

UMS Inks

Universal Mild Solvent Inks

- Sales Info



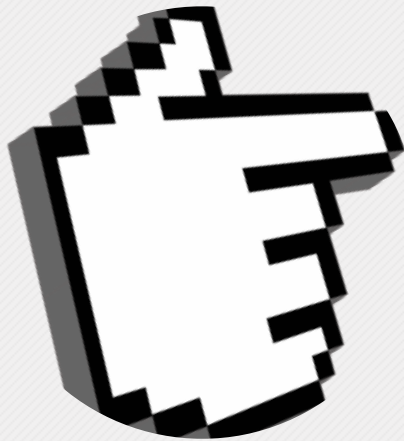
> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

Universal Mild Solvent Inks

| UMS Inks



- Mutoh's **4th generation** mild solvent inks
(replace Mutoh MS & MS+ inks)
- **Unique ink chemistry** : specifically formulated for Mutoh & only available from Mutoh
- **Dual compatibility** : installed-base Mutoh mild/eco solvent printers & new ValueJet range

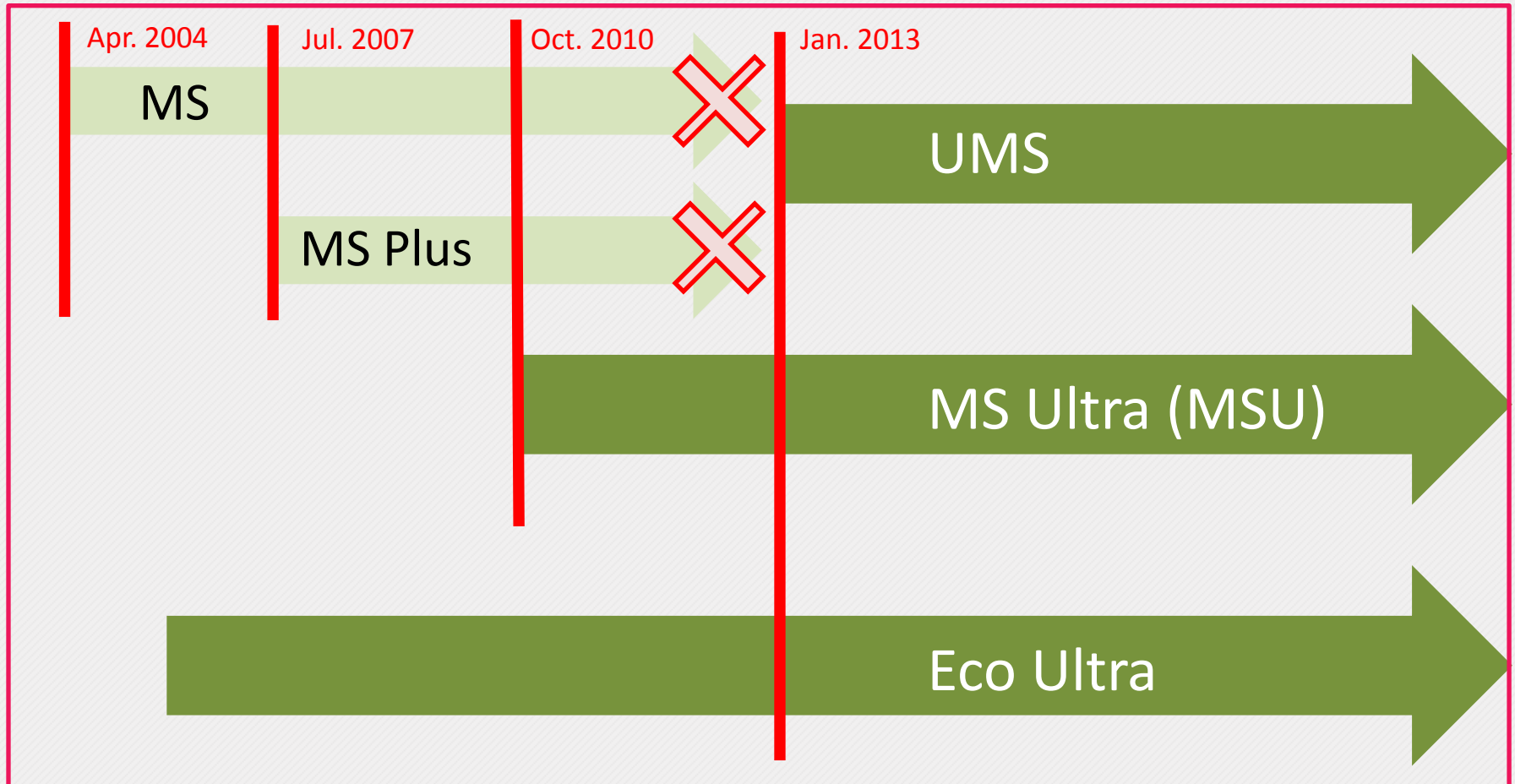
> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

