



BIOCIDES



# ISP Biocides for Plastics

Antimicrobials for the full range of resins and wood plastic composites

## Solid form biocide products

Product name	Description/ Appearance	Max. temp. °C	Use-level [weight-%] in finished product	Application/Compatibility in plastics	Highlights/Benefits
PlastiGuard® 420 PE	Pellets with 20% IPBC	220°C	0.25 to 2.5	Polyolefins (PP, PE); including WPC (PP, PE)	<ul style="list-style-type: none"> <li>• Favorable regulatory profile</li> <li>• Extremely effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Zone of inhibition</li> <li>• Helps control surface mildew on polyolefins</li> <li>• Free of arsenic and heavy metal</li> <li>• Safe and easy to handle on site</li> <li>• Dust free</li> </ul>
PlastiGuard 420 VP	Pellets with 20% IPBC	220°C	0.25 to 2.5	Flexible PVC, Plastisol, Rigid PVC	<ul style="list-style-type: none"> <li>• Favorable regulatory profile</li> <li>• Extremely effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Free of arsenic and heavy metals</li> <li>• Superior efficacy against "pink-stain"</li> <li>• Safe and easily handled on site</li> <li>• Dust free</li> <li>• Cost effective</li> </ul>
PlastiGuard 11 PE	Pellets with 20% Folpet	220°C	0.5 to 3.75	Polyolefins (PP, PE), including WPC	<ul style="list-style-type: none"> <li>• Long-lasting protection</li> <li>• Extremely effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Excellent leaching resistance</li> <li>• Superb UV resistance</li> <li>• Easy dosing</li> <li>• Dust free</li> </ul>
PlastiGuard 11 VP	Pellets with 20% Folpet	220°C	0.5 to 3.75	Flexible PVC, Plastisol, Rigid PVC, Elastomers	<ul style="list-style-type: none"> <li>• Long-lasting protection</li> <li>• Extremely effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Excellent leaching resistance</li> <li>• Superb UV resistance</li> <li>• Superior efficacy against "pink stain"</li> <li>• Free of arsenic and heavy metal</li> <li>• Easy dosing</li> <li>• Dust free</li> </ul>
PlastiGuard 11 SAN	Pellets with 10% Folpet	220°C	1.0 to 7.5	Styrenics, Elastomers, ABS	<ul style="list-style-type: none"> <li>• Long-lasting protection</li> <li>• Extremely effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Excellent leaching resistance</li> <li>• Superb UV resistance</li> <li>• Free of arsenic and heavy metals</li> <li>• Safe and easy handling on site</li> <li>• Dust free</li> </ul>
PlastiGuard 11 TPU	Pellets with 10% Folpet	220°C	1.0 to 7.5	Polyurethanes	<ul style="list-style-type: none"> <li>• Long-lasting protection</li> <li>• Extremely effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Excellent leaching resistance</li> <li>• Superb UV resistance</li> <li>• Free of arsenic and heavy metals</li> <li>• Safe and easy handling on site</li> <li>• Dust free</li> </ul>
PlastiGuard 11 W	Wax lubricant pellets with 20% Folpet	220°C	0.5 to 3.75	Polyolefins (PP, PE), including WPC	<ul style="list-style-type: none"> <li>• Long-lasting protection</li> <li>• Extremely effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Excellent leaching resistance</li> <li>• Superb UV resistance</li> <li>• Superior efficacy against "pink stain"</li> <li>• Free of arsenic and heavy metals</li> <li>• Safe and easy handling on site</li> <li>• Dust free</li> </ul>

