



SAFETY DATA SHEET 30142 BLACK PEN INK

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

1.1. Product identifier

Product name 30142 BLACK PEN INK

Product number 45232

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

Identified uses inks

1.3. Details of the supplier of the safety data sheet

Supplier Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
SDS.EMEA@univarsolutions.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 45232

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226

Health hazards Not Classified

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements H226 Flammable liquid and vapour.

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Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/ container in accordance with local regulations.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

WATER 60-100% CAS number: 7732-18-5 EC number: 231-791-2
Classification Not Classified
GLYCERINE 10-30% CAS number: 56-81-5 EC number: 200-289-5 Exempt -Annex V exempted by Article 2(7) Acute Toxicity Estimate (oral):27200 mg/kg Acute Toxicity Estimate (dermal):56750 mg/kg Acute Toxicity Estimate (inhalation):> 2.75 mg/lDust/Mist
Classification Not Classified
ETHANOL 5-10% CAS number: 64-17-5 EC number: 200-578-6 REACH registration number: 01-2119457610-43-XXXX Acute Toxicity Estimate (oral): LD ₅₀ 10470 mg/kg, Oral, Rat Acute Toxicity Estimate (dermal): LD ₅₀ 15800 mg/kg, Dermal, Rat Acute Toxicity Estimate (inhalation): LC ₅₀ 20 mg/l, Inhalation, Rat Eye Irrit. 2 - H319 ≥ 50 %
Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319

30142 BLACK PEN INK**DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE**

<1%

CAS number: 3567-69-9

EC number: 222-657-4

REACH registration number: 01-2120703005-74-XXXX

Acute Toxicity Estimate (oral):> 10000 mg/kg

Acute Toxicity Estimate (dermal):> 2000 mg/kg

Classification

Not Classified

DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT

<1%

CAS number: 3844-45-9

EC number: 223-339-8

REACH registration number: 01-2120740569-45-XXXX

Acute Toxicity Estimate (oral):> 2000 mg/kg

Classification

Not Classified

TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE

<1%

CAS number: 1934-21-0

EC number: 217-699-5

REACH registration number: 01-2120116875-52-XXXX

Acute Toxicity Estimate (oral):> 1000 mg/kg

Classification

Not Classified

POTASSIUM (E,E) HEXA2,4 DIENOATE

<1%

CAS number: 24634-61-5

EC number: 246-376-1

Acute Toxicity Estimate (oral):10500 mg/kg

Acute Toxicity Estimate (dermal):2000 mg/lg

Acute Toxicity Estimate (inhalation):5.15 mg/l

Classification

Eye Irrit. 2 - H319

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CITRIC ACID ANHYDROUS

<0.1%

CAS number: 77-92-9

EC number: 201-069-1

REACH registration number: 01-2119457026-42-XXXX

Acute Toxicity Estimate (oral): 5400 mg/kg

Acute Toxicity Estimate (dermal): > 2000 mg/kg

Acute Toxicity Estimate (inhalation): ~ 75 mg/l Guinea pig 3 minutes

Classification

Eye Irrit. 2 - H319

STOT SE 3 - H335

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues.
Skin contact	Remove affected person from source of contamination. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Eye contact	May cause temporary eye irritation.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	When heated and in case of fire, toxic vapours/gases may be formed.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon.

5.3. Advice for firefighters

Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if safe to do so. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Avoid spilling. Avoid heat, flames and other sources of ignition.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

GLYCERINE

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ mist

ETHANOL

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE

Long-term exposure limit (8-hour TWA): WEL No std.

Short-term exposure limit (15-minute): WEL No std.

WEL = Workplace Exposure Limit.

Ingredient comments Observe any occupational exposure limits for the product or ingredients.

