

- Section I:
- Section II:
- Section III:
- Section IV:
- Section V: Q & A

가



Apr.10, 2003



- Ethical
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- Over-the-Counter
 -
 -
- Ophthalmic
 -
 -
- Nutraceutical
 -
 -
 -



Growth Drivers:

-
-
-

Packaging Implications:

-
-



가

4% 가

Growth Drivers:

-
-

Packaging Implications:

- shelf appeal()
-



Growth Drivers:

-
-

Packaging Implications:

- shelf appeal



-

13.3% 가(US)

Growth Drivers:

-

, 가

가

-

가

Packaging Implications:

-



Ethical - prescription drugs

- 가
- - migration
- - 100% , 0%
- BgVV FDA
- -
- “no label look”
- - (wet out)
-

Over-the-Counter and Nutraceutical:

-
-
-
-
-
-
- “no label look”

가

가

Ophthalmic

- ,
 - booklet 가 leaflet
- , lot No.
- migration
 - 가 HDPE
-
-
-
-
- 가

- “No label look”

-

- 가

-

- Migration

- 100%

0%

- Dry and wet non-fatty food

BgVV

, FDA(175.105)

-

Zero%!



- -
- - Autoclaving
 - Ethylene Oxide (EtOx)
 - Gamma procedures
- 가
 -
 - 가
 -



• Migration

-

-

•

.(tackifiers, resins)

- 100%

- BgVV FDA

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migration

:

-

- HDPE

(ex. ,)

• Migration

-

risk 가!

migration

가



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-

US & Canada: **FDA** (Food and Drug Administration)

Europe : **BgVV** -Official German food approval

Level A –

Level B - dry, moist, non-fatty

Level C –

Note:

!

(no edge lifting):

- stiffness
-

30mm

!

:

- LW Paper (52 μm , 60 g/m^2)

- PP60 and PET30, 36

:

-
-



3

1) Autoclaving:

(20 minutes at 121°C)

-
- PE 121°C
- PP PET가

2)

가 (1-2 hours at 50 - 60°C)

EtOx gas

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- PP PE

3)

(level of 25 Kgray)

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PET 30, 36 μm transparent And PET 50 μm transparent



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“No label

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look”

“wet out”

•

가

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- **MC Primecoat - S451 - BG40br**

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- **LW – S3060 - BG45wh/PET30**

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- **Fasson Transfer Plus - S2000- BG40br**

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- **Fasson Thermal TOP - S2045 - BG40br**

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- **LCJ Flex - S2100 - AT45**

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- Roll-to-sheet 가

Bleeding

bleeding

- **PET 36- S697 - PET36**

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- UV
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- **PE85 TOP WHITE - S692N - BG45wh**

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- **PP Top Trans. - S692N – PET50/BG45wh**

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- **Primax 250 - S692N - BG 45wh**

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FASSON®



- **Liability issues**
- **Quality assurance**
“first opening indicators”
- **Counterfeit pharmaceutical products**

