

Pollution Prevention by Design



Inland Technology Support Contact Information

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www.InlandTech.com

*The Environmental Solutions for Today's Industrial
Manufacturing related Production, Maintenance,
Service, Painting, Cleaning & Degreasing
Requirements.*





Your World-Wide Green Solvent Solutions Provider

With a Global Partner Network for Local Support



CHEMICAL Solutions



EQUIPMENT Solutions



Inland Technology Incorporated is a research and development company. Our principle business for the last 30 years has been designing and manufacturing environmental technology; technology that reduces or eliminates the generation of hazardous waste, Hazardous Air Pollutants (HAPs), and Volatile Organic Compound (VOCs) emissions. We are a recognized world-wide leader for advanced environmentally responsible solvents that are long term sustainable solutions.

We have been successful at providing non-hazardous, alternative green chemistry for the Military, Aerospace, Automotive, Industrial, and Oil & Gas industries for a variety of clients such as the Boeing Company, General Dynamics, Halliburton, the Ford Motor company, Intel, the Department of Defense, and NASA – replacing many of the hazardous solvents that are being highly regulated today and used in a variety of activities such as degreasing, cold solvent cleaning, paint cleanup, weapons cleaning, and surface preparation of all kinds.

Many of our technologies have been independently verified through Scientific Material International (SMI Labs) and offer major benefits in the reduction of HAPs & VOCs and have dramatically reduced the waste streams and carbon footprints for a wide variety of sites seeking more green technology while at the same time decreasing costs associated with these activities.

Inland Technology has, through the following and other solvent cleaning activities, been successful at reducing the cost of operations by 50-80% or more versus conventional solvents and technology throughout every industry, while remaining equally as effective or better for production considerations.



Advantage!
www.gsaAdvantage.gov



Corporate Credentials

Inland Technology Incorporated enjoys the following credentials among many others:

- Identified by the National Defense Center for Environmental Excellence (NDCEE) as a Research Center supporting the Defense Community in the development of environmentally acceptable technologies.
- A member of the Joint Association for the Advancement of Supercritical Technology (JAASST) along with other technology giants such as Los Alamos National Laboratories, Battelle Northwest Laboratories, IBM, Boeing, and Hughes.
- Has members listed in the Department of Energy (DOE) Inventory of Expertise in its Innovative Technology Development Plan.
- Active in the ASTM F-7 Subcommittee on Solvent Substitutes for Aircraft and Aerospace.
- Inland is an invited member of International Air Transport Association and participates on their subcommittee for Non-chlorinated Paint Stripping Alternatives.
- Inland is active in the SAE G-9 Subcommittee on advanced methods for sealant applications.
- An active member of SAE Aerospace Committee J establishing material standards for aerospace chemicals.
- Inland is an invited participant on the US Environmental Protection Agency's "Use Cluster" committees for development of printing and aerospace industry regulations.
- Inland is active in the ASTM G-4 Subcommittee searching for new technologies for cleaning LOX lines.
- Has active members listed in ASM International, the central authority on the development, processing and application of materials - from the structural to the nanoscale.

Invited Members of:

- EPA Aerospace Industries Subcommittee
- EPA Design for Environment Subcommittee
- ASTM G4 Committee for CFC Replacement
- SAE G9 Committee for Chemical Research
- NDIA Small Arms Committee



A few of Inland

Technology's

High Profile clients

Schlumberger



GE
Energy



SIEMENS



CATERPILLAR®

HALLIBURTON

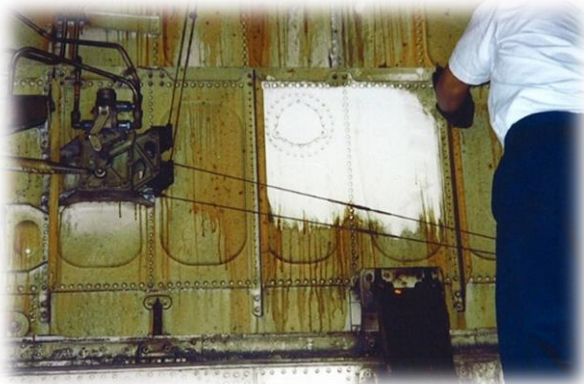


Product Solvent Solutions:

