



TEST REPORT

BEIFA GROUP CO.,LTD

Technical Report: (3222)171-0019

Jun.28,2022

Date Received: Jun.20,2022

Page 1 of 19

YOOKY
BEIFA GROUP CO.,LTD
NO.68 WEILIU ROAD, XIAOGANG,BEILUN,NINGBO,CHINA

SAMPLE INFORMATION:

Sample Description:	HIGHLIGHTER INK	Sample Quantity:	N/A
Vendor:	N/A	Style No(s):	N/A
Manufacturer:	N/A	SKN/SKU No.:	N/A
Buyer:	N/A	PO No.:	N/A
Labeled Age Grade:	N/A	Ref #:	N/A
Appropriate Age Grade:	N/A	Country of Origin:	N/A
Client Specified Age Grade:	N/A	Assortment No.:	N/A
Tested Age Grade:	N/A	Country of Destination:	N/A
UPC Code:	N/A	Color :	N/A

EXECUTIVE SUMMARY:

TEST REQUESTED	CONCLUSION
The submitted sample was evaluated to MSDS(Material Safety Data Sheet) and the data provided is for information purpose only.	DATA

Note: With the client's prior consent, all tests were subcontracted test item.

BVCPS (ZHEJIANG) GENERAL CONTACT INFORMATION FOR THIS REPORT

TELEPHONE NO. : 86-574-87091207 / 87091330
E-MAIL : Kimi.a.Zhu@bureauveritas.com

Bureau Veritas Testing Technical Service (Zhejiang) Co., Ltd

Jane Ye
TECHNICAL MANAGER

Bureau Veritas Testing Technical Service (Zhejiang) Co., Ltd
1F west of east, 7F east, 8F, Building 5
No.66 Ganyu Road, Ningbo, Zhejiang, China
Tel:86-574-87091333, Fax:86-574-87971038
website:cps.bureauveritas.com



This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name:**

HIGHLIGHTER INK

· **Registration number:**

No available data.

· **UFI number:**

No available data.

· **Other means of identification:**

No available data.

· **1.2 Relevant identified uses of the substance or mixture and uses advised against on**

· **Application of the substance/ mixture:**

Consumer uses, writing.

· **Uses advised against:**

No available data.

· **Reason why uses advised against:**

No available data.

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Beifa Group Co.Ltd

No.68 weiliu road, Xiaogang, Beilun, Ningbo, China

Tel: +086 *****

Fax: +086 *****

Email: *****

National contact: Yooky

· **Only Representative/other EU contact point:**

No information available.

· **Further information obtainable from:**

Beifa Group Co.Ltd

· **1.4 Emergency telephone number**

Tel: +086 ***** (24 hours available)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **2.1.1 Classification according to regulation (EC) 1272/2008:**

The product is not classified according to CLP Regulation.

Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Not applicable	Not applicable

· **2.2 Label elements**

· **Labeling according to Regulation (EC) No 1272/2008:**

The product is not labelled according to CLP regulation.

· **Hazard pictograms:**

No applicable

· **Signal word:**

No applicable

· **Hazard-determining components of labelling:**

No applicable



· Hazard statements:

No applicable

· Precautionary statement:

No applicable

· Supplemental label elements:

Not applicable

· 2.3 Other hazards

None of the ingredients ($\geq 0.1\%$) meets the criteria for PBT/vPvB in accordance with Annex XIII.

None of the ingredients ($\geq 0.1\%$) is identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

SECTION 3: Composition/information on ingredients

· 3.1 Substance

Not applicable

· 3.2 Mixtures

· Description of the mixture:

HIGHLIGHTER INK.