## Solid form biocide products (cont...)

Product name	Description/ Appearance	Max. temp. °C	Use-level [weight-%] in finished product	Application/Com- patibility in plastics	Highlights/Benefits
PlastiGuard 11 WP	Wax lubricant pellets with 20% Folpet	220°C	0.25 to 3.75	Rigid PVC, including WPC	<ul style="list-style-type: none"> <li>• Custom blend available</li> <li>• Long-lasting protection</li> <li>• Extremely effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Excellent leaching resistance</li> <li>• Superb UV resistance</li> <li>• Free of arsenic and heavy metal</li> <li>• Easy dosing</li> <li>• Dust free</li> </ul>
PlastiGuard 641 PE	Pellets with 20% combination of IPBC + Folpet	220°C	0.25 to 2.0	For all Polyolefins (PP, PE); including WPC (PP, PE)	<ul style="list-style-type: none"> <li>• Favorable regulatory profile</li> <li>• Effective against fungi, algae and bacteria</li> <li>• Helps control surface mildew on polyolefins</li> <li>• Free of arsenic and heavy metal</li> <li>• Safe and easy to handle on site</li> <li>• Dust free</li> </ul>
PlastiGuard 641 VP	Pellets with 20% combination of IPBC + Folpet	220°C	0.25 to 2.0	Flexible PVC, Plastisol, Rigid PVC	<ul style="list-style-type: none"> <li>• Favorable regulatory profile</li> <li>• Effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Free of arsenic and heavy metals</li> <li>• Superior efficacy against "pink-stain"</li> <li>• Safe and easily handled on site</li> <li>• Dust free</li> <li>• Cost effective</li> </ul>
Fungitrol® 11 BP**	Powder biocide with 50% Folpet	220°C	0.2 to 1.5	Polyurethanes, Styrenics, Flexible PVC, Plastisol, Rigid PVC, Polyolefins, Polycarbonate, Acrylics	<ul style="list-style-type: none"> <li>• Broad plastics compatibility</li> <li>• Excellent antifungal</li> <li>• Algicidal and antibacterial properties</li> <li>• Excellent leach and weathering resistance</li> <li>• Easy dosing</li> <li>• Long-lasting protection</li> <li>• Non-hygroscopic</li> <li>• Superior efficacy against "pink stain"</li> <li>• Free of arsenic and heavy metal</li> <li>• Phthalate-free</li> </ul>
Fungitrol 400 EZ-Flow**	Free-flow powder with 95% IPBC	180°C	0.05 to 0.5	Flexible PVC, Plastisol, Rigid PVC	<ul style="list-style-type: none"> <li>• Favorable environmental profile</li> <li>• Available Oekotex-Version</li> <li>• Long-lasting protection</li> <li>• Effective against fungi</li> <li>• Algicidal and bactericidal properties</li> <li>• Superior efficacy against "pink-stain"</li> <li>• Zone of inhibition</li> <li>• Easy dosing cost efficient</li> </ul>
Fungitrol 11	Powder biocide with 95% Folpet	190°C	0.1 to 0.75	Flexible PVC, Rigid PVC, Polyolefins (PP; PE), PS, ABS, Urethanes-Coatings	<ul style="list-style-type: none"> <li>• Highly effective against micro-organisms</li> <li>• Many carrier options</li> <li>• Compatible with most plastics</li> <li>• High leach and weathering resistance</li> <li>• Effective against "pink staining"</li> </ul>

\* Product available only in Europe (EMEA)

\*\* EPA registration pending

## Liquid form biocide products

Product name	Description/ Appearance	Max. temp. °C	Use-level [weight-%] in finished product	Application/Com- patibility in plastics	Highlights/Benefits
Fungitrol 10L**	Liquid biocide with 10% IPBC in DIDP	190°C	0.5 to 5.0	Flexible PVC, Plastisol	<ul style="list-style-type: none"> <li>• Favorable regulatory profile</li> <li>• Effective against fungi, algae and bacteria</li> <li>• Helps control surface mildew on polyolefins</li> <li>• Free of arsenic and heavy metal</li> <li>• Effective against "pink-staining"</li> <li>• Cost effective</li> </ul>
Fungitrol 11L**	Liquid dispersion with 10% Folpet in DIDP	200°C	0.5 to 5.0	Flexible PVC, Plastisol	<ul style="list-style-type: none"> <li>• Excellent antifungal properties</li> <li>• Long weatherability</li> <li>• Superior UV stability</li> <li>• Effective against "pink-staining"</li> <li>• Easy dosing</li> <li>• Long-lasting protection</li> <li>• Leach resistant</li> <li>• Excellent bacterial protection</li> <li>• Will not affect color or transparency</li> </ul>
Fungitrol 73L**	Liquid combination dispersion of IPBC and Folpet in DIDP	200°C	0.25 to 2.5	Flexible PVC, Plastisol	<ul style="list-style-type: none"> <li>• Excellent antifungal properties</li> <li>• Long weatherability</li> <li>• Superior UV-stability</li> <li>• Effective against "pink-staining"</li> <li>• Easy dosing</li> <li>• Long lasting- leach resistant</li> <li>• Excellent bacterial protection</li> <li>• Will not affect color or transparency</li> </ul>
Fungitrol PA 10*	Liquid biocide with 10% OIT in DIDP	200°C	0.5 to 4.0	Flexible PVC, Plastisol	<ul style="list-style-type: none"> <li>• Antifungal properties</li> <li>• For interior use</li> <li>• Long-lasting protection</li> </ul>
Fungitrol T10*	Liquid biocide with 10% DCOIT in DIDP	200°C	0.5 to 4.0	Flexible PVC, Plastisol	<ul style="list-style-type: none"> <li>• Antifungal properties</li> <li>• Long weatherability</li> <li>• Superior UV stability</li> <li>• Long-lasting protection</li> <li>• Leach resistant</li> </ul>
Fungitrol DN 20*	Liquid biocide with 20% BBIT in DIDP	200°C	0.5 to 4.0	Flexible PVC, Plastisol	<ul style="list-style-type: none"> <li>• Excellent antifungal properties</li> <li>• Long weatherability</li> <li>• Superior UV stability</li> <li>• Long-lasting protection</li> <li>• Leach resistant</li> </ul>

\* Product available only in Europe (EMEA)

\*\* EPA registration pending

For more information, contact us at [plastics@ispcorp.com](mailto:plastics@ispcorp.com)

To find an ISP sales office in your country visit: [ispcorp.com](http://ispcorp.com)

**FRANCE** Tel: +33 (0) 1 49 93 21-58/59

**UK** Tel: +44 (0) 207 519-5054

**SINGAPORE** Tel: +656 223-3778

**GERMANY** Tel: +49 (0) 2236 9649-260

**USA** Tel: +1 877 477-5676

**BRAZIL** Tel: +55 11 3649-0420

Use biocides safely. Always read the label and product information before use. Product Code: ISP-PCH6104-10/2010

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