30142 BLACK PEN INK**GLYCERINE (CAS: 56-81-5)**

DNEL	Industry - Inhalation; Long term local effects: 56 mg/m ³ General population - Inhalation; Long term local effects: 33 mg/m ³ General population - Oral; Long term systemic effects: 229 mg/kg/day
PNEC	- Fresh water; 0.885 mg/l - marine water; 0.0885 mg/l - Intermittent release; 8.85 mg/l - STP; 1000 mg/l - Soil; 0.141 mg/kg - Sediment (Freshwater); 3.3 mg/kg - Sediment (Marinewater); 0.33 mg/kg

ETHANOL (CAS: 64-17-5)

Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Workers - Inhalation; Long term systemic effects: 950 mg/m ³ Workers - Inhalation; Short term local effects: 1900 mg/m ³ Workers - Dermal; Long term systemic effects: 343 mg/kg/day General population - Inhalation; Long term systemic effects: 114 mg/m ³ General population - Inhalation; Short term local effects: 950 mg/m ³ General population - Dermal; Long term systemic effects: 206 mg/kg/day General population - Oral; Long term systemic effects: 87 mg/kg/day
PNEC	- Fresh water; 0.96 mg/l - marine water; 0.79 mg/l - Intermittent release; 2.75 mg/l - STP; 580 mg/l - Sediment (Freshwater); 3.6 mg/kg - Sediment (Marinewater); 2.9 mg/kg - Soil; 0.63 mg/kg

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE (CAS: 3567-69-9)

Ingredient comments	No exposure limits known for ingredient(s).
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DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT (CAS: 3844-45-9)

Ingredient comments	No exposure limits known for ingredient(s).
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TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE (CAS: 1934-21-0)

Ingredient comments	No exposure limits known for ingredient(s).
DNEL	Workers - Inhalation; Long term : 372.52 mg/m ³ Workers - Dermal; Long term : 52.82 mg/kg/day General population - Inhalation; Long term : 91.86 mg/m ³ General population - Dermal; Long term : 26.41 mg/kg/day General population - Oral; Long term : 26.41 mg/kg/day

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PNEC	Fresh water; 120 µg/l
	marine water; 12 µg/l
	Intermittent release; 1.2 mg/l
	STP; 10 mg/l
	Sediment (Freshwater); 469.92 µg/kg
	Sediment (Marinewater); 46.992 µg/kg

POTASSIUM (E,E) HEXA2,4 DIENOATE (CAS: 24634-61-5)

Ingredient comments	No exposure limits known for ingredient(s).
DNEL	Workers - Dermal; Long term systemic effects: 40 mg/kg
	Workers - Inhalation; Long term systemic effects: 17.63 mg/m ³
	General population - Oral; Long term systemic effects: 2 mg/kg
	General population - Dermal; Long term systemic effects: 20 mg/kg
	General population - Inhalation; Long term systemic effects: 52.17 mg/m ³
	Workers - Oral; Long term local effects: 0.17 mg/cm ²
PNEC	General population - Inhalation; Long term local effects: 26.08 mg/m ³
	- Fresh water; 1 mg/l
	marine water; 0.1 mg/l
	Intermittent release; 4.8 mg/l
	- Sediment (Freshwater); 3.6 mg/kg
	Sediment (Marinewater); 0.36 mg/kg
	- STP; 10 mg/l
	- Soil; 1.67 mg/kg

CITRIC ACID ANHYDROUS (CAS: 77-92-9)

Ingredient comments	No exposure limits known for ingredient(s).
PNEC	- Fresh water; 0.44 mg/l
	- marine water; 0.044 mg/l
	- Sediment (Freshwater); 7.52 mg/kg
	- Sediment (Marinewater); 0.752 mg/kg
	- Soil; 29.2 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.

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Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Eye wash facilities and emergency shower must be available when handling this product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. If ventilation is inadequate, suitable respiratory protection must be worn. High-efficiency particulate filter. EN 136/140/141/145/143/149

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Black.
Odour	No information available.
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Pour Point	No information available.
Freezing Point	No information available.
Initial boiling point and range	No information available.
Flash point	49°C
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	No information available.
Bulk density	No information available.
Solubility(ies)	Soluble in water.
Partition coefficient	No information available.