Ingredients:

Substance	CAS No.	Index No.	EC No.	w/w, %	CLP Classification	SCL/M-factor/ATE
Water	7732-18-5	-	231-791-2	75.7	None	-
Glycerol	56-81-5	-	200-289-5	20	None	-
Solvent green 7	6358-69-6	-	228-783-6	2	None	-
Sodium carbonate	497-19-8	011-005-00-2	207-838-8	2	Eye Irrit. 2, H319	-
DMDM Hydantoin	6440-58-0	-	229-222-8	0.3	Acute Tox. 4, H302	ATE (oral)=2000 mg/kg

Additional information:

Full text of H-statements, see SECTION 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

General advice:

No special immediate medical required.

After inhalation:

Supply with fresh air.

Get medical attention if you feel unwell.

After skin contact:

No special measures required normally.

If there are signs of irritation or other symptoms seek medical attention.

After eye contact:

Rinse eyes with water.

If eye irritation occurs: Get medical advice/attention.

After swallowing:

Rinse mouth.

Call a POISON CENTER/doctor if you feel unwell.

· 4.2 Most important symptoms and effects, both acute and delayed:

No known symptoms or effects.



**BUREAU
VERITAS**

BEIFA GROUP CO.,LTD
Technical Report: **(3222)171-0019**
Jun.28,2022
Page 4 of 19

- **4.3 Indication of any immediate medical attention and special treatment needed:**
No special immediate medical attention or special treatment needed.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
 - **Suitable extinguishing agents:**
Use CO₂, chemical powder, water spray or alcohol resistant foam to extinguish.
 - **Unsuitable extinguishing media:**
No special unsuitable extinguishing media.
- **5.2 Special hazards arising from the substance or mixture:**
No hazardous arising from the mixture.
- **5.3 Advice for firefighters**
 - **Protective equipment:**
Wear self-contained breathing apparatus for firefighting.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
 - **6.1.1 For non-emergency personnel**
 - **Protective equipment:**
Eyes protection and dusk mask.
 - **Emergency procedures:**
Avoid breathing vapor /dust.
Avoid contact with eyes.
 - **6.1.2 For emergency responders**
 - **Personal protective equipment:**
Use suitable protective equipment for personal protection.
- **6.2 Environmental precautions:**
Prevent further leakage or spillage if safe to do so.
Prevent spillage from entering drains, sewer, basement or confined areas.
If the spillage contaminates rivers, lakes or drains inform respective authorities.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
- **6.4 Reference to other sections:**
See section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See section 13 for disposal in formation.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling:**
Avoid contact with eyes.

• **Information about fire and explosion protection:**

Normal measures for preventive fire protection.

• **7.2 Conditions for safe storage, including any non-compatibility**

• **Requirements to be met by storerooms and receptacles:**

Store in a cool and well-ventilated place.

• **Information about storage in one common storage facility:**

No further requirements.

• **Further information about storage conditions:**

No further requirements.

• **Storage class:**

12.

• **7.3 Specific end use(s):**

See section 1.2.

SECTION 8: Exposure controls/personal protection

• **8.1 Control parameters**

• **Ingredients with limit values that require monitoring at the workplace:**

Country	Limit value - Eight hours	Limit value - Short term
56-81-5 Glycerol		
Belgium	10 mg/m ³	-
Finland	20 mg/m ³	-
France	10 mg/m ³	-
Germany (AGS)	200 mg/m ³ Inhalable fraction	400 mg/m ³ Inhalable fraction; 15 minutes average value
Germany (DFG)	200 mg/m ³ Inhalable fraction	400 mg/m ³ Inhalable fraction; 15 minutes average value
Ireland	10 mg/m ³	-
Poland	10 mg/m ³	-
Spain	10 mg/m ³	-
United Kingdom	10 mg/m ³	-

• **DNELs:**

DNEL type		DNEL worker value	DNEL consumer value
56-81-5 Glycerol			
Local effects	Long-term, inhalation exposure	56 mg/m ³	33 mg/m ³
Systemic effects	Long-term, oral exposure	-	229 mg/kg bw/day
6440-58-0 DMDM Hydantoin			
Systemic effects	Long-term, inhalation exposure	70.6 mg/m ³	17.4 mg/m ³
	Long-term, dermal exposure	20 mg/kg bw/day	10 mg/kg bw/day
	Long-term, oral exposure	-	10 mg/kg bw/day