Surface Degreasing & Cleaning

Citra Safe®:

- Citrus Odor
- Solvent (Terpene based) - Degreasing
- 132F Flashpoint (56C)
- Combustible, not Flammable
- No Halogens: Chlorinated, Fluorinated or Brominated content
- Strong penetration for standard greases, glues and adhesives as well as paraffin wax and crude oil
- Very low vapor pressure for VOC emission controls
- Hydrophobic material
- 50,000+ Volt Dielectric Strength
- Infrared spectroscopy Test Results: Extremely clean at 1.3% Absorption (versus IPA at 24%)
- Boeing Specs: BAC 5750, BAC 5000, BAC 5504, BAC 5030, BAC 5877, D6-7127
- Airbus spec: SIL Number 20-006, CML # 11-016



Teksol™ EP:

- Slight Citrus odor
- Solvent - Degreasing
- 112F Flashpoint (45C)
- Combustible, not Flammable
- No Halogens: Chlorinated, Fluorinated or Brominated content
- High carbon release characteristics
- Strong penetration for protective greases
- Electronic / Flux cleanup
- Very low vapor pressure for VOC emission controls
- Hydrophobic material
- 50,000+ Volt Dielectric Strength
- Infrared spectroscopy Test Results: Extremely clean at 1.5% Absorption (versus IPA at 24%)



Product Solvent Solutions:

Surface Degreasing & Cleaning

Iso Prep™:

- Odorless
- Solvent - Degreasing
- 104F Flashpoint (40C)
- Combustible, not Flammable
- No Halogens: Chlorinated, Fluorinated or Brominated content
- High carbon release characteristics
- Strong penetration for protective greases
- Electronic / Flux cleaner
- Very low vapor pressure for VOC emission controls
- Hydrophobic material
- 50,000+ Volt Dielectric Strength
- Infrared spectroscopy Test Results: Extremely clean at 1.5% Absorption (versus IPA at 24)



AV-Ops™:

- Slight chemical odor
- Solvent
- 116F Flashpoint (47C)
- Combustible, not Flammable
- No Halogens: Chlorinated, Fluorinated or Brominated content
- Designed for both Polar and non-Polar based contaminants
- Strong penetration for Dykem dye, part mark and paint stick
- Very low vapor pressure for VOC emission controls
- Hydrophobic material
- 50,000+ Volt Dielectric Strength



Surface Cleaning Comparison

Solvent Used?

Chemical Concerns?

Flashpoint?

NESHAPs?

VOCs?

Residue?

Evaporation?

Comparative Usage Potential?

Cost Comparison?

Equipment Warranty Info?

Inland Technology, Inc.

Iso Prep, Partsmaster Type I, Teksol EP, Citra Safe, AV-Ops

Non-Toxic, No HAPs, Low-VOC, Safe, Not Flammable

High Flashpoint, All Over 100 F (38 C)

Compliant

Low-Vapor Pressure for VOC Emission Control

Clean, Residue Free After Drying

Slower Evaporation for Chemical Consumption Control

5 – 18 Times More Surface Wipe Down Per Gallon Versus Conventional, Estimated

30% - 60% Less Versus Conventional, in Controlled Use

Lifetime Warranty while Using Inland Solutions

Conventional Methods

MEK / MPK / Toluene / Paint Thinner / Acetone

Hazardous, Toxic, Possible HAPs, High-VOC, Flammable

Could be Highly Flammable, Low Flashpoint Potential

Often NESHAPs Concerns

High-Vapor Pressure, High VOC Potential

Clean, Residue Free After Drying

Faster Evaporation, Encourages High Consumption Rate of Chemical

Not Applicable, typically

Product Solvent Solutions: In Equipment Based Partswashing

Breakthrough®:

- Odorless
- Solvent - Degreasing
- 150F Flashpoint (66C)
- Non-Hazardous per RCRA
- No Chlorinated or Benzene content
- High carbon release characteristics, standard partswasher solution
- Very low vapor pressure for VOC emission controls
MIL PRF-680 Type II QPL Listed



Skysol™:

- Slight Citrus odor
- Solvent - Degreasing
- 152F Flashpoint (67C)
- Non-Hazardous per RCRA
- No Chlorinated or Benzene content
- High grease solubility characteristics
- Very low vapor pressure for VOC emission controls
MIL PRF-680 Type IV QPL Listed



Skysol™ 100:

- Strong Citrus odor
- Solvent - Degreasing
- 146F Flashpoint (63C)
- Non-Hazardous per RCRA
- No Chlorinated or Benzene content
- Extreme grease solubility characteristics, aggressive solution
- Very low vapor pressure for VOC emission controls



Partswashing Model Comparison

Inland Technology, Inc.