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Auto-ignition temperature No information available.

Decomposition Temperature No information available.

Viscosity No information available.

Explosive properties No information available.

Explosive under the influence of a flame No information available.

Oxidising properties No information available.

9.2. Other information

Other information Not determined.

Refractive index No information available.

Particle size No information available.

Molecular weight No information available.

Volatility No information available.

Saturation concentration No information available.

Critical temperature No information available.

Volatile organic compound No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not determined.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid Flammable/combustible materials.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) No information available.

Acute toxicity - dermal

Notes (dermal LD₅₀) No information available.

30142 BLACK PEN INK**Acute toxicity - inhalation**

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Skin corrosion/irritation No information available.

Serious eye damage/irritation

Serious eye damage/irritation No information available.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No information available.

Germ cell mutagenicity

Genotoxicity - in vitro No information available.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Toxicokinetics

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation

Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion

May cause discomfort if swallowed.

Skin contact

Prolonged skin contact may cause temporary irritation.

Eye contact

May cause temporary eye irritation.

Toxicological information on ingredients.**GLYCERINE****Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 27,200.0

Species Rat

ATE oral (mg/kg) 27,200.0

Acute toxicity - dermal

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Acute toxicity dermal (LD₅₀ mg/kg) 56,750.0

Species Guinea pig

ATE dermal (mg/kg) 56,750.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ > 2.75 mg/l, Inhalation, Dust/Mist, Rat

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

Toxicokinetics

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion May cause discomfort if swallowed.

Skin contact Slightly irritating.

Eye contact May cause temporary eye irritation.

ETHANOL

30142 BLACK PEN INK**Acute toxicity - oral**

Acute toxicity oral (LD₅₀
mg/kg) 10,470.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 15,800.0

Species Rat

Acute toxicity - inhalation

Acute toxicity inhalation
(LC₅₀ vapours mg/l) 20.0

Species Rat

ATE inhalation (vapours
mg/l) 20.0

Skin corrosion/irritation

Animal data Not irritating. Rabbit OECD 404

Serious eye damage/irritation

Serious eye
damage/irritation Irritating. Rabbit OECD 405

Respiratory sensitisation

Respiratory sensitisation Not sensitising.

Skin sensitisation

Skin sensitisation Not sensitising. Mouse OECD 429

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity -
fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard No information available.

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Toxicokinetics	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Inhalation	Vapours in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
Ingestion	Ingestion of large amounts may cause unconsciousness. May cause nausea, headache, dizziness and intoxication.
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	Causes serious eye irritation.

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE

Acute toxicity - oral

Notes (oral LD₅₀)	LD ₅₀ > 10000 mg/kg, Oral, Rat Based on available data the classification criteria are not met.
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Acute toxicity - dermal

Notes (dermal LD₅₀)	LD ₅₀ > 2000 mg/kg, Dermal, Rat Based on available data the classification criteria are not met.
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Acute toxicity - inhalation

Notes (inhalation LC₅₀)	Based on available data the classification criteria are not met.
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Skin corrosion/irritation

Animal data	Not irritating. OECD 402
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Serious eye damage/irritation

Serious eye damage/irritation	Not irritating.
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Respiratory sensitisation

Respiratory sensitisation	No information available.
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Skin sensitisation

Skin sensitisation	Not sensitising.
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Germ cell mutagenicity

Genotoxicity - in vitro	Negative.
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Carcinogenicity

Carcinogenicity	There is no evidence that the product can cause cancer.
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Reproductive toxicity

Reproductive toxicity - fertility	No information available.
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Specific target organ toxicity - single exposure

STOT - single exposure	No information available.
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Specific target organ toxicity - repeated exposure

STOT - repeated exposure	No information available.
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Aspiration hazard

Aspiration hazard No information available.

