

Product           Black Eye Endoscopic Marker  
 Revision date    26 March 2019  
 Revision          4



## Safety Data Sheet (SDS)

### 1. Product and Company Information

**Product name**                           Black Eye Endoscopic Marker  
**Company**                                 The Standard Co. Ltd.  
**Address**                                 #120, GunpoCheomdansaneop 2-ro, Gunpo-si, Gyeonggi-do, 15880, Republic of Korea  
**Telephone**                             +82 2 838 5533  
**Fax**                                        +82 2 828 5523  
**Website**                                 www.thestandard.co.kr  
**Recommended use of the chemical and restrictions on use**  
   Recommended use                     Materials for medical treatment  
   Restrictions on use                    No data available

### 2. Hazards Identification

#### Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Physical hazard                         Not applicable  
 Health hazard                          Not applicable  
 Environment hazard                    Not applicable

#### Label elements including precautionary statements

Symbol / Signal word                 Not applicable  
 Hazard statements                     Not applicable  
 Precautionary statement             Not applicable

#### NFPA Rating

Health                                    0  
 Flammability                            0  
 Reactivity                              0  
 Water reactivity                        0

### 3. Composition / Information on Ingredients

Ingredients	CAS No.	EINECS No.	Conc. %
Water for injection	7723-18-5 From *US NLM	231-791-2 From **ECHA	99.678%
Glycerin	56-81-5	200-289-5	0.150%
Polysorbate 80	9005-65-6	500-019-9	0.020%
Benzyl alcohol	100-51-6	202-859-9	0.050%
Carbon black	1333-86-4	215-609-9	0.10%
Siliconized silica	67762-90-7	614-122-2	0.002%

\* UC NLM : U.S. National Library of Medicine, <http://chem.sis.nlm.nih.gov/chemidplus/>

\*\* ECHA : European chemical agency, <http://echa.europa.eu/>

**4. First aid measures**

<b>In case of eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>In case of skin contact</b>	No data available
<b>If inhaled</b>	If breathed in, move person into fresh air.
<b>If swallowed</b>	Never give anything by mouth to an unconscious person.
<b>Other medical attention</b>	Medical personnel should be aware of the protective measure of the substance.

**5. Fire-Fighting measures**

<b>Flammable properties</b>	
Flash point	No flash occurred under 250°C (Cleveland open cup)
Autoignition	No spontaneous combustion under 200°C
<b>Suitable extinguisher</b>	Water spray, alcohol-resistant foam, dry chemical, carbon dioxide
<b>Specific hazards arising from the chemical</b>	No data available
<b>Special protective equipment for fire-fighters</b>	Wear self contained breathing apparatus for fire fighting if necessary.

**6. Accidental release measures**

<b>Personal precautions</b>	Avoid contact with eyes.
<b>Environmental precautions</b>	No data available
<b>Methods and materials for containment and cleaning up</b>	Keep in suitable, closed for disposal.

**7. Handling and storage**

<b>Precautions for safe handling</b>	Avoid contact with eyes.
<b>Condition for safe storage</b>	Keep container tightly closed.

**8. Exposure control / Personal protection****Components with workplace control parameter**

<b>KOSHA :</b>	<b>Chemical Name</b>	<b>TWA</b>	<b>STEL</b>
	Glycerin	10 mg/m <sup>3</sup>	-
	Carbon black	3.5 mg/m <sup>3</sup>	-
	Siliconized silica	10 mg/m <sup>3</sup>	-

<b>ACGIH :</b>	<b>Chemical Name</b>	<b>TWA</b>	<b>STEL</b>
	Carbon black	3 mg/m <sup>3</sup>	-

**Appropriate engineering controls** No data available

<b>Personal protective equipment</b>	
Respiratory protection	No data available
Eye protection	Protective goggles
Hand protection	No data available
Skin and body protection	No data available

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**9. Physical and Chemical properties**


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<b>State</b>	Liquid at 20 °C	
<b>Flash Point</b>	No flash occurred under 250 °C (Cleveland open cup)	
<b>Autoignition temperature</b>	No spontaneous combustion under 200 °C	
<b>pH</b>	5.2 ~ 6.2 at 20 °C	
<b>Water solubility</b>	Soluble at 20 °C	
<b>Relative density</b>	1.0 at 20 °C	
<b>Oxidizing properties</b>	No oxidizing hazard	※ UN TDG test & criteria – Test O1
<b>Flammable properties</b>	No data available	
<b>Explosive properties</b>	No data available	
<b>Melting range</b>	No data available	
<b>Boiling point (Initial)</b>	> 97 °C	
<b>Evaporation rate</b>	No data available	
<b>Vapour pressure</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>Partition coefficient (n-octanol/water)</b>	No data available	
<b>Viscosity</b>	< 3.0 mPa · s (cP) at 20 °C	
<b>Lower explosion limit / Upper explosion limit</b>	No data available	
<b>Freezing Point</b>	-4.8 °C	