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Brand Protection

-
- Watermark



Tamper Evidence

- (VOID)
-
- II

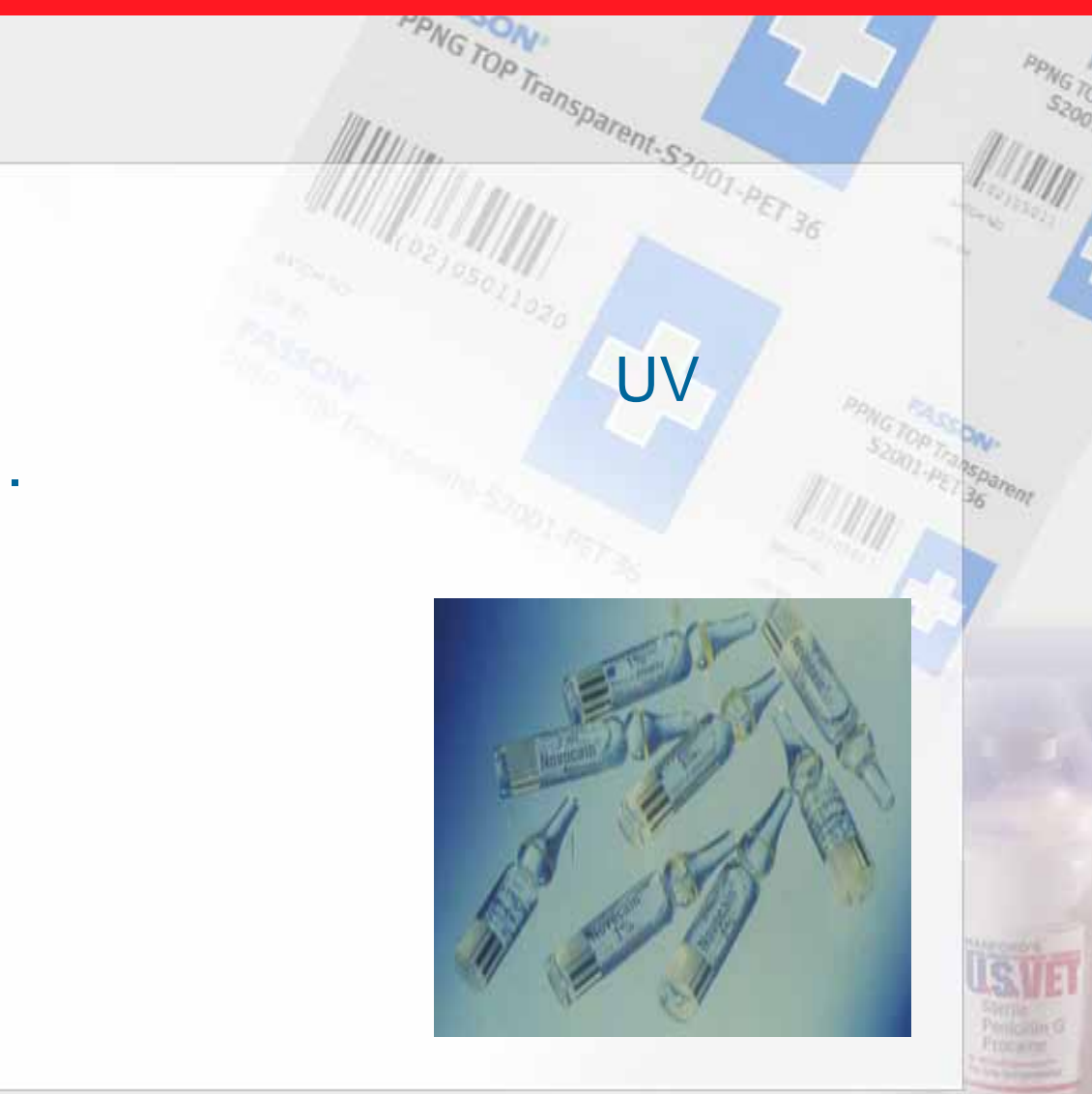


Luminescence

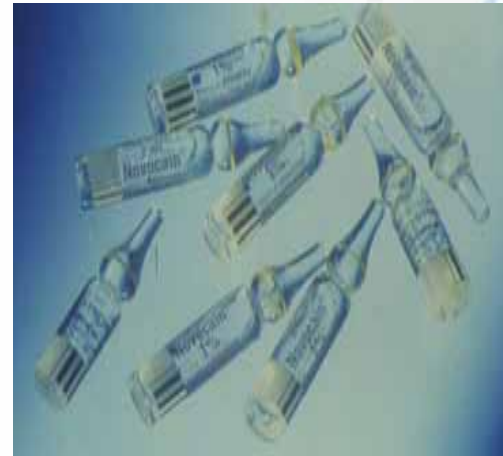