Toxicokinetics

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation

Dust in high concentrations may irritate the respiratory system.

Ingestion

May cause discomfort if swallowed.

Skin contact

Skin irritation should not occur when used as recommended.

Eye contact

Solid particles trapped behind the eyelid may cause abrasive damage.

DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 2000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Not irritating. Rabbit OECD 404

Serious eye damage/irritation

Serious eye damage/irritation Not irritating. Rabbit OECD 405

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met. Not sensitising.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met. Local Lymph Node Assay (LLNA) - Mouse: Not sensitising. OECD 429

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties.

Genotoxicity - in vivo This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility This substance has no evidence of toxicity to reproduction. Read-across data.

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Reproductive toxicity - development This substance has no evidence of toxicity to reproduction. Read-across data.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Toxicokinetics The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation Dust in high concentrations may irritate the respiratory system.

Ingestion May cause discomfort if swallowed.

Skin contact Skin irritation should not occur when used as recommended.

Eye contact Solid particles trapped behind the eyelid may cause abrasive damage.

TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 1000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) No information available.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Animal data Prolonged skin contact may cause redness and irritation.

Serious eye damage/irritation

Serious eye damage/irritation Solid particles trapped behind the eyelid may cause abrasive damage.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met. Local Lymph Node Assay (LLNA) - Mouse: Not sensitising. OECD 429

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties.

Carcinogenicity

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

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Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

Toxicokinetics

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation

Dust in high concentrations may irritate the respiratory system.

Ingestion

May cause discomfort if swallowed.

Skin contact

Prolonged skin contact may cause redness and irritation. May cause skin sensitisation or allergic reactions in sensitive individuals.

Eye contact

Solid particles trapped behind the eyelid may cause abrasive damage.

POTASSIUM (E,E) HEXA2,4 DIENOATE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 10500 mg/kg, Oral, Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rat

Notes (dermal LD₅₀) OECD 402

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 5.15

Notes (inhalation LC₅₀) OECD 403

Skin corrosion/irritation

Animal data Not irritating. Rabbit OECD 404

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation. Rabbit OECD 405

Respiratory sensitisation

Respiratory sensitisation Not sensitising.

Skin sensitisation

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Skin sensitisation	Not sensitising. Guinea pig
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Ames test: Negative. Does not contain any substances known to be mutagenic.
Genotoxicity - in vivo	Not available.
<u>Carcinogenicity</u>	
Carcinogenicity	No evidence of carcinogenicity in animal studies.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	No information available.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
<u>Aspiration hazard</u>	
Aspiration hazard	Based on available data the classification criteria are not met.
<u>Toxicokinetics</u>	
	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Inhalation	Dust in high concentrations may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	Slightly irritating.
Eye contact	Causes serious eye irritation.
<u>CITRIC ACID ANHYDROUS</u>	
<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	5,400.0
Species	Mouse
Notes (oral LD₅₀)	LD ₅₀ 5400 mg/kg, Oral, Mouse OECD 401
ATE oral (mg/kg)	5,400.0
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	LD ₅₀ > 2000 mg/kg, Dermal, Rat
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	~ 75 mg/l, 3 minutes, Dust/Mist Guinea pig Respiratory tract Coughing.
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Based on available data the classification criteria are not met. Not irritating. Rabbit OECD 404

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Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation. Rabbit OECD 405

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met. Not sensitising.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met. Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met. Bacterial reverse mutation test: Negative. Micronucleus assay: Negative.

Genotoxicity - in vivo Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met. There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation.

Target organs Respiratory tract

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 4000 mg/kg, Oral, Rat 10 days
LOAEL 8000 mg/kg, Oral, Rat 10 days

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

Toxicokinetics

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation

Dust in high concentrations may irritate the respiratory system. May cause respiratory irritation. Respiratory tract Coughing.

Ingestion

May cause discomfort if swallowed.

