



Permanent ink

Stable Suspension

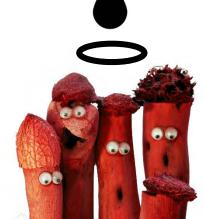


Stable Emulsion

Proven in 45 countries

Black Eye<sup>™</sup> is a sterile, non-pyrogenic ink designed to be used as an endoscopic marker for marking polyps and lesions in the gastrointestinal tract.

It is supplied syringe contain 5ml of the marker.



# "Permanent ink

India ink preparations contain shellac, phenol, and ammonia that, even in dilute solutions, should be avoided. Black eye's biocompatible, non-toxic formulation contains no India ink.



Carbon black is the name of a common black pigment, traditionally produced from charring organic materials such as wood or bone.



Carbon black lasts for more than 10 years in the body !!!

- [1] Shatz, Burton A., et al. "Long-term safety of India ink tattoos in the colon." *Gastrointestinal endoscopy* 45.2 (1997): 153-156. *Summary: Tattoos on 55 patients did not disappear in the body for 117 months.*
- [2] Fennerty, M. Brian. "Tissue staining (chromoscopy) of the gastrointestinal tract." *Canadian Journal of Gastroenterology and Hepatology* 13.5 (1999): 423-429.
- [3] The establishment and clinical appliance of technique of mucosa marking targeting biopsy.Sun L, Si J, Chen S, Liu W, Zhao L, Wang L, Hepatogastroenterology. 2009 Jan-Feb; 56(89):59-62
- [4] Endoscopic marking: an adjunct to laparoscopic gastrointestinal surgery. Beretvas RI, Ponsky J., Surg Endosc. 2001 Oct; 15(10):1202-3
- [5] Safety of preoperation endoscopic tattoo with India ink for identification of colonic lesions. McArthur CS, Roayaie S, Waye JD., Surg Endosc. 1999 Apr;13(4):397-400

## "Stable Emulsion "

#### Zeta potential Test

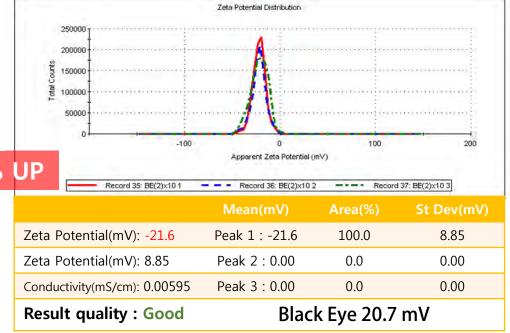
**Performance 6.2% UP** 

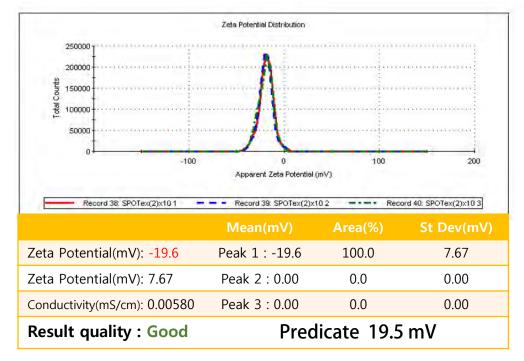
**Emulsion** 

An emulsion is a mixture of two or more liquids that are normally unmixable. Milk is an emulsion of fat and water.



Poor emulsion can choke the tube of the syringe or body fluid !!!



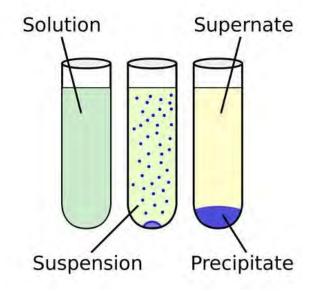


# "Stable Suspension

# Suspension

Suspension is a heterogeneous mixture that contains solid particles sufficiently large for sedimentation.

Poor suspension can make the solution separated, which leads to unstable marking !!!