• **PNECs:**



PNEC type	Value
56-81-5 Glycerol	
Freshwater	885 µg/L
Intermittent releases (freshwater)	8.85 mg/L
Marine water	88.5 µg/L
Sewage treatment plant (STP)	1 g/L
Sediment (freshwater)	3.3 mg/kg sediment dw
Sediment (marine water)	330 µg/kg sediment dw
6440-58-0 DMDM Hydantoin	
Freshwater	510 µg/L
Intermittent releases (freshwater)	110 µg/L
Marine water	51 µg/L
Sewage treatment plant (STP)	10 mg/L

• Additional information:

The lists valid during the marking were used as basis.

• 8.2 Exposure controls

Based on the composition shown in section 3, the following measures are suggested for occupational safety measure.

• Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice.

Wash hands and face before breaks and at the end of work.

See section 7 for information about design of technical facilities.

• Personal protective equipment

• Eye and face protection:

No special eye and face protection required.

• Skin protection

• Hand protection:

No special protection of hands required.

• Other skin protection:

No special protection required.

• Respiration protection:

Dust mask is recommended.

• Thermal hazards:

No special requirement.

• Environmental exposure controls:

Control measures must be made in accordance with Community environmental protection legislation.

SECTION 9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties

• Physical state	Liquid
• Color	Yellow
• Odor & Odor threshold	Odorless
• Melting point/freezing point (or softening point/range)	Not determined
• Boiling point or initial boiling point and boiling range	100°C (water)
• Flammability	Not flammable liquid
• Lower and upper explosion limit	Not determined
• Flash point	191°C (Glycerol)
• Auto-ignition temperature	400°C (Glycerol)
• Decomposition temperature	>290°C (Glycerol)



**BUREAU
VERITAS**

BEIFA GROUP CO.,LTD

Technical Report: **(3222)171-0019**

Jun.28,2022

Page 7 of 19

· <i>pH</i>	4-8 (20°C, 100g/L)
· <i>Kinematic viscosity (mm²/s)</i>	Not determined
· <i>Solubility</i>	Soluble in water
· <i>Partition coefficient n-octanol/water (log value)</i>	Not determined
· <i>Vapor pressure</i>	Not determined
· <i>Density and/or relative density</i>	Not determined
· <i>Relative vapor density</i>	Not applicable
· <i>Particle characteristics</i>	Not applicable
· 9.2 Other information	
· 9.2.1 Information with regard to physical hazard classes:	
· <i>Explosives</i>	Not applicable
· <i>Flammable gases</i>	Not applicable
· <i>Aerosols</i>	Not applicable
· <i>Oxidising gases</i>	Not applicable
· <i>Gases under pressure</i>	Not applicable
· <i>Flammable liquids</i>	Not applicable
· <i>Flammable solids</i>	Not applicable
· <i>Self-reactive substances and mixtures</i>	Not applicable
· <i>Pyrophoric liquids</i>	Not applicable
· <i>Pyrophoric solids</i>	Not applicable
· <i>Self-heating substances and mixtures</i>	Not applicable
· <i>Substances and mixtures, which emit flammable gases in contact with water</i>	Not applicable
· <i>Oxidizing liquids</i>	Not applicable
· <i>Oxidizing solids</i>	Not applicable
· <i>Organic peroxides</i>	Not applicable
· <i>Corrosive to metals</i>	Not applicable
· <i>Desensitised explosives</i>	Not applicable
· 9.2.2 Other safety characteristics	
· <i>Mechanical sensitivity</i>	Not applicable
· <i>Self-accelerating polymerisation temperature</i>	Not applicable
· <i>Formation of explosible dust/air mixtures</i>	Not applicable
· <i>Acid/alkaline reserve</i>	Not applicable
· <i>Evaporation rate</i>	Not applicable
· <i>Miscibility</i>	Not determined
· <i>Conductivity</i>	Not applicable
· <i>Corrosiveness</i>	Not applicable
· <i>Gas group</i>	Not applicable
· <i>Redox potential</i>	Not applicable
· <i>Radical formation potential</i>	Not applicable
· <i>Photocatalytic properties</i>	Not applicable
· <i>Other physical and chemical parameters</i>	Not determined

