

1148542 Lyreco Highlighter Ink/ ORANGE

Lyreco

Chemwatch: 70-5959 Version No: 2.1.1.1

Safety Data Sheet (Conforms to Regulation (EU) No 2015/830)

Chemwatch Hazard Alert Code: 2

Issue Date: 11/09/2016 Print Date: 02/15/2017 S.REACH.GBR.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product Identifier

Product name	1148542 Lyreco Highlighter Ink/ ORANGE	
Synonyms	Not Available	
Other means of identification	Not Available	

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

Relevant identified uses	Highlighter ink.
Uses advised against	Not Applicable

1.3. Details of the supplier of the safety data sheet

Registered company name	Lугесо	
Address	eer Park Court, Donnington Wood Telford, TF2 7NB United Kingdom	
Telephone	52 286130	
Fax	lot Available	
Website	www.lyreco.co.uk	
Email	steve.weston@lyreco.com	

1.4. Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Considered a hazardous mixture according to Reg. (EC) No 1272/2008 and their amendments. Not classified as Dangerous Goods for transport purposes.

CHEMWATCH HAZARD RATINGS

	Min	Max	
Flammability	0		
Toxicity	2		0 = Minimum
Body Contact	2		1 = Low 2 = Moderate
Reactivity	0		3 = High
Chronic	2		4 = Extreme

Classification according to regulation (EC) No 1272/2008 [CLP] [1]

Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Germ cell mutagenicity Category 2, Carcinogenicity Category 2, Reproductive Toxicity Category 2, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Chronic Aquatic Hazard Category 3

Legend:

1. Classified by Chemwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I; 3. Classification drawn from EC Directive 1272/2008 - Annex

2.2. Label elements

CLP label elements





SIGNAL WORD

WARNING

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H332	Harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P101 If medical advice is needed, have product container or label at hand.

Precautionary statement(s) Response

P308+P313 IF exposed or concerned: Get medical advice/ attention.

Precautionary statement(s) Storage

P405 Store locked up.

Precautionary statement(s) Disposal

P501 Dispose of contents/container in accordance with local regulations.

2.3. Other hazards

Cumulative effects may result following exposure*.

REACh - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP]
1.56-81-5 2.200-289-5 3.Not Available 4.01-2119471987-18-XXXX	10-20	glycerol	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation); H315, H319, H335 ^[1]
1.73398-89-7 2.277-459-0 3.Not Available 4.Not Available	5-10	C.I. Basic Violet 11:1 tetrachlorozincate(1-)	Acute Toxicity (Oral) Category 4, Acute Toxicity (Inhalation) Category 3, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Germ cell mutagenicity Category 2, Reproductive Toxicity Category 2, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation); H302, H331, H315, H319, H341, H361, H335 [1]
1.989-38-8 2.213-584-9 3.Not Available 4.Not Available	5-10 C.I. Basic Red 1 Acute Toxicity (Oral) Category 4, Eye Irritation Category 2, Carcinogenicity Category 2, CHazard Category 2; H302, H319, H351, H411 [1]		Acute Toxicity (Oral) Category 4, Eye Irritation Category 2, Carcinogenicity Category 2, Chronic Aquatic Hazard Category 2; H302, H319, H351, H411 ^[1]
Not Available Not Available Not Available Not Available	>60	Ingredients determined not to be hazardous	Not Applicable
Legend:	Classified by Chemwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I; 3. Classification drawn from EC Directive 1272/2008 - Annex VI 4. Classification drawn from C&L		

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

If skin contact occurs:

- ▶ Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

General

- If this product comes in contact with the eyes: ► Wash out immediately with fresh running water.
- ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.
- $\blacktriangleright \ \ \text{Removal of contact lenses after an eye injury should only be undertaken by skilled personnel}.$
- ▶ If fumes or combustion products are inhaled remove from contaminated area.

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	 Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay. Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
Eye Contact	If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).

For poisons (where specific treatment regime is absent):

BASIC TREATMENT

• Establish a patent airway with suction where necessary.

- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 L/min.
- Monitor and treat, where necessary, for pulmonary oedema.
- Monitor and treat, where necessary, for shock.
- Anticipate seizures.
- DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- Positive-pressure ventilation using a bag-valve mask might be of use.
- Monitor and treat, where necessary, for arrhythmias.
- > Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- Drug therapy should be considered for pulmonary oedema.
- Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

SECTION 5 FIREFIGHTING MEASURES

5.1. Extinguishing media

The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.		
5.3. Advice for firefighters	5.3. Advice for firefighters		
Fire Fighting	▶ Alert Fire Brigade and tell them location and nature of hazard.		
Fire/Explosion Hazard	► The material is not readily combustible under normal conditions. Decomposes on heating and produces toxic fumes of: , carbon dioxide (CO2) , acrolein , hydrogen chloride , phosgene		

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nitrogen oxides (NOx)

sulfur oxides (SOx)

other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

May emit corrosive fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	► Clean up all spills immediately.
Major Spills	Moderate hazard.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling	Avoid all personal contact, including inhalation. DO NOT allow clothing wet with material to stay in contact with skin	
Fire and explosion protection	See section 5	
Other information	► Store in original containers.	