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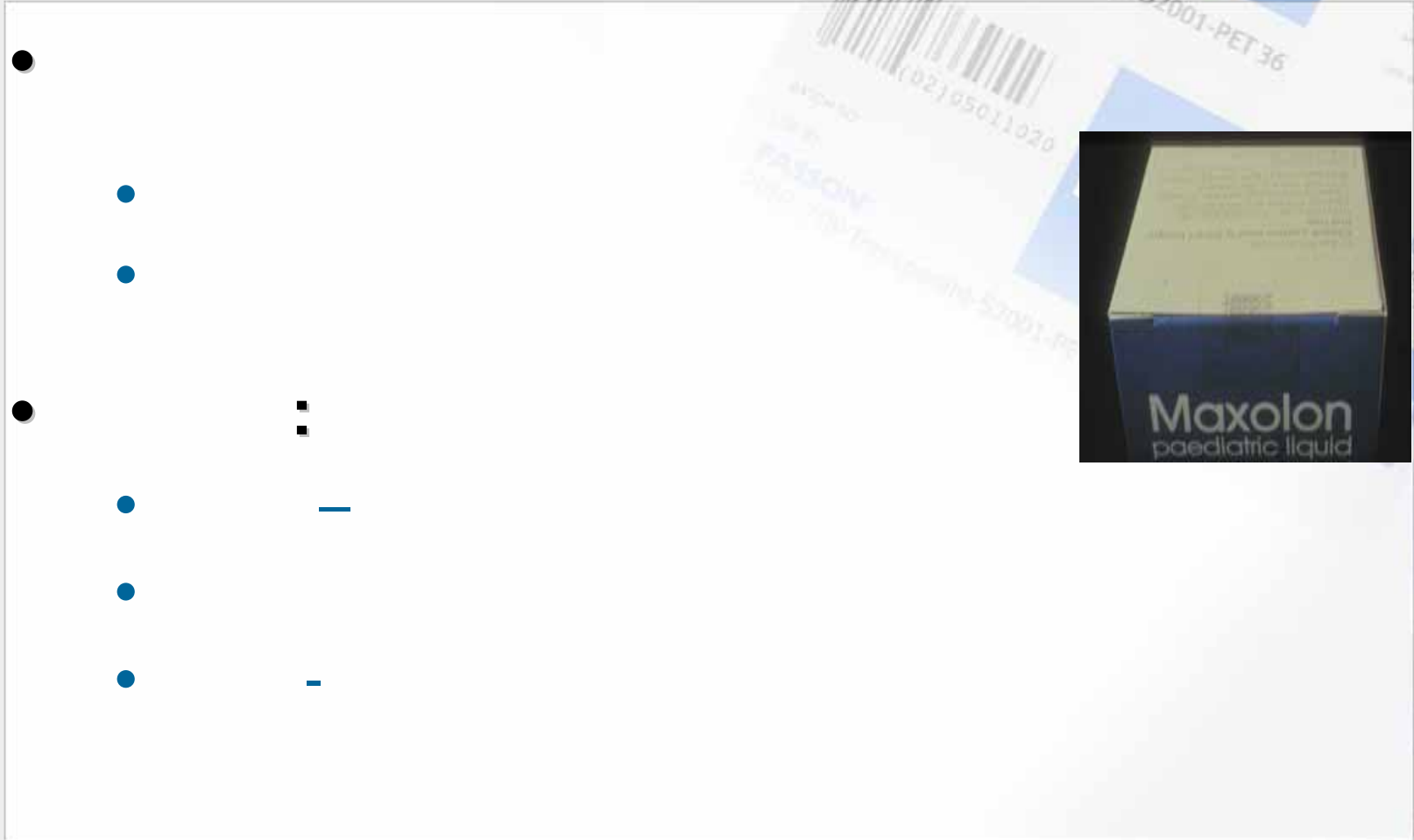
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UV





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**AVERY
DENNISON**