SECTION 10: Stability and reactivity

· **10.1 Reactivity:**

The product is no-reactive under normal conditions of use, storage and transport.

· **10.2 Chemical stability:**

Under storage at normal ambient temperatures, the product is stable.

· **10.3 Possibility of hazardous reactions:**

No known hazardous reaction.

· **10.4 Conditions to avoid:**

High temperature.

· **10.5 Incompatible materials:**

Acids, strong oxidizing agents.

· **10.6 Hazardous decomposition products:**

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity:**

Based on available data, the classification criteria are not met.

LD50/LC50 values relevant for classification:

56-81-5 Glycerol

Guinea pig	LD50-oral	7750mg/kg
Rat	LD50-oral	12600mg/kg
	LC50-inhalation	> 570mg/m ³ /1H
Mouse	LD50-oral	4090mg/kg
Rabbit	LD50-oral	27000mg/kg
	LD50-skin	>10000mg/kg

6440-58-0 DMDM Hydantoin

Rat	LD50-oral	2000mg/kg
-----	-----------	-----------

Remark: All the above data are from literature.

· **Skin corrosion/irritation:**

Based on available data, the classification criteria are not met.

· **Serious eyes damage/ irritation:**

Based on available data, the classification criteria are not met.

· **Respiratory or skin sensitization:**

Based on available data, the classification criteria are not met.

· **Germ cell mutagenicity:**

Based on available data, the classification criteria are not met.

· **Carcinogenicity:**

Based on available data, the classification criteria are not met.

· **Reproductive toxicity:**

Based on available data, the classification criteria are not met.

· **STOT-single exposure:**

Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:**

Based on available data, the classification criteria are not met.

· **Aspiration hazard:**

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties:

None of the ingredients ($\geq 0.1\%$) is considered to have endocrine-disrupting properties with respect to humans, as none of them meet the criteria set out in section A of Regulation (EU) No 2017/2100.

11.2.2 Other information:

No known other relevant information on adverse health effects.

SECTION 12: Ecological information

12.1 Toxicity:

LC50/EC50/NOEC values relevant for classification:

56-81-5 Glycerol		
Short-term toxicity to fish		LC50 (4 days) 54 g/L
Short-term toxicity to aquatic invertebrates		EC50 (24 h) 10 g/L
6440-58-0 DMDM Hydantoin		
Short-term toxicity to fish		EC50 (4 days) 82.3 mg/L NOEC (4 days) 82.3 mg/L
Long-term toxicity to fish		NOEC (28 days) 14 mg/L
Short-term toxicity to aquatic invertebrates		EC50 (48 h) 29.1 mg/L NOEC (48 h) 12.7 mg/L
Long-term toxicity to aquatic invertebrates		NOEC (21 days) 70.9 mg/L
Toxicity to aquatic algae and cyanobacteria		EC50 (4 days) 1 g/L NOEC (72 h) 5.1 mg/L

12.2 Persistence and degradability:

56-81-5	Glycerol	Readily biodegradable in water
6440-58-0	DMDM Hydantoin	Readily biodegradable in water

12.3 Bio-accumulative potential:

56-81-5	Glycerol	Log Pow = -1.75
6440-58-0	DMDM Hydantoin	Log Pow = -2.9

12.4 Mobility in soil:

56-81-5	Glycerol	Henry's law constant = 0.001 Pa m ³ /mol at 25 °C and 101.325 kPa
6440-58-0	DMDM Hydantoin	Log K _{oc} = 1.25

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances ($\geq 0.1\%$) that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties:

None of the ingredients ($\geq 0.1\%$) is considered to have endocrine-disrupting properties with respect to non-target organisms, as none of them meet the criteria set out in section B of Regulation (EU) No 2017/2100.