Skin contact

Skin irritation should not occur when used as recommended.

Eye contact

Causes serious eye irritation.

SECTION 12: Ecological information

Ecotoxicity

The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

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GLYCERINE

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

ETHANOL

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

POTASSIUM (E,E) HEXA2,4 DIENOATE

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

CITRIC ACID ANHYDROUS

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

Ecological information on ingredients.

GLYCERINE

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 54000 mg/l, Oncorhynchus mykiss (Rainbow trout)
LC50, 96 hour: >= 885 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC50, 24 hours: > 10000 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC50, 72 hours: > 2900 mg/l, Freshwater algae

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Acute toxicity - microorganisms

EC₅₀, 3 hour: > 1000 mg/l, Activated sludge

ETHANOL

Toxicity

Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish

LC₅₀, 48 hours: > 100 mg/l, Leuciscus idus (Golden orfe)
LC₅₀, 96 hour: 14200 mg/l, Pimephales promelas (Fat-head Minnow)
LC₅₀, 96 hour: 13000 mg/l, Oncorhynchus mykiss (Rainbow trout)
LC₅₀, 96 hour: 12000 - 16000 mg/l, Oryzias latipes (Red killifish)

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: 12340 mg/l, Daphnia magna

Acute toxicity - aquatic plants

EC₅₀, 48 hours: > 100 mg/l, Selenastrum capricornutum
EC₅₀, 72 hour: 275 mg/l, (Chlorella vulgaris)

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates

NOEC, 9 day: 9.6 mg/l, Daphnia magna

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE

Toxicity

Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish

LC₅₀, 96 hours: > 100 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates

EC₅₀, 48 days: 115.097 mg/l, Daphnia magna

DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT

Toxicity

Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish

LC₅₀, 96 hours: > 220 - < 460 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: > 1000 mg/l, Daphnia magna

Acute toxicity - microorganisms

EC₅₀, 3 hours: > 1000 mg/l, Activated sludge
OECD 209

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates

NOEC, 21 days: >=10 mg/l, Daphnia magna
OECD 211

TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE

Toxicity

Not considered toxic to fish.

Acute aquatic toxicity

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Acute toxicity - fish	LC ₅₀ , 96 hours: 120 mg/l, Leuciscus idus (Golden orfe)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 125 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 125 mg/l, Freshwater algae
Acute toxicity - microorganisms	EC ₅₀ , 3 hours: > 1000 ,

POTASSIUM (E,E) HEXA2,4 DIENOATE

Toxicity	Not considered toxic to fish.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 96 hours: > 1000 mg/l, Oncorhynchus mykiss (Rainbow trout) OECD 203
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 982 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	EC ₅₀ , 48 hours: 480 mg/l, Algae
Acute toxicity - microorganisms	EC ₅₀ , 3 hours: > 100 mg/l, Activated sludge OECD 209

CITRIC ACID ANHYDROUS

Toxicity	Not considered toxic to fish.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 48 hours: 440 mg/l, Leuciscus idus (Golden orfe) OECD 203
Acute toxicity - aquatic invertebrates	EC ₅₀ , 24 hours: 1535 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	NOEC, 8 days: 425 mg/l, Algae
Acute toxicity - microorganisms	, 16 hours: >10000 mg/l, Pseudomonas putida

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

GLYCERINE

Persistence and degradability	The product is readily biodegradable.
Biodegradation	- Degradation 82%: 20 days OECD 301D - Degradation 63%: 28 day OECD 301C

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Biological oxygen demand 0.87 g O₂/g substance

ETHANOL

Persistence and degradability The product is readily biodegradable. The product is degraded completely by photochemical oxidation.

Biodegradation - Degradation 84%: 20 day
- Half-life : 1 - <10 days

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation 86%: 24 hours

DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT

Persistence and degradability The product is not readily biodegradable.

TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE

Persistence and degradability The product is readily biodegradable.