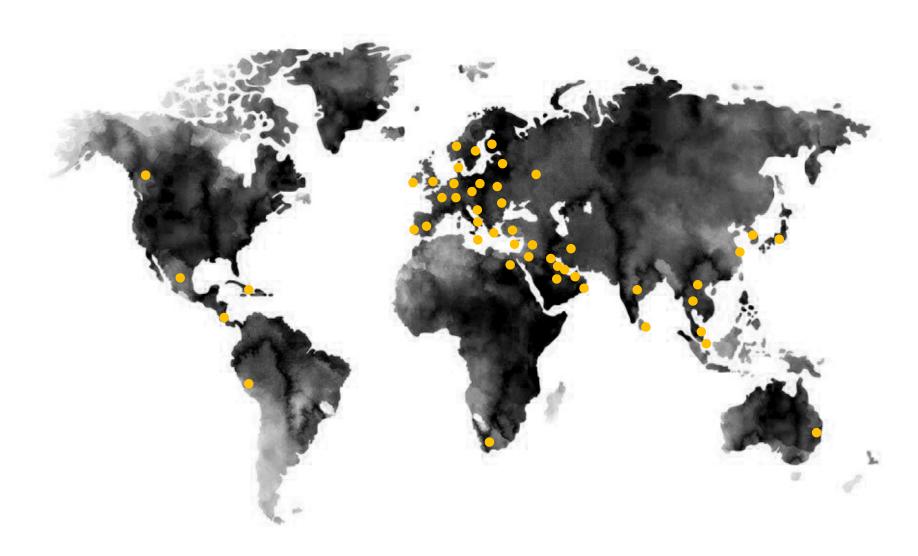


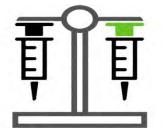


You do not need shake well before use !!!

## "Proven in 45 countries

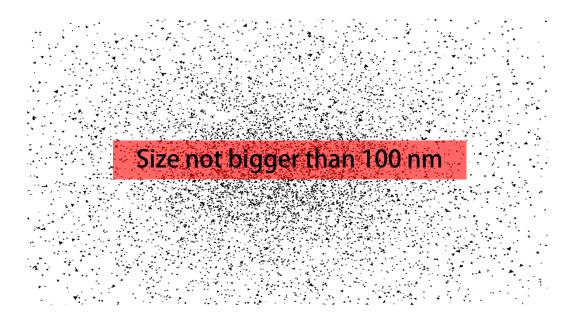






## Improved Endoscopic Marker!

### **Particle Size Distribution**



Test report (BE & Spot) by
The Standard / Lee SeungHee

Black Eye 0.85% Predicate 1.96%

The particle of Carbon black not more than 50nm can be toxic in the body !!!

[1] Sahu, Devashri, G. M. Kannan, and R. Vijayaraghavan. "Carbon black particle exhibits size dependent toxicity in human monocytes." *International journal of inflammation* 2014 (2014).





Marking Pancreatic Lesions

Double Balloon Endoscopy

Marking Colon Resections

Highlight Lymph Nodes

Marking Areas of Suspicion

Barrett's Esophagus

Marking Stomach Lesions

Post Polypectomy Surveillance





### THE STANDARD CO.,LTD.

#120 Gunpocheomdansaneop 2-ro,

Gunpo-si, Gyeonggido, 15880, Korea

**Tel**: +82-2-838-5533

e-mail: kn.kim@thestd.co.kr

www.thestandard.co.kr



www.lasermed.ch

#### **U.S.** Distributors

Xentura Medical, Inc. sales@xentura.com / 480- 839-9600 AZ, CA, NV, UT, CO, TX, HI, OR, WA, ID, MT, WY, NM, AK

SMD Wynne Corp. sales@smdwynne.com / 800- 324-6090 IL, OH, IN, TN, WI, MN, KY, IA, KS, WV, SD, ND, NE, MO

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Endo Surgical Source, LLC. sales@endoss.com / 717- 503-7012 VA, Wash. DC, MD, PA, DE, NJ, NY, CT, RI, VT, NH, ME, MA