12.7 Other adverse effects:

No known other adverse effects.

12.8 Additional ecological information

General notes:

WGK1 (German Regulation) (self-assessment): Low hazard to waters.

Do not allow large quantities of the product to reach ground water, water course or sewage system.

SECTION 13: Disposal consideration

13.1 Waste treatment methods

Recommendation:

Small quantities can be disposed together with household garbage.



Large quantities disposed must be in according to the local/regional/national/ international regulation.

• **13.2 Un-cleaned packaging**

• **Recommendation:**

Dispose of contents/container in according to the local/regional/national/ international regulation.

SECTION 14: Transport information

• 14.1 UN-Number <i>ADR/RID/ADN, IMO/IMDG, IATA-DGR</i>	<i>Not regulated</i>
• 14.2 UN proper shipping name <i>ADR/RID/ADN, IMO/IMDG, IATA-DGR</i>	<i>Void</i>
• 14.3 Transport hazard class (es) <i>ADR/RID/ADN, IMO/IMDG, IATA-DGR</i> Class Label	<i>Void</i> <i>Void</i>
• 14.4 Packing group <i>ADR/RID/ADN, IMO/IMDG, IATA-DGR</i>	<i>Void</i>
• 14.5 Marine pollution	<i>No</i>
• 14.6 Special precautions for user • <i>Danger code (Kemler)</i> • <i>EMS number</i>	<i>Void</i> <i>Void</i> <i>Void</i>
• 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	<i>Void</i>

SECTION 15: Regulatory information

• **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

• **MAK (German Maximum Workplace Concentration):**

None of the ingredients is listed.

• **Directive 2012/18/EU**

• **Named dangerous substances-ANNEX I:**

None of the ingredients is listed.

• **Seveso category:**

Not applicable

• **Qualifying quantity (tonnes) for the application of lower-tier requirements:**

Not applicable

• **Qualifying quantity (tonnes) for the application of upper-tier requirements:**

Not applicable

• **National regulations.**

• **Water hazard class:**

WGK1 (German Regulation) (self-assessment): Low hazard to waters.

• **Other regulations, limitations and prohibitive regulations**

• **SVHC Candidate list of REACH Regulation Annex XIV Authorization:**

None of the ingredients is listed.

• **REACH Regulation Annex XVII Restriction:**

None of the ingredients is listed.

• **REACH Regulation Annex XIV Authorization List:**

None of the ingredients is listed.

• **15.2 Chemical safety assessment:**

A Chemical Safe Assessment has not been carried out.

SECTION 16: Other information

• 16.1 Indication of changes:

None.

16.2 Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bio accumulative and Toxic

vPvB: very persistent and very bio accumulative

SVHC: Substance of Very High Concern

LD50: Lethal dose, 50 percent

LC50: Lethal concentration, 50 percent

EC50: Concentration of maximal effect, 50 percent

NOEC: No observed effect concentration

Acute Tox. 4: Acute toxicity-oral, hazard category 4

Eye Irrit. 2: Eye damage/irritation, hazard category 2

• 16.3 Key literature references and sources for data:

<https://echa.europa.eu/>

<https://chem.nlm.nih.gov/>

<https://www.osha.gov/>

<http://www.unece.org/>

<http://www.imo.org/>

<https://www.dguv.de/>

<https://epa.govt.nz/>

<http://www.ilo.org/>

<https://www.phmsa.dot.gov/>

• 16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:

See section 2.1 (classification).