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**10. Stability and Reactivity**


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<b>Chemical stability</b>	Stable under recommended
<b>Conditions to avoid</b>	No data available
<b>Materials to avoid</b>	Strong oxidizing agents
<b>Hazardous decomposition products</b>	Carbon oxides

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**11. Toxicological Information**


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<b>Acute toxicity</b>				
Oral	rat	LD50	> 2,000 mg/kg	※ From US NLM / ECHA
Inhalation	rat	LD50	No data available	
Skin	rabbit	LD50	No data available	
<b>Skin Irritation</b>			Irritating (Siliconized silica)	※ From US NLM / ECHA
<b>Eye Irritation</b>			Irriting (Benzyl alcohol, Siliconized silica)	※ From US NLM / ECHA
<b>Respiratory sensitization</b>			No data available	
<b>Skin sensitization</b>			May cause an allergic skin reaction (Benzyl alcohol)	※ From US NLM / ECHA
<b>Germ cell mutagenicity</b>			No data available	
<b>Carcinogenicity</b>			Suspected of causing cancer (Carbon black)	※ From US NLM / ECHA
<b>Reproductive toxicity</b>			Suspected of damaging fertility Or the unborn child (Benzyl alcohol)	※ From US NLM / ECHA

Specific target organ toxicity – single exposure (GHS)	No data available
Specific target organ toxicity – repeated exposure (GHS)	No data available
Aspiration hazard	No data available

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## 12. Ecological Information

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<b>Toxicity</b>			
Fish	LC50	> 100 mg/L	※ From US NLM / ECHA
Crustacean	EC50	> 100 mg/L	
Algae	EC50	> 100 mg/L	
<b>Persistence and degradability</b>		No data available	
<b>Bioaccumulative potential</b>		No data available	
<b>Mobility in soil</b>		No data available	
<b>Other adverse effects</b>		No data available	

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## 13. Disposal Considerations

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<b>Disposal consideration</b>	Observe all environmental regulations.
<b>Disposal precaution</b>	Keep in suitable, closed containers for disposal.

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## 14. Transport Information

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<b>UN TDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods
<b>IMDG</b>	Not dangerous goods
<b>Marine pollution</b>	Not applicable
<b>Special precaution</b>	
Fire EmS Guide	F-A (Recommendation)
Spillage EmS Guide	Not dangerous goods

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## 15. Regulatory Information

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<b>Korea Industrial Safety and Health Act</b>	
GHS	Not applicable
Material(s) applied by workplace exposure limits	Glycerin, Carbon black, Siliconized silica
<b>Korea Chemicals Control Act</b>	Not toxic chemical
<b>Korea Hazardous Materials Safety Control Act</b>	Not hazardous material
<b>Korea Persistent Organic Pollutants Control Act</b>	Not applicable
<b>US OSHA Hazards (GHS)</b>	Not applicable

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## 16. Other Information

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<b>Issued Date</b>	26 March 2019	
<b>Revision No.</b>	4	
<b>Revision Date</b>	-	
<b>References</b>		
- GHS Classification	European chemical agency,	<a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
- US NLM	U.S. National Library of Medicine,	<a href="http://chem.sis.nlm.nih.gov/chemidplus/">http://chem.sis.nlm.nih.gov/chemidplus/</a>

- HSDB	US Hazardous Substances Data Bank,	<a href="http://toxnet.nlm.nih.gov/">http://toxnet.nlm.nih.gov/</a>
- CCRIS	US Chemical Carcinogenesis Research Information System,	<a href="http://toxnet.nlm.nih.gov/">http://toxnet.nlm.nih.gov/</a>
- IARC	International Agency for Research on Cancer,	<a href="http://monographs.iarc.fr/">http://monographs.iarc.fr/</a>
- JP NITE	Japan National Institute of Technology and Evaluation,	<a href="http://www.safe.nite.go.jp/">http://www.safe.nite.go.jp/</a>

※ Hazards Testing and Classification

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Rep. of Korea



This SDS' composition/information on ingredient(s) and recommended use are provided by the mentioned Company in this SDS' section 1.

This SDS is composed in line with Korea Occupational Safety and Health Act (KOSHA) Article 41, to protect the health of the employees, and for documentation.

This SDS is composed with reference to criteria provided by KOSHA.