



**GREENFIELD**  
GLOBAL

# World Grade™ Solvents: Multi-Compendial Products for Global Markets





# World Grade™ Solvents

Ensure global compendial methods are tested with Greenfield's World Grade solvents, manufactured for pharmaceutical applications worldwide.

## What Makes World Grade Solvents Different

World Grade solvents represent Greenfield Global's commitment to meeting the most stringent international pharmaceutical standards. These premium solvents, under the Pharmco™ by Greenfield Global brand, are tested to global standards, including USP, EP/BP, JP, and NF, and are processed in a IPEC-compliant GMP environment.

### Key Features:

- **GMP Manufacturing:** The solvents are processed by Greenfield in a IPEC-compliant certified facility and in accordance with Good Manufacturing Practices (GMP)
- **Elemental Impurity Compliance:** Tested to meet USP General Chapter <232>, EP General Text 5.20, and ICH-Q3D elemental impurity standards
- **Multi-Compendial Certifications:** Individual products certified to meet specific compendium grade specifications
- **Global Standards:** Tested to satisfy international specifications across multiple markets



## Product Portfolio

Product	Compendial Testing
Acetone	BP, EP, NF
Benzyl Alcohol	BP, EP, JP, NF
Dichloromethane	EP, NF
Ethyl Alcohol 95%, 100% (190, 200 Proof)*	BP, EP, JP, USP
Ethyl Alcohol 95.5% (191 Proof)*	BP, EP, JP, USP
Ethyl Alcohol 96% (192 Proof)*	BP, EP, JP, USP
Glycerin (Natural)	BP, EP, JP, USP
Isopropyl Alcohol (IPA) 99%	BP, EP, JP, USP
n-Propyl Alcohol (1-Propanol)	EP
Propylene Glycol	EP, JP, USP
Water	EP, JP, USP

Compendial testing: BP (British Pharmacopoeia), EP (European Pharmacopoeia), JP (Japanese Pharmacopoeia), NF (National Formulary), USP (United States Pharmacopoeia)

\*Antibiotic-free manufacturing available by request

# Trusted Across Industries for Critical Applications

World Grade™ solvents are processed for demanding applications

## Pharmaceutical Manufacturing

- Process development and manufacturing
- Formulation development
- Cleaning and purification processes
- Quality control analytical testing

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## Quality Assurance Manufacturing Excellence

- Good Manufacturing Practice (GMP) compliant processing
- Rigorous quality control testing at every stage of processing
- Complete batch traceability
- Certificates of analysis provided with each shipment

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## Multi-Compendial Testing Standards

- USP General Chapter <232>
- EP General Text 5.20
- ICH-Q3D elemental impurity guidelines
- Individual compendium specifications for each grade

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## Global Standards

- Multi-compendial testing for worldwide regulatory acceptance
- Consistent quality regardless of destination market
- Streamlined supply chain for multinational operations





# Why Choose World Grade™ Solvents

## Simplified Global Compliance & Supply Chain

- Single source for multiple compendial grades
- Reduces complexity of international supply chains
- Consistent quality standards across all markets
- Global distribution network helps ensure product availability
- Consistent lead times and inventory management

## Proven Manufacturing Expertise

- 30+ years of pharmaceutical solvent manufacturing experience
- GMP facilities and processes (IPEC-compliant)
- Rigorous quality systems and testing protocols
- Technical support and regulatory expertise

# Our solutions support development across:

- **Small molecule pharmaceuticals:** Supporting synthesis and purification from upstream research to downstream manufacturing
- **Large molecule biologics:** Providing solvent and buffer solutions for protein purification processes
- **Analytical research:** HPLC-grade solvents for chromatography workflows and research scale purifications
- **Medical device:** Supplying cleaning, storage, and processing solvents

Serving customers in more than 50 countries, Greenfield fulfills over 35,000 orders annually through our integrated global supply chain, including three high-purity alcohol distilleries, four blending and packaging facilities, and eight strategic warehouse locations.

## What Sets Us Apart

### Quality Across the Lifecycle

We ensure the highest quality products through robust supply chain visibility, rigorous quality systems, and a commitment to addressing our life science customer needs.

- **Rigid standards:** Products available as manufactured under ISO 9001 and/or EXCiPACT certified facilities
- **Compendial testing:** USP, EP/BP, JP, ACS monographs
- **Traceability:** Full chain of custody from our GMP (IPEC-compliant) facilities to end-user manufacturing sites
- **Exceptional quality:** Products available as processed in a white room/clean room environment and tested for bioburden/endotoxin

### Agile Manufacturing

We reduce the complexity of your supply chain through tailored solutions.

- Custom capabilities with exceptional quality and rapid delivery
- 30+ years of recognized experience supplying the pharma industry
- Dedicated GMP (IPEC-compliant) facilities designed for life science applications
- Antibiotic-free ethyl alcohol produced from renewable materials available
- Hazardous material expertise, including flammable and corrosive chemical blending

### Infrastructure that Delivers

Our production and distribution capabilities ensure a secure, reliable supply.

- **Robust global network:** three high-purity ethyl alcohol distilleries with low carbon intensity emission scores
- **Scalable operations:** Supporting everything from pilot runs to full commercial production
- **93% perfect order index:** industry-leading performance
- **1–3-day delivery:** across North America and Europe for many products

### Sustainability Leadership

We are committed to sustainable and responsible practices that minimize environmental impact and advance renewable solutions.