• 16.5 Relevant H- and EUH-phrases (number and full text):

H302 Harmful if swallowed

H319 Causes serious eye irritation

• 16.6 Training advice:

Workers must be trained in general and specific aspects of safe work procedures for this chemical. Workers need easy to understand guidelines and instructions for safe working with this chemical. Instructions, guidelines and legally required documents need to be available for workers in easy to understand language.

• 16.7 Further information:

The contents and format of this SDS are in accordance with Regulation (EC) No 1907/2006, its amendment Regulation (EU) No 2020/878 and (EC) No 1272/2008.

DISCLAIMER OF LIABILITY:

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in



another product, this SDS information may not be applicable.

End of safety data sheet

1 Identification

· **Product identifier**

· **Trade name:**

HIGHLIGHTER INK

· **Other means of identification:**

No available data.

· **Recommended use of the chemical and restrictions on use**

· **Application of the substance/ mixture:**

Consumer uses, writing.

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Beifa Group Co.Ltd

No.68 weiliu road, Xiaogang, Beilun, Ningbo, China

Tel: +086 *****

Fax: +086 *****

Email: *****

National contact: Yooky

· **Other US contact point:**

No information available.

· **Further information obtainable from:**

Beifa Group Co.Ltd

· **Emergency telephone number**

US Poison Center

Tel: + 1 800 222 1222 (24hours available)

2 Hazard(s) identification

· **Classification of the substance or mixture:**

This product is not classified according to OSHA 2012 Hazard Communication Standard (29 CFR 1910.1200).

Hazard class	Hazard category
Not applicable	Not applicable

· **Classification system:**

The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200) and extended by company and literature data.

· **Label elements**

· **Labeling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)**

· **Hazard pictograms:**

Not applicable

· **Signal word:**

Not applicable

· **Hazard-determining components of labelling:**

Not applicable

· **Hazard statements:**

Not applicable

· **Precautionary statement:**



Not applicable

· **Hazards not otherwise classified (HNOC):**
No known otherwise classified hazards.

3 Composition/information on ingredients

· **Chemical characterization:**

Mixture

· **Description:**

HIGHLIGHTER INK.

· **Components:**

CAS No.	Composition Name	w/w, %
7732-18-5	Water	75.7
56-81-5	Glycerol	20
6358-69-6	Solvent green 7	2
497-19-8	Sodium carbonate	2
6440-58-0	DMDM Hydantoin	0.3

4 First aid measures

· **Description of first aid measures**

After inhalation:

Supply with fresh air.

Call for doctor/physician if you feel unwell.

After skin contact:

Wash with water.

If there are signs of irritation or other symptoms seek medical attention.

After eye contact:

Rinse cautiously with water.

If eye irritation occurs: Get medical advice/attention.

After swallowing:

Rinse mouth.

Call a POISON CENTER/doctor if you feel unwell.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed:**

No known symptoms or effects.

· **Indication of any immediate medical attention and special treatment needed:**

No special immediate medical attention or special treatment needed.

5 Fire-fighting measures

· **Suitable extinguishing agents:**

Use CO₂, powder, water spray or alcohol resistant foam to extinguish.

· **Special hazards arising from the substance or mixture:**

May form corrosive dust/ vapor in air under fire.

· **Special protective equipment and precaution for firefighters**

Protective equipment:

Wear self-contained breathing apparatus for firefighting.

6 Accidental release measures



· Personal precautions, protective equipment and emergency procedures:

Collect the leakage timely.
Ensure adequate ventilation.
Prevent to contact with eyes.

· Environmental precautions:

Do not allow the product to enter sewers/surface or ground water.
Inform respective authorities in case of seepage into water course or sewages system.

· Methods and material for containment and cleaning up:

Pick up mechanically.
Ensure well ventilation.
Dispose contaminated material as waster according to item 13.

7 Handling and storage

· Handling

· Precautions for safe handling:

Avoid contact with eyes.