7.2. Conditions for safe storage, including any incompatibilities

Suitable contain	Polyethylene or polypropylene container.
Storage incompatibil	 ▶ Avoid reaction with oxidising agents ▶ Avoid strong acids, bases.

7.3. Specific end use(s)

See section 1.2

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

DERIVED NO EFFECT LEVEL (DNEL)

Not Available

PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs)	glycerol	Glycerol, mist	10 mg/m3	Not Available	Not Available	Not Available

| EMERGENCY LIMITS

Ingredient	Material name TEB		EL-1	TEEL-2	TEEL-3
glycerol	Glycerine (mist); (Glycerol; Glycerin) 45		mg/m3	860 mg/m3	2,500 mg/m3
Ingredient	Original IDLH		Revised IDLH		
glycerol	Not Available		Not Available		
C.I. Basic Violet 11:1 tetrachlorozincate(1-)	Not Available		Not Available		
C.I. Basic Red 1	Not Available		Not Available		
Ingredients determined not to be hazardous	Not Available		Not Available		

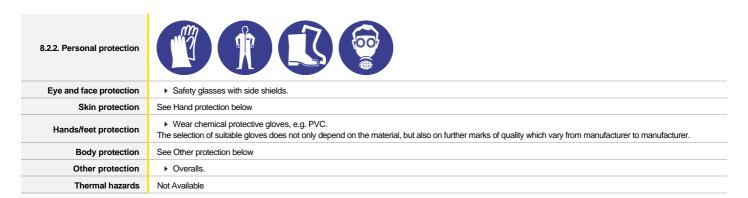
8.2. Exposure controls

8.2.1. Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.

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Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the computergenerated selection:

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Material	СРІ
BUTYL	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NITRILE	С
PVA	С
VITON	С

^{*} CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory: may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

Respiratory protection

Type AK-P Filter of sufficient capacity.

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AK-AUS P2	-	AK-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AK-AUS / Class 1 P2	-
up to 100 x ES	-	AK-2 P2	AK-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen $cyanide(HCN),\ B3 = Acid\ gas\ or\ hydrogen\ cyanide(HCN),\ E = Sulfur\ dioxide(SO2),\ G = Acid\ gas\ or\ hydrogen\ cyanide(HCN)$ Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Fluorescent orange liquid with neutral odour; mixes with water.		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Jpper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

^{*} Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

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9.2. Other information

Not Available

SECTION 10 STABILITY AND REACTIVITY

10.1.Reactivity	See section 7.2
10.2. Chemical stability	► Unstable in the presence of incompatible materials.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 TOXICOLOGICAL INFORMATION

Skin Irritation/Corrosion

Serious Eye

sensitisation Mutagenicity 0

Damage/Irritation
Respiratory or Skin

1.1. Information on toxico	ological effects			
Inhaled	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. The material can cause respiratory irritation in some persons.			
Ingestion	The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models).			
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.			
Eye	This material can cause eye irritation and damage in some persons.			
Chronic	There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother. Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.			
44 405 40 1	TOXICITY	IRRITATION		
1148542 Lyreco Highlighter Ink/ ORANGE	Not Available	Not Available		
	TOXICITY	IRRITATION		
glycerol	dermal (guinea pig) LD50: 54000 mg/kg ^[1]	Not Available		
	Oral (rat) LD50: >20-<39800 mg/kg> ^[1]	 		
	TOXICITY	IRRITATION		
C.I. Basic Violet 11:1 tetrachlorozincate(1-)	Inhalation (rat) LC50: 0.83 mg/l/4h **[2]	Eye (rabbit): iri	itating *	
	Oral (rat) LD50: 220 mg/kg ^[2]	Skin (rabbit): non-irritating *		
	TOXICITY	IRRITATION		
C.I. Basic Red 1	dermal (rat) LD50: >2500 mg/kg ^[2]	Eye (rabbit): iri	itating *	
	Oral (rat) LD50: 250 mg/kg ^[2]	Skin (rabbit): n	on-irritating *	
Legend:	Value obtained from Europe ECHA Registered Substances - Acute toxici extracted from RTECS - Register of Toxic Effect of chemical Substances	ty 2.* Value obtained i	from manufacturer's SDS. Unless otherwise specified data	
GLYCEROL	At your kink concentrations, a vidence predicts that always I may course treat	mor irritation of the ek	n, ever, dignetive treet and ainvey	
GLICEROL	At very high concentrations, evidence predicts that glycerol may cause tree. The substance is classified by IARC as Group 3:	nor, imation of the SK	n, eyes, digestive tract and allway.	
C.I. BASIC RED 1	NOT classifiable as to its carcinogenicity to humans. * BASF Canada			
GLYCEROL & C.I. BASIC VIOLET 11:1 FETRACHLOROZINCATE(1-)	Asthma-like symptoms may continue for months or even years after exposu	re to the material ceas	es.	
Acute Toxicity	✓	Carcinogenicity	✓	
. louid Toxibity	*	Jan Jan Jegon Horty	,	