- Operate one of Ireland's first Near Zero Energy Building (NZEB) facilities
- Use waste heat from our Chatham, Ontario plant to heat local greenhouses, supporting circular resource use
- Source sustainable corn from 300+ growers and promote climate-friendly farming practices
- Convert municipal organic waste into renewable natural gas

# Product Portfolio

Product Name	CAS #	Packaging	Catalog Number
Acetone, ACS/BP/EP/NF	67-64-1	4 Liter Amber Glass	329WORLD4CS4L
		5 Gal Metal Pail	329WORLDPL05M
		5 Gal Poly Pail	329WORLDPL05
		55 Gal Metal Drum	329WORLD55M
		55 Gal UV Drum	329WORLD55UV
		204 Liter SSRC	329WORLD200SSRC
		Bulk	329WORLD01
Benzyl Alcohol, BP/EP/JP/NF	100-51-6	1 Liter Amber Glass	303WORLD1L
		4 Liter Amber Glass	303WORLD4CS4L
		5 Gal Metal Pail	303WORLDPL05M
		55 Gal Metal Drum	303WORLD55M
Dichloromethane, ACS/EP/NF	75-09-2	55 Gal Metal Drum	313WORLD55M
Ethyl Acetate, ACS/BP/EP/NF/USP	141-78-6	4 Liter Amber Glass	330WORLD4CS4L
		5 Gal Metal Pail	330WORLDPL05M
		5 Gal Poly Pail	330WORLDPL05
		55 Gal Metal Drum	330WORLD55M
Ethyl Alcohol 100% (200 Proof), ACS/BP/EP/JP/USP/FCC	64-17-15	500 mL Amber Glass	111WORLD500CS500AG
		1 Liter Amber Glass	111WORLD1L
		16L Bag	111WORLD16L
		1 Gallon Fluorinated Poly	111WORLD1GAL
		4 Liter Amber Glass	111WORLD4CS4L
		5 Gal Metal Pail	111WORLD5GAL
		5 Gal Poly Pail	111WORLD5GAL
		5 Gal Shelf Sitter	111WORLD5GAL
		55 Gal Metal Drum	111WORLD55GAL
		55 Gal UV Drum	111WORLD55GAL
		200 Liter SSRC	111WORLD200L
		264 Gal Tote	111WORLD264
		270 Gal Tote	111WORLD270
1250 Liter SSRC	111WORLD1250L		
Bulk	111WORLD01		
Ethyl Alcohol 100% (200 Proof), ACS/BP/EP/JP/USP/FCC, HPLC-UV	64-17-15	55 Gal UV Drum	111WORLD55UV
Ethyl Alcohol 96% (192 Proof), ACS/BP/EP/JP/USP	64-17-15	4 Liter Amber Glass	111WORLD192CS4L
		5 Gal Poly Pail	111WORLD192PL05
		55 Gal Metal Drum	111WORLD192DM55M
		55 Gal UV Drum	111WORLD192DM55UV

Ethyl Alcohol 95.5% (191 Proof), ACS/BP/EP/JP/USP	64-17-15	4 Liter Amber Glass	111WORLD191CS4L
		55 Gal Metal Drum	111WORLD191DM55M
		55 Gal UV Drum	111WORLD191DM55UV
Glycerin, BP/EP/JP/USP/FCC	56-81-5	4 Liter Amber Glass	349WORLD4CS4L
		5 Gal Poly Pail	349WORLDPL05
		55 Gal Poly Drum	349WORLD55M
		200 Gal Tote	349WORLD200
		272 Gal Tote	349WORLD272
IPA 99%, ACS/BP/EP/JP/USP	67-63-0	4 Liter Amber Glass	231WORLD4CS4L
		5 Gal Metal Pail	231WORLD5M
		5 Gal Poly Pail	231WORLDPL05
		55 Gal Metal Drum	231WORLD55M
		55 Gal UV Drum	231WORLD55UV
		270 Gal Tote	231WORLD270
		Bulk	231WORLD01
Methanol, ACS/BP/EP/NF/USP	67-56-1	4 Liter Amber Glass	339WORLD4CS4L
		5 Gal Poly Pail	339WORLDPL05
		55 Gal Metal Drum	339WORLD55M
		55 Gal UV Drum	339WORLD55UV
		200 Liter SSRC	339WORLD200SSRC
		270 Gal Tote	339WORLD270
		1250 Liter SSRC	339WORLD1250SSRC
		350 Gal Tote	339WORLD350
n-Propyl Alcohol, ACS/EP/FCC	71-23-8	1 Pint Amber Glass	334WORLD1PINT
		4 Liter Amber Glass	334WORLD4CS4L
		55 Gal Metal Drum	334WORLD55M
Propylene Glycol, EP/JP/USP/FCC	57-55-6	55 Gal Poly Drum	369WORLD55M
		260 Gal Tote	369WORLD260
		Bulk	369WORLD01-IRD
Water, EP/JP/USP	7732-18-5	5 Gal Cube	232WORLD5GAL
		55 Gal Poly Drum	232WORLD55M
		55 Gal UV Drum	232WORLD55UV

Compendial testing: BP (British Pharmacopoeia), EP (European Pharmacopoeia), JP (Japanese Pharmacopoeia), NF (National Formulary), USP (United States Pharmacopoeia)

\*Antibiotic-free manufacturing available by request



# Ready to simplify your global solvent supply?

Contact your Greenfield Global team today!



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