· Information about fire and explosion protection:

Normal measures for preventive fire protection.

· Conditions for safe storage, including any incompatibilities

· Requirements to be met by storerooms and receptacles:

Store in a cool and well-ventilated place.

· Information about storage in one common storage facility:

No further requirements.

· Further information about storage conditions:

No further requirements.

8 Exposure controls/personal protection

· Components with limit values that require monitoring at the workplace:

CAS No.	Composition	OSHA PEL	NIOSH REL	Cal/OSHA PEL	Cal/OSHA PEL
56-81-5	Glycerin	15 mg/m ³ (total dust), 5 mg/m ³ (respirable)	-	10 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction)	-

· Additional information:

The lists that were valid during the creation were used as basis.

· Based on the composition shown in section 3, the following measures are suggested for occupational safety measure:

· Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice.
See section 7 for information about design of technical facilities.

· Personal protective equipment:

· Breathing equipment:

Suitable respiratory protective device recommended.

· Protection of hands:

No special protection of hands required.

· Eye protection:

No special eye protection required.

· Body Protection:

No special body protection required.



9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form	Liquid
Color	Yellow
Odor	Odorless
Odor threshold	Not determined
· pH-value	4-8 (20°C, 100g/L)
· Change in condition	
Melting point/melting range	Not determined.
Boiling point and boiling range	100°C (Water)
· Freezing point	Not determined.
· Flash point	191°C (Glycerin)
· Flammability	Not flammable liquid
· Decomposition temperature	>290°C (Glycerol)
· Self-ignition	400°C (Glycerin)
· Danger of explosion	Product dose not present explosive hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties	Not oxidizing agent
· Vapor pressure	Not determined.
· Density	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in/Miscibility with	
Water	Soluble in water
· Partition coefficient (n-octanol/water)	Not determined.
· Viscosity	
Dynamic	Not determined.
Kinematic	Not determined.
· Other information	Not determined.

10 Stability and reactivity

· Reactivity:

No decomposition if used according to specification.

· Chemical stability:

Stable under recommended storage conditions.

· Possibility of hazardous reactions:

No known hazardous reaction.

· Conditions to avoid:

High temperature.

· Incompatible materials:

Strong acids, strong oxidizing agents.



· **Hazardous decomposition products:**
No known hazardous decomposition products.

11 Toxicological information

· **Acute toxicity:**
Not acute toxicity mixture.

LD50/LC50 values relevant for classification:

56-81-5 Glycerin

Guinea pig	LD50-oral	7750mg/kg
Rat	LD50-oral	12600mg/kg
	LC50- inhalation	> 570mg/m ³ /1H
Mouse	LD50-oral	4090mg/kg
Rabbit	LD50-oral	27000mg/kg
	LD50-skin	>10000mg/kg

6440-58-0 DMDM Hydantoin

Rat	LD50-oral	2000mg/kg
-----	-----------	-----------

Remark: All the above data are from literature.

· **Primary irritant effect**
· **Skin corrosion/irritation:**

Not irritant to skin.

· **Serious eyes damage/ irritation:**

Not irritant to eyes.

· **Sensitization:**

Not sensitive to skin or respiratory.

· **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer):**

None of the ingredients is listed.

· **NTP (National Toxicology Program):**

None of the ingredients is listed.