Legend:	【 – Data available but does not fill the criteria for classification

Reproductivity

Aspiration Hazard

0

STOT - Single Exposure

STOT - Repeated Exposure

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✓ – Data available to make classification
 ○ – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
glycerol	LC50	96	Fish	>11mg/L	2
glycerol	EC50	96	Algae or other aquatic plants	77712.039mg/L	3
glycerol	EC0	24	Crustacea	>500mg/L	1
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. **DO NOT** discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
glycerol	LOW	LOW

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
glycerol	LOW (LogKOW = -1.76)

12.4. Mobility in soil

Ingredient	Mobility
glycerol	HIGH (KOC = 1)

12.5.Results of PBT and vPvB assessment

	P	В	Т
Relevant available data	Not Available	Not Available	Not Available
PBT Criteria fulfilled?	Not Available	Not Available	Not Available

12.6. Other adverse effects

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product / Packaging disposal	 Containers may still present a chemical hazard/ danger when empty. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. DO NOT allow wash water from cleaning or process equipment to enter drains. Recycle wherever possible.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable
Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS	
14.1.UN number	Not Applicable
14.2.UN proper shipping	Not Applicable

14.1.UN number	Not Applicable
14.2.UN proper shipping name	Not Applicable
14.3. Transport hazard class(es)	Class Not Applicable Subrisk Not Applicable
14.4.Packing group	Not Applicable
14.5.Environmental hazard	Not Applicable
14.6. Special precautions for user	Hazard identification (Kemler) Not Applicable Classification code Not Applicable

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	Hazard Label	Not Applicable	
	Special provisions	Not Applicable	
	Limited quantity	Not Applicable	
Air transport (ICAO-IATA / E	OGR): NOT REGULATED FOR	TRANSPORT OF DAN	GEROUS GOODS
14.1. UN number	Not Applicable		
14.2. UN proper shipping name	Not Applicable		
	ICAO/IATA Class Not App	plicable	
14.3. Transport hazard class(es)	ICAO / IATA Subrisk Not Ap	plicable	
0.000(00)	ERG Code Not Ap	plicable	
14.4. Packing group	Not Applicable		
14.5. Environmental hazard	Not Applicable		
	Special provisions		Not Applicable
	Cargo Only Packing Instructions	3	Not Applicable
	Cargo Only Maximum Qty / Pack	(Not Applicable
14.6. Special precautions for user	Passenger and Cargo Packing I	Cargo Packing Instructions Not Applicable	
	Passenger and Cargo Maximum	Passenger and Cargo Maximum Qty / Pack Not Applicable	
	Passenger and Cargo Limited Quantity Packing Instructions Not Applicable		Not Applicable
	Passenger and Cargo Limited Maximum Qty / Pack Not Applicable		
Sea transport (IMDG-Code	/ GGVSee): NOT REGULATE	D FOR TRANSPORT O	F DANGEROUS GOODS
Sea transport (IMDG-Code	/ GGVSee): NOT REGULATE Not Applicable	D FOR TRANSPORT O	F DANGEROUS GOODS
	<u> </u>	D FOR TRANSPORT O	F DANGEROUS GOODS
14.1. UN number 14.2. UN proper shipping name	Not Applicable		F DANGEROUS GOODS
14.1. UN number 14.2. UN proper shipping	Not Applicable Not Applicable	le	F DANGEROUS GOODS
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es)	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable	le	F DANGEROUS GOODS
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard	Not Applicable Not Applicable IMDG Class Not Applicable	le	F DANGEROUS GOODS
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable Not Applicable Not Applicable	le le	F DANGEROUS GOODS
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazard	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable Not Applicable Not Applicable EMS Number Not Appli	le le	F DANGEROUS GOODS
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazard	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable Not Applicable Not Applicable	le le cable	F DANGEROUS GOODS
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazard 14.6. Special precautions for user	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable Not Applicable Not Applicable EMS Number Not Appli Special provisions Not Appli	le l	
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazard 14.6. Special precautions for user	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable Not Applicable Not Applicable EMS Number Not Appli Special provisions Not Appli Limited Quantities Not Appli	le l	
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazard 14.6. Special precautions for user	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable Not Applicable Not Applicable EMS Number Not Applicable EMS number Not Applicable Limited Quantities Not Applicable t (ADN): NOT REGULATED F	le l	
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazard 14.6. Special precautions for user Inland waterways transpor 14.1. UN number 14.2. UN proper shipping	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable Not Applicable EMS Number Not Applicable EMS Number Not Applicable Limited Quantities Not Applicable t (ADN): NOT REGULATED F	icable cable	
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazard 14.6. Special precautions for user Inland waterways transpor 14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable Not Applicable EMS Number Not Appli Special provisions Not Appli Limited Quantities Not Appli t (ADN): NOT REGULATED F Not Applicable Not Applicable	icable cable	
14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazard 14.6. Special precautions for user Inland waterways transpor 14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es)	Not Applicable Not Applicable IMDG Class Not Applicable IMDG Subrisk Not Applicable Not Applicable EMS Number Not Applicable EMS Number Not Applicable EMS Number Not Applicable Imited Quantities Not Applicable t (ADN): NOT REGULATED F Not Applicable Not Applicable Not Applicable	icable cable	