POTASSIUM (E,E) HEXA2,4 DIENOATE

Persistence and degradability The product is readily biodegradable.

CITRIC ACID ANHYDROUS

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation 97%: 28 days
OECD 301B

Biological oxygen demand 0.526 g O₂/g substance

Chemical oxygen demand 0.728 g O₂/g substance

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

GLYCERINE

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: -1.76

30142 BLACK PEN INK**ETHANOL**

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: - 0.31

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE

Bioaccumulative potential BCF: 3.162,

Partition coefficient log Pow: -0.001

DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient No information available.

TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: -1.572

POTASSIUM (E,E) HEXA2,4 DIENOATE

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: 1.33 Calculation method.

CITRIC ACID ANHYDROUS

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient log Pow: -1.80 - -0.2

12.4. Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.

Ecological information on ingredients.**GLYCERINE**

Mobility The product is soluble in water.

ETHANOL

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces. The product is water-soluble and may spread in water systems.

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE

Mobility The product is soluble in water.

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DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT

Mobility The product is soluble in water.

TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE

Mobility The product is soluble in water.

POTASSIUM (E,E) HEXA2,4 DIENOATE

Mobility The product is soluble in water.

CITRIC ACID ANHYDROUS

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

GLYCERINE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

ETHANOL

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

POTASSIUM (E,E) HEXA2,4 DIENOATE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

30142 BLACK PEN INK**CITRIC ACID ANHYDROUS****Results of PBT and vPvB assessment**

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects**Other adverse effects**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Ecological information on ingredients.**GLYCERINE****Other adverse effects**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

ETHANOL**Other adverse effects**

The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

DISODIUM 4-HYDROXY-3-[(4-SULPHONATONAPHTHYL)AZO]NAPHTHALENESULPHONATE**Cod**

1128.4g/g

Other adverse effects

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

DIHYDROGEN (ETHYL)[4-[4-[ETHYL(3-SULPHONATOBENZYL)]AMINO]-2'-SULPHONATOBENZHYDRYLIDENE]CYCLOHEXA-2,5-DIEN-1-YLIDENE](3-SULPHONATOBENZYL)AMMONIUM, DISODIUM SALT**Cod**

933.1g/g

Other adverse effects

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

TRISODIUM 5-HYDROXY-1-(4-SULPHOPHENYL)-4-(4-SULPHOPHENYLAZO)PYRAZOLE-3-CARBOXYLATE**Other adverse effects**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

POTASSIUM (E,E) HEXA2,4 DIENOATE

30142 BLACK PEN INK

Other adverse effects The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

CITRIC ACID ANHYDROUS

Other adverse effects The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number

UN No. (ADR/RID)	1993
UN No. (IMDG)	1993
UN No. (ICAO)	1993
UN No. (ADN)	1993

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHANOL)
Proper shipping name (IMDG)	FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHANOL)
Proper shipping name (ICAO)	FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHANOL)
Proper shipping name (ADN)	FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHANOL)

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID label	3
IMDG class	3
ICAO class/division	3

Transport labels



14.4. Packing group

ADR/RID packing group	III
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30142 BLACK PEN INK

IMDG packing group III

ICAO packing group III

ADN packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-E, S-E

Emergency Action Code •3YE

Hazard Identification Number 33
(ADR/RID)

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to No information required.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
COMMISSION REGULATION (EU) 2020/878 of 18 June 2020
This product may impact SEVESO storage regulations.

Seveso Directive - Control of P5c
major accident hazards**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

SECTION 16: Other information

30142 BLACK PEN INK

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Classification procedures according to Regulation (EC) 1272/2008

Flam. Liq. 3 - H226: On basis of test data.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

13/05/2023

30142 BLACK PEN INK

Version number	2.000
Supersedes date	12/02/2015
SDS number	45232
SDS status	Approved.
Hazard statements in full	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
Signature	Lisa Bland

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.