Rental / Service Company

Self Owned, Mineral Spirits / NAPTHA

Solvent Hazardous?

Non-Hazardous

Likely Hazardous

Likely Hazardous

Chemical Acquisition Comparison?

Consumable Solution As Needed

Perpetual Rental / Service Cost Loop

Consumable Solvent As Needed

Method for Extending Solvent Life?

Dual-Stage Microfiltration System

NONE

NONE

Frequency of Service?

Adjusts to Production Levels

4-12 Week Cycle, Regardless of Production Use

Adjusts to Production Levels

Service Cost?

No Charge Where Representation

\$200 - \$1,300 / per service

No Service Offered, Production Cost

Quality?

Filters Out Particulates for Assured Production Quality

NO FILTRATION Likely

NO FILTRATION Likely

Solvent Usage Life?

18 - 24 MONTHS (AVG)

4-12 WEEKS (EST)

4-12 WEEKS (EST)

Waste?

Non-Hazardous, typically

Hazardous, likely

Hazardous, likely

VOC Benefit?

Low-Vapor Pressure for VOC Control

NONE

NONE

Odor?

Odorless / Slight Citrus Odor

Strong Chemical Odor, typically

Strong Chemical Odor, typically

Warranty Information?

Lifetime Warranty on Parts, while using ITI Solutions

NONE

NONE

Estimated Operating Costs? (Ongoing)

\$22 - \$75 / per month (or less)

\$200 - \$1,300 / per month, service (or more)

\$191 - \$575 / per month (or more)

Weapon Cleaning Comparison

Material Used?

Chemical Concerns?

How is it used?

Benefits of Technology?

MIL PRF-680 Qualifications? (Department
of Defense Specification)

Inland Technology, Inc.

Breakthrough, Skysol, Skysol 100,
Partsmaster Type I

Non-Hazardous, Non-Toxic, Odorless, Safe

Equipment based partswasher with micro-
filtration to remove particulates and
maintain integrity of quality for precision
cleaning

50% Reduction in Chemical Use & Costs
Expected Versus Conventional, Major
Increase in Productivity

Yes, MIL PRF-680 Type I, II, IV Listed on
Qualified Products List (QPL)

Conventional Methods

Mineral Spirits, NAPTHA, PD-680, Generic
Cleaners

Hazardous, Toxic, Concerns for Human
Exposure, Strong Odor

Spray & Wipe, Manual Cleaning with no re-
use potential

Labor Intensive Process, Consumes a
Great Amount of Chemical

No, Not Typically Listed

Product Aqueous Solutions:

Plane Wash, Aqueous Partswashers & Spray Cabinets

Millennium®:

- Odorless
- Aqueous
- Flash Point: Not Applicable
- pH Level (at dilution): 8-9
- Non-Hazardous per RCRA
- No Chlorinated or Benzene content
- Non-Corrosive in proper dilution
- Non-VOC
- Does not emulsify
- Does not foam when heated



Freedom Kleen™:

Spray Cabinet Powder

- Powder-based material
- High Strength cleaning characteristics
- Low-Foaming action
- Designed for aqueous spray cabinets as an aggressive cleaner



Pressure Wash / Aqueous Cleaning Comparison

Material Used?

Chemical Concerns?

PH?

Emulsification?

Chemical Oxygen Demand (COD)
Benefit for Disposal?

Corrosion Concerns?

VOCs?

Inland Technology, Inc.