Transport in bulk according to Annex II of MARPOL and the IBC code

Special provisions

Equipment required

Fire cones number

Limited quantity

Not Applicable

14.6. Special precautions for

SECTION 15 REGULATORY INFORMATION

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

Not Applicable

Not Applicable

Not Applicable Not Applicable

GLYCEROL(56-81-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

European Customs Inventory of Chemical Substances ECICS (English)

UK Workplace Exposure Limits (WELs)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

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European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. BASIC RED 1(989-38-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

European Customs Inventory of Chemical Substances ECICS (English)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Commission Regulation (EU) 2015/830, Regulation (EC) No 1272/2008 and their amendments

15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
glycerol	56-81-5	Not Available	01-2119471987-18-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Wng, GHS08, Dgr	H315, H319, H372, H335
2	Not Classified, Skin Irrit. 2, Eye Irrit. 2, STOT RE 2, STOT RE 1, STOT SE 3	Wng, GHS08, Dgr	H315, H319, H372, H335

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
C.I. Basic Violet 11:1 tetrachlorozincate(1-)	73398-89-7	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4, Eye Dam. 1, Acute Tox. 2, Aquatic Chronic 2	GHS07, GHS06, GHS09, GHS05, Dgr	H302, H318, H330
2	Acute Tox. 4, Eye Dam. 1, Acute Tox. 2, Aquatic Chronic 2, Acute Tox. 3, Skin Irrit. 2, Not Classified	GHS06, GHS09, GHS05, Dgr, Wng	H318, H330, H301, H315

 $Harmonisation \ \ Code\ 1 = The\ most\ prevalent\ classification.\ Harmonisation\ \ Code\ 2 = The\ most\ severe\ classification.$

Ingredient	CAS number	Index No	ECHA Dossier	
C.I. Basic Red 1	989-38-8	Not Available	Not Available	
Harmonisation (C&L	Hazard Class and Category Code(s)		Pictograms Signal Word	Hazard Statement

	Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
	1	Acute Tox. 3, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1	GHS09, GHS06, GHS05, Dgr	H301, H318
	2	Acute Tox. 3, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1, Acute Tox. 4, Aquatic Chronic 2, Muta. 1B, Repr. 1B, Muta. 2, Repr. 2, Not Classified, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3	GHS09, GHS06, GHS05, Dgr, GHS08, Wng	H301, H318, H340, H360, H315, H335, H312

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Υ
Canada - NDSL	N (C.I. Basic Violet 11:1 tetrachlorozincate(1-); C.I.
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Υ
Japan - ENCS	N (C.I. Basic Violet 11:1 tetrachlorozincate(1-))
Korea - KECI	Υ
New Zealand - NZIoC	Y
Philippines - PICCS	Υ
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Full text Risk and Hazard codes

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H318	Causes serious eye damage.

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H330	Fatal if inhaled.
H331	Toxic if inhaled.
H340	May cause genetic defects.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Other information

Ingredients with multiple cas numbers

Name	CAS No
glycerol	56-81-5, 29796-42-7, 30049-52-6, 37228-54-9, 75398-78-6, 78630-16-7, 8013-25-0
C.I. Basic Violet 11:1 tetrachlorozincate(1-)	73398-89-7, 84522-23-6

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

Definitions and abbreviations

PC – TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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