

Safety Data Sheet

Highlighter 50 Blue

Version: V1.0.0.1

Creation Date: 2020/03/24

Revision Date: 2020/03/24

*Prepared according to EU regulation No. 2015/830

1 Identification of the substance/mixture and of the company/undertaking**Product identifier**

Product Name	Highlighter 50 Blue
Cat No.	
CAS NO.	-
EC NO.	-
Molecular Formula	-

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Name of the company	Shanghai NNW New Materials Technology Co., Ltd.
Address of the company	ROOM 402, Building 17, Lane 268, Lingxin Road, Changning District Shanghai 200335, CHINA
Post code	200335
Telephone number	021-64476059
Fax number	021-64476096
E-mail address	tech@nnwchina.com

Emergency phone number

Emergency phone number	13311812200
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2 Hazards identification**CLP classification according to Regulation (EC) No. 1272/2008**

According to Regulation (EC) No 1272/2008 and its amendments. Not classified as a dangerous substance.

Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable
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Precautionary statements

◆ Prevention

Prevention	Not applicable
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◆ Response

Response	Not applicable
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◆ Storage

Storage	Not applicable
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◆ Disposal

Disposal	Not applicable
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Other hazards

	Not applicable
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3 Composition/information on ingredients

Component	Cas No.	EC No.	Index No.	Hazard classification according to CLP	Concentration (weight percent, %)
Glycerol	56-81-5	200-289-5	-	Not Classified	15
Water	7732-18-5	231-791-2	-	Not Classified	82~84
Diammonio(ethyl)[4-[[4-[ethyl(3-sulphonatobenzyl)amino]phenyl](2-sulphonatophenyl)methylene]cyclohexa-2,5-dien-1-ylidene](3-sulphonatobenzyl)ammonium	2650-18-2	220-168-0	-	Not Classified	1~3

4 First aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
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Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Firefighting measures

Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.

Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
2	May expansion or decompose explosively when heated or involved in fire.

Advice for firefighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

1	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
2	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3	Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

1	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
2	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
3	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7 Handling and storage

Precautions for handling

◆ Protective measures

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.

◆ Measures to prevent fire

1	Keep away from heat/sparks/open flames/ hot surfaces.
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◆ Measures to prevent aerosol and dust generation

1	Not applicable.
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◆ Advice on general occupational hygiene

1	Wash hands and face after using of the substances.
2	Replace the contaminated clothing immediately.

Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed .
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

Specific end uses

1	In addition to use mentioned in the first parts, unforeseen other specific end uses.
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8 Exposure controls/personal protection

Control parameters

◆ Occupational Exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
	USA - OSHA	-	15	-	-
	South Korea	-	10	-	-

Glycerol mist 56-81-5	Ireland	-	10	-	-
	Germany (DFG)	-	50	-	100
	Belgium	-	10	-	-
	Australia	-	10	-	-

◆ Biological limit values

Biological limit values	No information available
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◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 160.1~GBZ/T 160.81-2004 Determination of toxic substances in workplace air (Series standard) .

◆ Derived No effect level(DNEL)

Component	Route of exposure	DNEL for Workers			
		Acute effects(local)	Acute effects(systemic)	Chronic effects(local)	Chronic effects(systemic)
Glycerol 56-81-5	Inhalation	No data available	No data available	56 mg/m ³	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Water 7732-18-5	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Diammonio(ethyl)[4-[[4-[ethyl(3-sulphonatobenzyl)amino]phenyl](2-sulphonatophenyl)methylene]cyclohexa-2,5-dien-1-ylidene)](3-sulphonatobenzyl)ammonium 2650-18-2	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

◆ Predicted No Effect Concentration (PNEC)

Predicted No Effect Concentration (PNEC)	No information available
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Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

Personal protection equipment

General requirement	
Eye protection	Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US)).
Hand protection	Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.
Respiratory protection	If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Skin and body protection	Wear fire/flame resistant/retardant clothing and antistatic boots.

9 Physical and chemical properties

Appearance	Blue
Odor	No information available
Odor threshold	No information available
pH	7.00 (20°C,Water)

Melting point/freezing point(°C)	0 (Water)
Initial boiling point and boiling range(°C)	100 (Water)
Flash point(Closed cup,°C)	No information available
Evaporation rate	No information available
Flammability	No information available
Upper/lower explosive limits[% (v/v)]	Upper limit: No information available; Lower limit: No information available
Vapor pressure	2.33kPa (Water)
Vapor density(Air= 1)	>1 (Water)
Relative density(Water=1)	1 (Water)
Solubility(mg/L)	No information available
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Viscosity (mm ² /s)	No information available
Explosive properties	No information available
Oxidizing properties	No information available

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	In contact with oxidants causes severe reactions, and may cause a fire or explosion. In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Oxidants, alkali metals, alkaline earth metals and aluminum. Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Acute toxicity

Component	Cas No.	LD ₅₀ (oral)	LD ₅₀ (dermal)	LC ₅₀ (inhalation, 4h)
Glycerol	56-81-5	12600mg/kg(Rat)	> 10000mg/kg(Rabbit)	No information available

Carcinogenicity

ID	CAS No.	Component	IARC	NTP
1	56-81-5	Glycerol	Not Listed	Not Listed
2	7732-18-5	Water	Not Listed	Not Listed
3	2650-18-2	Diammonio(ethyl)[4-[[4-[ethyl(3-sulphonatobenzyl)amino]phenyl](2-sulphonatophenyl)methylene]cyclohexa-2,5-dien-1-ylidene](3-sulphonatobenzyl)ammonium	Not Listed	Not Listed