Millennium, Samurai, Safety Prep, Freedom
Kleen

Typically Neutral at Dilution

Does not Emulsify, Helps Prevent Oil &
Grease from Mixing

Yes, Separation Promotes Oil / Water
Separation and Benefits COD Issues in
Disposal

Can be non-Corrosive at Dilution

No VOC Potential

Conventional Methods

Sodium Hydroxide, Caustic Materials,
Other Detergents, Etc

Hazardous, Toxic, Possible HAPs, High-
VOC, Flammable

Could be High, Could be Low, Varies

Emulsifies, Allows Oil & Grease to Mix

No, Mixing with Oil & Grease Causes
Issues for Oil / Water Separation and
Creates COD Disposal Issues

Typically Corrosion Issues

Probable VOCs

Product Aqueous Solutions:

Pressure Washing, Floor Cleaning & General Purpose Degreasing



Safety Prep™:

- Slight detergent odor
- Aqueous solution
- Flashpoint not applicable
- pH Level (at dilution):12-12.5
- Works well to remove a wide variety of ionic, non-ionic, and particulate contaminants including: oils, greases, oil & water based muds, carbon deposits, cutting fluids, inks, fatty acids, dirt, and grime.



Samurai™:

- Slight detergent odor
- Aqueous solution
- Flashpoint not applicable
- pH Level (at dilution): 12-12.5
- Is an aggressive aqueous blend of surfactants, alkaline builders, chelating agents, couplers, detergents, and corrosion inhibitors. The synergistic blend quickly removes most stubborn soils, greases, inks, dirt, and other industrial soils or stains.



Paint Cleanup Solutions:

Application Equipment Cleaning & Paint Stripping

EP-921®:

Paint Cleanup

- Slight Citrus odor
- Solvent
- 146F Flashpoint (63C)
- Combustible, not Flammable
- No Halogens: Chlorinated, Fluorinated or Brominated content
- Very low vapor pressure for VOC emission controls
- Hydrophobic material
- Compliant to OSHA regulations for solvent usage in paint booths (above 100F Flashpoint threshold requirements)
- Re-use capabilities, since it is not a diluent for paint
- Good for cleanup of 99% of paints on the market
- Strong cleaning characteristics for fiberglass manufacturing contaminants



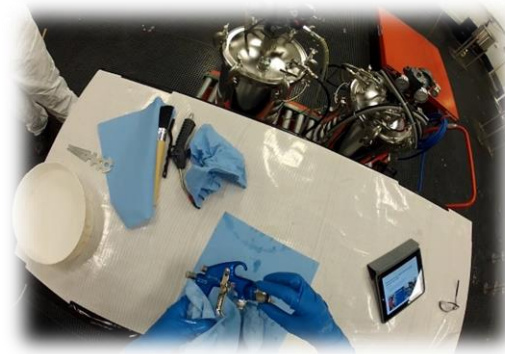
BEFORE



AFTER

Citrex™: Paint Stripper

- Significant Citrus odor
- Solvent – Stripping Compound
- 144F Flashpoint (62C)
- Non-Hazardous per RCRA
- No Chlorinated or Benzene content
- Aggressive cleaning for greases, rubbers, stripping of paints and other materials
- Very low vapor pressure for VOC emission controls



Painting Application Equipment Cleanup Comparison

Solvent Used?

Chemical Concerns?

Flashpoint?

NESHAPs?

Diluent?

Re-Usable?

Filterable?

OSHA 29CFR 1910.107 (g) (5) ?

Waste Comparison?

Cost Comparison?

Equipment Warranty Info?

Inland Technology, Inc.

EP-921 Solution

Non-Hazardous, Non-Toxic, No HAPs,
Low-VOC, Safe

146 F / 63 C

Compliant

No

Yes, Multiple Times

Yes, with Inland Reclamation Equipment

Compliant

60% Less Versus Conventional, or Better
Comparatively

60% Less Versus Conventional, or Better
Comparatively

Lifetime Warranty while Using
Inland Solutions

Conventional Methods

MEK / MPK / Toluene /
Paint Thinner / Acetone

Hazardous, Toxic, Possible HAPs, High-
VOC, Flammable

-4 F (-20 C) to 43 F (6 C)

