover** to remove the bulk of the resins before proceeding with the actual cleaning process.
- Manufactured in the United States

FRP ULTRA™

Resin Remover

Capital Investment for Cleaning Equipment & Cost of Cleaner (Solvent Based)

Limited Capital Investment needed

- Purchase an immersion tank with spray agitation (double filtration system for pre-soak)

Cost of Cleaner

- NO initial cost – already using the product
  Major cost savings – Recycle via Vacuum Distillation

85% recycling yield is obtained

We Are Committed To Values

People & Profitability Go Hand-In-Hand

- Trust & communication are important to us. You need a product you can rely on to work right every time, and the support to go with it. At GSP USA, we offer the full package.

Innovation

- We are constantly extending our technology portfolio by developing new products to meet your cleaning requirements

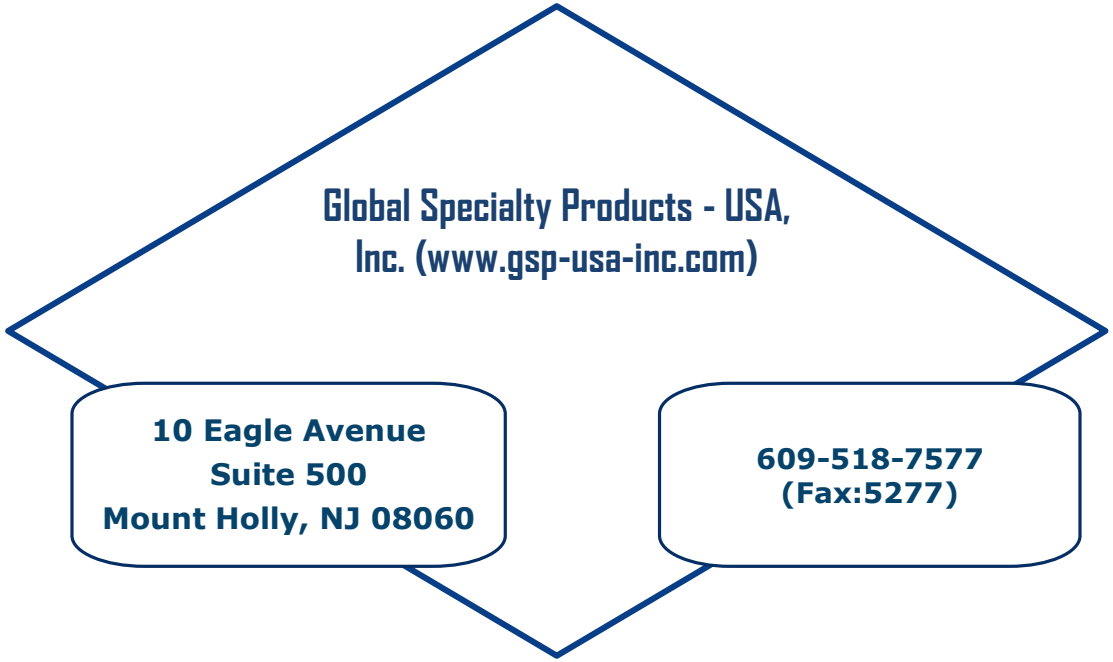
Reliability & Speed

- We pledge to deliver quality products according to our specifications at all times and to meet your deadlines

Commitment to Environment

- Help the industries we serve to reduce VOC's and eliminate the use of highly hazardous and toxic chemicals while minimizing waste

Un-Matched Technical Support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