Universal Mild Solvent Inks

| UMS Inks



> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

Target Public / Applications

| UMS Inks



- Volume-oriented users
- Bulk ink system recommended for users with more than 3000 m²/year
- Prints on a wide range of uncoated and coated substrates
- Exterior & interior prints
- Outdoor UV resistance – up to 3 years (*)
- Specifically targeted at typical sign & display applications :
 - Posters, banners, backlit signage, fleet signage, ...
 - Wall coverings, fine art, etc..

(*) without lamination

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

Ink Volumes

| UMS Inks

- 440 ml cassettes or 1 L bulk ink bottles
- Liter bottles can be used in combination with Mutoh's optional Bulk Ink System



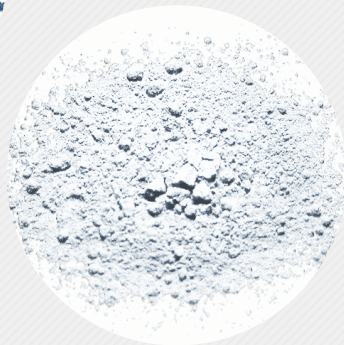
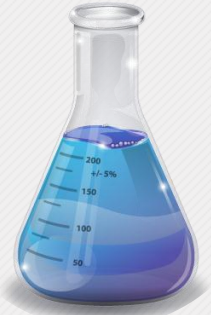
> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

State of the Art Ink Technology

| UMS Inks

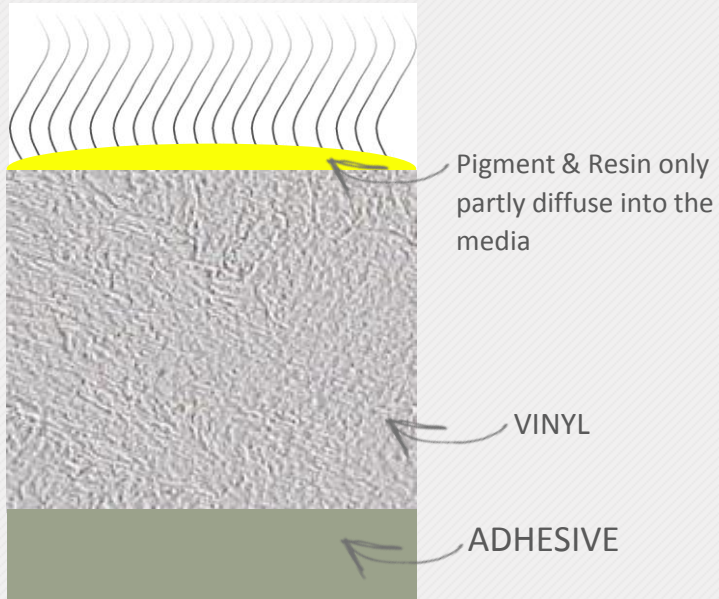


Best-in-class ingredients & fully compliant with the latest & most stringent health & safety regulations :

- Highest quality **colour pigments**
- New concept : **resin mix** instead of single resin
- New generation of **milder & non-aggressive solvents**
- Resin / solvent mix fully adapted to new REACH regulations with regards to PVC chemistries

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only



Cross section of uncoated vinyl

New Generation of milder & non-aggressive solvents

- Compared to “classic” - more aggressive - solvent inks, the UMS inks will only **partially** diffuse into the media
- Even with regulations getting more strict, Mutoh UMS inks get **Xi** instead of Xn classification



High Quality Colour Pigments - Unique Nano-Size Grinding Technology

- For long term outdoor durability
- For a wide colour gamut
- No clogging
- Reduced maintenance