Often NESHAPs Concerns



























Yes

No, Single Use

No

Not Compliant, Likely

Not Applicable, typically

Usage Guide  Inland Solution 	Partwashers / Solvent Tanks / Weapon Cleaning	Paint Cleanup / Resin Cleanup	Surface Preparation	General Degreasing / Aerosol	Dykem Dye / Ink / Part Mark Removal	Paint / Resin Stripping (Cold Solvent Tank)	Aqueous Partwasher	Pressure Washing	General Aqueous Degreasing
Iso Prep™									
Partsmaster™ Type I MIL PRF-680C I									
Teksol™ EP									
Citra Safe®									
Breakthrough® MIL PRF-680C II									
Skysol™ MIL PRF-680C IV									
Skysol™ 100									
Partsmaster™ Type III									
AV-Ops™									
EP-921®									
AeroStrip™									
Citrex™									
Millennium®									
Samurai™									
Safety Prep™									

Automated Self-Recycling Equipment (non-Hazardous Solvent Series):

Increase Production activity



IT-80™*: 80gallon
Rack Agitation
Partswasher



IT-55™*: 55gallon
Rack Agitation
Partswasher
(CUSTOM Unit)



IT-760FJ™*: Large
Propeller-driven
Fluid Agitation
Unit (FJ Series)
(CUSTOM Unit)



IT-95™*: 160gallon
Rack Agitation
Partswasher
(CUSTOM Unit)



Tek Jet™: Solvent
Based Spray
Cabinet washer
(SJVAQMD VOC
Exempt unit)
(CUSTOM Unit)



AK-16™: Small Part
/ Bolt Cleaning
Agitation unit



IT-110™*:
220gallon Rack
Agitation
Partswasher
(CUSTOM Unit)

*These units are available in Rack Agitation stand alone or combination rack-agitation with Propeller-driven Fluid Agitation (FJ Series). Any CUSTOM equipment items require 50% payment in advance of build and would have a lead time of approximately 8 weeks.



Manual Self-Recycling Equipment (non-Hazardous Solvent Series):

For detail oriented cleaning activities.



IT-30™: Standard
sink-on-drum
partswasher



IT-48™: 42gallon
partswasher



IT-40™: 28gallon
partswasher



IT-3000™: low-
profile mobile
partswasher



Partswashing Self-Recycling Equipment (AQUEOUS Series):

For detail oriented water-based cleaning activities.



IT-2000™: Cart based cleaning station, 7 gallons – air driven pump



IT-33A™: 30gallon Aqueous solution partswasher



IT-40SSAQ™: 36gallon Aqueous Solution partswasher



IT-4030™: Aqueous Spray Cabinet
Limited Warranty Available
(CUSTOM Unit)



Field Service Self-Recycling Cleaning Equipment: Reduce Solvent use in the Field



IT-15D™: Table Top
4gallon
partswasher



IT-25D™: Table
Top 7gallon
partswasher



IT-21D™: Roll-
around
partswasher



IT-32D™: Heavy
Duty Mobile-Unit
partswasher.
Durable for
extended
movement and
transfer
requirements
(CUSTOM Unit)



IT-8™: Cleaning
station



Painting Equipment Self-Recycling Cleanup Equipment / Miscellaneous Equipment:



IT-45SSER™: Air driven stainless steel partwasher for manual cleaning



IT-200™: Automated paint gun cleaner with flow-through brush for detail work – air driven



IT-3900™: Reclamation station for large painting equipment system (pot & lines, in-line systems, airless pumps etc) – air driven



AirJet™ 24 / IT-3™ / Pro Safe™ Sprayer: Bulk form delivery method equipment



IT-5000™: Bulk Hydrocarbon / Solvent / Hydraulic Fluid Filtration system with air driven pump, pickup tube & dispensing wand on a roll around cart
(CUSTOM Unit)



Warranty

In the interest of maintaining the highest possible customer satisfaction with our equipment and technology, Inland Technology offers the following warranty on all of our equipment

“Lifetime Free Replacement of all damaged, worn out, or broken parts, as long as the customer has used only Inland Technology Solvents and Filters in the equipment.”