12 Ecological information

· **Toxicity:**

LC50/EC50/NOEC values relevant for classification:

56-81-5 Glycerol

Short-term toxicity to fish	LC50 (4 days) 54 g/L
Short-term toxicity to aquatic invertebrates	EC50 (24 h) 10 g/L

6440-58-0 DMDM Hydantoin

Short-term toxicity to fish	EC50 (4 days) 82.3 mg/L NOEC (4 days) 82.3 mg/L
Long-term toxicity to fish	NOEC (28 days) 14 mg/L
Short-term toxicity to aquatic invertebrates	EC50 (48 h) 29.1 mg/L NOEC (48 h) 12.7 mg/L
Long-term toxicity to aquatic invertebrates	NOEC (21 days) 70.9 mg/L
Toxicity to aquatic algae and cyanobacteria	EC50 (4 days) 1 g/L NOEC (72 h) 5.1 mg/L



· **Persistence and degradability:**

56-81-5	Glycerol	Readily biodegradable in water
6440-58-0	DMDM Hydantoin	Readily biodegradable in water

· **Bio-accumulative potential:**

56-81-5	Glycerol	Log Pow= -1.75
6440-58-0	DMDM Hydantoin	Log Pow =-2.9

· **Mobility in soil:**

56-81-5	Glycerol	Henrys law constant= 0.001 Pa m ³ /mol at 25 °C and 101.325 kPa
6440-58-0	DMDM Hydantoin	Log Koc=1.25

· **Additional ecological information**

· **Other adverse effects:**

No known other adverse effects.

13 Disposal consideration

· **Waste treatment methods**

· **Recommendation:**

Small quantities can be disposed together with household garbage.
Large quantities disposed must be in according to the local regulation.

· **Un-cleaned packaging**

· **Recommendation:**

Dispose of contents/container in according to the local regulation.

14 Transport information

· UN-Number DOT, IMO/IMDG, IATA-DGR	Not regulated
· UN proper shipping name DOT, IMO/IMDG, IATA-DGR	Void
· Transport hazard class (es) DOT, IMO/IMDG, IATA-DGR Class Label	Void Void
· Packing group DOT, IMO/IMDG, IATA-DGR	Void
· Environmental hazardous Marine pollution	No
· Special precautions for user	Void
· Danger code (Kemler)	Void
· EMS number	Void
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Void
· UN "Model Regulation"	Void

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**



**BUREAU
VERITAS**

BEIFA GROUP CO.,LTD

Technical Report: **(3222)171-0019**

Jun.28,2022

Page 18 of 19

- **Sara**
- **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):**

7732-18-5	Water	Listed
56-81-5	Glycerol	Listed
6358-69-6	Solvent green 7	Listed
497-19-8	Sodium carbonate	Listed
6440-58-0	DMDM Hydantoin	Listed

· **Proposition 65**

- **Chemicals known to cause cancer:**
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.
- **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.
- **Washington, WAC 173-334-130 (CHCC):**
None of the ingredients is listed.
- **Chemicals of Concern, published by Maine DEP on July, 2015:**
None of the ingredients is listed.
- **Chemicals of High Concern to Children, published by Department of Health, Vermont, Rev Date Nov 24, 2014:**
None of the ingredients is listed.
- **High Priority Chemicals of Concern for children's Health, Oregon, update on May 18, 2016:**
None of the ingredients is listed.
- **Carcinogenicity categories**
- **EPA (Environmental Protection Agency):**
None of the ingredients is listed.
- **TLV (Threshold Limit Value established by ACGIH):**
None of the ingredients is listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health):**
None of the ingredients is listed.
- **OSHA-Ca (Occupational Safety & Health Administration):**
None of the ingredients is listed.

16 Other information

The contents and format of this SDS are in accordance with 29 CFR 1910.1200(g).

DISCLAIMER OF LIABILITY:

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

· **Abbreviations and acronyms:**

DOT: Department of Transportation



**BUREAU
VERITAS**

BEIFA GROUP CO.,LTD

Technical Report: **(3222)171-0019**

Jun.28,2022

Page 19 of 19

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association

LD50: Lethal dose, 50 percent

LC50: Lethal concentration, 50 percent

EC50: Concentration of maximal effect, 50 percent

NOEC: No observed effect concentration

PEL: Permissible Exposure Limit

TLV: Threshold limit value

REL: Recommended Exposure Limit

End of safety data sheet

-- END OF REPORT --