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

State of the Art Ink Technology

Nano Size Pigment Particles

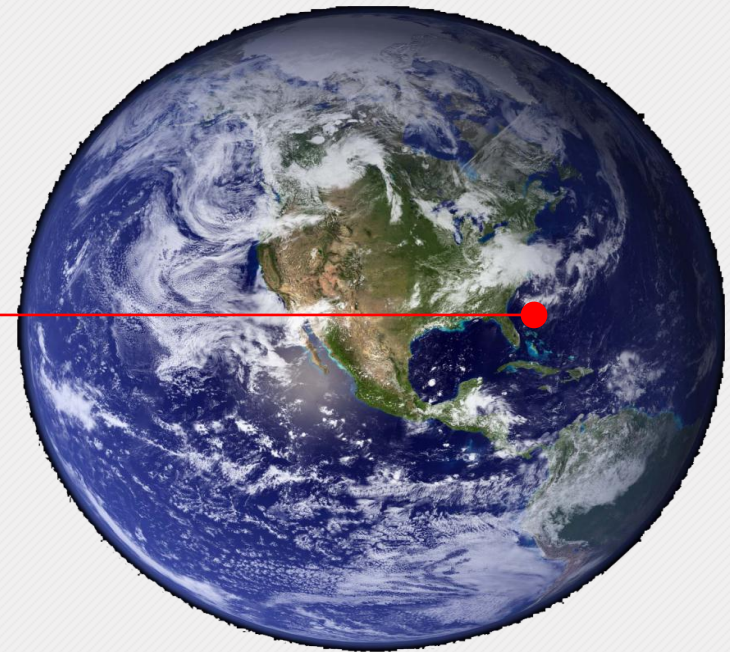
Pigment grinding to nano-size level for optimum jettability



The size of a
nanoparticle is ...



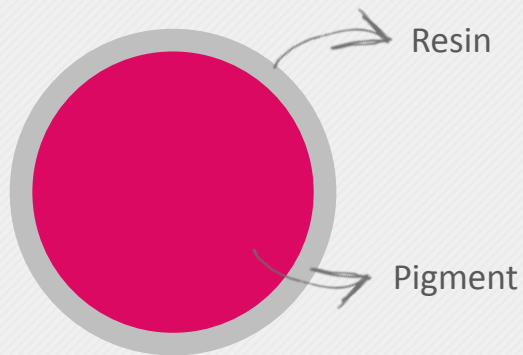
... to a football
as the size of a football is ...



... to the world

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only



New Mix of Resins

Dual function :

- Individual encapsulation (coating) of each colour pigment
→ **outdoor durability / gloss preservation / scuff / abrasion & chemical resistance**
- Enable **optimum adhesion** of the pigments to the substrate and create a **uniform & smooth ink layer**

UMS Inks

Highest Level of User Comfort

| UMS Inks



- Virtually odourless in the print environment
- Low smell of finished prints
- No daily maintenance required (only weekly)
- Xi classification
- Shelf life 18 months
- Power down periods of up to 1 month possible without washing

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

Durable Prints

| UMS Inks



- Outdoor durability up to 3 years (*)
- Excellent application 'scuff': minimal superficial damage during application
- Resistance against alcohol-based cleaners better than Eco Ultra & MS Ultra, similar to MS & MS Plus inks
- Colour gamut better than Eco Ultra & MS Ultra inks

** : For heavy-duty applications where mechanical stress is involved (floor & vehicle graphics), lamination is required. Stabilisation is required prior to lamination.*

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

Current Mutoh ValueJet Range

- ValueJet 1204
- ValueJet 1324
- ValueJet 1624
- ValueJet 1638
- ValueJet 2638

Installed-Base Mutoh printer models

- ValueJet 1304
- ValueJet 1604
- ValueJet 1614
- Rockhopper II / Rockhopper 3 (Extreme)
- Spitfire 65/90/100 (Extreme)
- Blizzard 65/90

UMS Inks

Retail Pricing / Cost per m²

| UMS Inks

Ink Volume	440 ml cassette	1000 ml bottle
Ink Colours	CMYK	CMYK
Retail Price	69 €uro	99 €uro
Ink Cost / m ² (*)	1.25 €uro	0.79 €uro

(*) Average ink consumption 8 ml/m² @ 720x720 dpi on uncoated PVC.
Coverage 67%.



> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

| UMS Inks

Overview Compatibility / Order Codes

VJ-1204 VJ-1304 VJ-1604	RJ80EMS-100-BK /CY/MA/YE
VJ-1614	RJ80EMS-44-BK /CY/MA/YE RJ80EMS-100-BK /CY/MA/YE
VJ-1324	VJ-LSINK1-BK1L /CY/MA/YE
VJ-1624 VJ-1638 VJ-2638	VJ-LSINK1-BK44 /CY/MA/YE VJ-LSINK1-BK1L /CY/MA/YE
<u>ECO ULTRA SETUP</u> Rockhopper 3 (Extreme) Blizzard 65/90 Spitfire 100 (Extreme)	RJ80EMS-44-BK /CY/MA/YE RJ80EMS-100-BK /CY/MA/YE
<u>MILD SOLVENT SETUP</u> Spitfire 65/90 (Extreme) Blizzard 65/90 Spitfire 100 (Extreme)	RJ80UMS-44-BK /CY/MA/YE RJ80UMS-100-BK /CY/MA/YE



44 = 440 ml ink cassettes

1L / 100 = 1 liter ink bottles

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

Bulk Ink Systems

| UMS Inks

VJ-1204 VJ-1304 VJ-1324 VJ-1604	4 bottles / 4 cassettes For horizontal use with float detection & chip readers	1 x ZMY-08907 1 x 1 x 1 x
VJ-1614 VJ-1624 VJ-1638 VJ-2638	4 bottles / 4 cassettes For vertical use with chip readers	1 x ZMY-08906 1 x 2 x 2 x
Rockhopper 3 (Extreme) Spitfire 65/90 (Extreme) Blizzard 65/90 Spitfire 100 (Extreme)	4 bottles / 8 cassettes For horizontal use with float detection / no chip readers	1 x ZMY-08910 1 x 1 x 2 x



> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

| UMS Inks

Startup of a New ValueJet Printer with UMS inks



Step 1 : First Wash Cycle

Load Eco Ultra cleaning cassettes - shipped standard with the printer unit

Step 2 : Load UMS Inks

Cassettes or bottles (with BIS system)

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

UMS Inks

| UMS Inks

Head Warranty For New Printers Started Up With UMS ink



- With UMS ink, you benefit from the same warranty conditions as when using Mutoh Eco Ultra ink
- 1 year or 6×10^9 drops per nozzle, whatever comes first

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

Universal Mild Solvent Ink

| UMS Ink

How to move from MS, MS Plus, MSU to Universal Mild Solvent ?



- Switch from MS, MS Plus, MSU to UMS is very easy
 - No flushing liquid required
 - MSU is 100 % compatible with UMS



> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

Ink Conversion Possibilities ValueJet Series

VJ-1204 VJ-1304 VJ-1324 VJ-1604 VJ-1614 VJ-1624 VJ-1638 VJ-2638	Eco Ultra → UMS	MSU → UMS
--------------------------------------------------------------------------------------	-----------------	-----------

The above table shows the ink conversion possibilities which are technically possible.

It is important to note that Mutoh Eco Ultra & MS Ultra inks remain available ! Therefore, Mutoh will not specifically recommend the above-mentioned ink conversion options.

UMS Inks

Ink Conversion Options

| UMS Inks

Rockhopper 3 (Extreme)

Eco Ultra → UMS

Spitfire 65/90 (Extreme)
Blizzard 65/90
Spitfire 100 (Extreme)

MS/MS+ → UMS

Eco Ultra → UMS

MSU → UMS

- *Mutoh MS & MS+ inks have been discontinued in January 2013. For all installed-base printers currently loaded with MS/MS+ inks, Mutoh UMS inks can be loaded.*
- *It is important to note that Mutoh Eco Ultra & MS Ultra inks remain available ! Therefore, Mutoh will not specifically recommend the ink conversion options from Eco Ultra to UMS and from MS Ultra to UMS.*

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only

Thank you for your attention !

> Sign & Display

© MUTOH Belgium nv - 04/2013 - For Mutoh Authorised Resellers Only