**INLAND TECHNOLOGY INCORPORATED
401 East 27th Street, Tacoma, WA 98421
(253) 383-1177 • (800) 552-3100**



YouTube Clips & Links of Inland Technology Equipment and Solutions in Use:

The IT-760PJ Large, Heavy Duty Flow-Jet (Fluid Agitation) Partswasher - Using Skysol 100 solvent

<http://www.youtube.com/watch?v=nyjSNBWu1Ps>

IT-80 Agitating Partswasher - Using Breakthrough solvent

<http://www.youtube.com/watch?v=gashYLVsukY>

IT-80 Large Agitating Partswasher - For Thread Protector Cleaning - Using Breakthrough solvent

<http://www.youtube.com/watch?v=z45yGNj8c6o>

The IT-80 Large Agitation Unit and IT-48wc Manual Chest Style Machine - Using Skysol solvent

<http://www.youtube.com/watch?v=dU8R6LbnD9A>

The IT-95 Large Automated Agitating Partswasher - Utilizing Breakthrough solvent

http://www.youtube.com/watch?v=Il-jasm_28w

Iso Prep solvent in use for heavy copper based thread dope and grease

<http://www.youtube.com/watch?v=Pos06kye-j4>

Non-Hazardous Breakthrough solution cleaning drilling mud and grease

<http://www.youtube.com/watch?v=0o60uHstQCc>

AV-Ops solution cleaning off 10 year old paint mark on a drilling tool

<http://www.youtube.com/watch?v=jINgrYABhCQ>

AV-Ops cleaning Dykem Dye covered tooling plate

<http://www.youtube.com/watch?v=YrSDTCCYiZ8>

Non-hazardous Breakthrough solution cleaning drilling mud, grime off of a tool at test-well site

http://www.youtube.com/watch?v=XnGfyVz9_Y8

IT-30 Standard Sink-on-Drum Partswasher using Breakthrough solution

<http://www.youtube.com/watch?v=jSEoFZCwmNY>

The IT-80 Automated Agitating Partswasher - Precision Tool Cleanup with Breakthrough solution

http://www.youtube.com/watch?v=ijF6w6_0SB8

IT-30H Extra depth manual wash tank

<http://www.youtube.com/watch?v=xSCpwKeKuYM>

Skysol solution in use for NDT testing

<http://www.youtube.com/watch?v=8nf29xlxOCK>

IT-55 Automated Agitation (Fluid & Rack) in Use for Bearing Grease removal and cleanup

<http://www.youtube.com/watch?v=CAHgYSvkqk4>

IT-55 Automated Agitation Partswasher with Prop Jet Fluid Agitation Technology

<http://www.youtube.com/watch?v=Ux21-ZzKDRA>

FC-95 Absorbent (Dry Method - oil spills)

<http://youtu.be/rJUBmfx3cFo>

FC-95 Absorbent (Dry Method 1)

<http://youtu.be/F-6SGuRjMcM>

FC-95 Absorbent (Dry Method 2)

<http://youtu.be/yHA1n-2mXOE>

FC-95 Used in Wet Method (Floor Cleaning)

<http://youtu.be/vzzCp8KXIRg>



Inland Technology

Replacement Product Guide



Please contact an Inland Technology Technical Engineer for collaboration on effective replacement chemistry identification by contacting Inland@Inlandtech.com Inland Technology Technical Assistance can also be reached at: [\(800\)552-3100](tel:8005523100)

Be sure to run an engineering test prior to full implementation on any replacement products to ensure quality assurances. Varying substrates, seal & o-ring contact and various follow-on processes may affect your individual replacement chemistry choice. In all evaluations, please involve an Inland Technology Technical Engineer for assistance. **Bypassing these requirements may create unwanted and unforeseen effects on the substrates and for the processes involved.**

Each of these Solutions has been identified for Environmental Responsibility improvements and Improved Health for Worker Exposure concerns. They are also integral to Lean/ EPIC / Kaisen Manufacturing programs looking to cut waste, costs and more effective process solutions. Each is in use by a large, well-known company and have met the needs required by extreme industrial sectors with success. None of these Solutions contain Hazardous Air Pollutants (HAP's) and all (where applicable) have extremely low vapor pressures to control VOC (Volatile Organic Compound) emissions. When appropriate, Inland Technology offers Equipment (under a Lifetime Warranty while utilizing ITI Solutions) for Life-Cycle Usage improvements. Thank you for your interest in Inland Technology solutions.