Others

Highlighter ink-dye (Blue)	
Skin corrosion/irritation	No information available
Serious eye damage/irritation	No information available
Skin sensitization	No information available
Respiratory sensitization	No information available
Reproductive toxicity	No information available

STOT-single exposure	No information available
STOT-repeated exposure	No information available
Aspiration hazard	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity(additional)	No information available

12 Ecological information

Acute aquatic toxicity

Component	Cas No.	Fish	Crustaceans	Algae
Glycerol	56-81-5	LC 50: 68100mg/L (96h)(Fish)	No information available	No information available

Chronic aquatic toxicity

Component	Cas No.	Fish	Crustaceans	Algae
Glycerol	56-81-5	No information available	No information available	No information available

Persistence and degradability

Component	Cas No.	Persistence (water/soil)	Persistence (air)
酸性兰 9	2650-18-2	High	High
水	7732-18-5	Low	Low

Bioaccumulative potential

Component	Cas No.	Bioaccumulative potential	Remarks
酸性兰 9	2650-18-2	Low	Log Kow=2.0459
水	7732-18-5	Low	Log Kow=-1.38

Mobility in soil

Component	Cas No.	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
酸性兰 9	2650-18-2	Low	10000000000
水	7732-18-5	Low	14.3

Results of PBT and vPvB assessment

Component	Cas No.	Results of PBT and vPvB assessment (according to (EC) No 2015/830)
甘油	56-81-5	not PBT/vPvB
水	7732-18-5	not PBT/vPvB
酸性兰 9	2650-18-2	not PBT/vPvB

13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label and Mark

Transporting Label	Not applicable
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IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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ICAO/IATA-DG

ICAO/IATA-DG	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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15 Regulatory information**International chemical inventory**

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS
Glycerol	√	√	√	√	√	√	√	√
Water	√	√	√	√	√	√	√	√
Diammonio(ethyl)[4-[[4-[ethyl(3-sulphonatobenzyl)amino]phenyl](2-sulphonatophenyl)methylene]cyclohexa-2,5-dien-1-ylidene](3-sulphonatobenzyl)ammonium	√	√	√	√	√	√	√	√

- 【EINECS】** European Inventory of Existing Commercial Chemical Substances
【TSCA】 United States Toxic Substances Control Act Inventory
【DSL】 Canadian Domestic Substances List
【IECSC】 China Inventory of Existing Chemical Substances
【NZIoC】 New Zealand Inventory of Chemicals
【PICCS】 Philippines Inventory of Chemicals and Chemical Substances
【KECI】 Existing and Evaluated Chemical Substances
【AICS】 Australia Inventory of Chemical Substances

European chemical inventory

Component	A	B	C	D	E	F	G
Glycerol	×	×	×	√	√	×	×
Water	×	×	×	√	×	×	×
Diammonio(ethyl)[4-[[4-[ethyl(3-sulphonatobenzyl)amino]phenyl](2-sulphonatophenyl)methylene]cyclohexa-2,5-dien-1-ylidene](3-sulphonatobenzyl)ammonium	×	×	×	√	×	×	×

- 【A】** Candidate list of Substances of Very High Concern for authorization under EU REACH regulation
【B】 Substances requiring authorisation under EU REACH regulation
【C】 Substances restricted under EU REACH
【D】 Pre-registered substances under EU REACH
【E】 Registered substances under EU REACH
【F】 Substance Evaluation – CoRAP under EU REACH
【G】 List of priority substances under EU water policy (Directive 2455/2001/EC)

16 Others**Information on revision**

Creation Date	2020/03/24
Revision Date	2020/03/24
Reason for revision	-

Reference

- 【1】** IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
【2】 IARC, website: <http://www.iarc.fr/>
【3】 OECD: The Global Portal to Information on Chemical Substances, website: http://www.echemportal.org/echemportal/index?pageID=0 & request_locale=en.

- 【4】 CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- 【5】 NLM:ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- 【6】 EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- 【7】 U.S. Department of Transportation:ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- 【8】 Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS-Chemical Abstracts Service	CMR-Carcinogens, mutagens or substances toxic to reproduction
PC-STEL-Short term exposure limit	PC-TWA-Time Weighted Average
DNEL-Derived No Effect Level	IARC-International Agency for Research on Cancer
RPE-Respiratory Protective Equipment	PNEC-Predicted No Effect Concentration
LC50-Lethal Concentration 50%	LD50-Lethal Dose 50%
NOEC-No Observed Effect Concentration	EC50-Effective Concentration 50%
PBT-Persistent, Bioaccumulative, Toxic	POW-Partition coefficient Octanol:Water
BCF-Bioconcentration factor (BCF)	vPvB-very Persistent, very Bioaccumulative
IMDG-International Maritime Dangerous Goods	ICAO/IATA-International Civil Aviation Organization/International Air Transportation Association
UN-The United Nations	ACGIH-American Conference of Governmental Industrial Hygienists
NFPA-National Fire Protection Association	OECD-Organization for Economic Co-operation and Development

Disclaimer

This Safety Data Sheet (SDS) was prepared according to REACH Regulation. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.