

SAFETY DATA SHEET

Authored according to (EC) No.1907/2006 and amendment (EU) 2015/830

SDS ISSUE DATE

11/04/2025

SDS REVISION

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1.0 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Product Form	Highlighter Pen
Product Name	AFH (ALL COLOURS)

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE/MIXTURE AND USES ADVISED AGAINST

1.2.1 RELEVANT IDENTIFIED USES

Use of the substance/mixture	Marking of materials.
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1.2.2 USES ADVISED AGAINST

Restriction on use	None specified.
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1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier	OX Tools UK
Company Address	102-108 Clifton Street, Shoreditch, London, EC2A 4HW, United Kingdom
Telephone	+44 20 8676 9990
Fax	None
E-mail	info.uk@oxtools.com

1.4 EMERGENCY TELEPHONE NUMBER

999

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In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

2.0 HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE/MIXTURE

The product is not classified according to Regulation (EC) No. 1272/2008 (CLP)

2.2 LABEL ELEMENTS

Hazard Pictograms	Not applicable
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Signal Word	Not applicable
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Hazard Statements	Not applicable
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Precautionary Statements	Not applicable
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Response Precautionary Codes	Not applicable
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Storage Precautionary Codes	Not applicable
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Disposal Precautionary Codes	Not applicable
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2.3 OTHER HAZARDS

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0.1%.

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3.0 COMPOSITION/INFORMATION ON INGREDIENTS**3.1 SUBSTANCES**

Not applicable

3.2 MIXTURES

Chemical name	Common names and synonyms	CAS number	EC number	Registration number	Classification according to Regulation (EC) No 1278/2008 (CLP)	Concentration
Water	Water	7732-18-5	231-791-2	-	Not classified.	44.2%
4,4'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one]	Fluorescent Pigment orange	3520-72-7	222-530-3	-	Not classified.	30.0%
Glycerol	Glycerin	56-81-5	200-289-5	-	Not classified.	15.0%
Propane-1,2-diol	Propylene Glycol	57-55-6	200-338-0	-	Not classified.	10.0%
2,2',2''-nitrilotriethanol	Triethanolamine	102-71-6	203-049-8	-	Not classified.	0.5%
POLYOXYETHYLENE LAURYL ETHER PHOSPHATE	Surfactant	39464-66-9	609-689-8	-	Not classified.	0.3%

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4.0 FIRST AID MEASURES**4.1 DESCRIPTION OF FIRST AID MEASURES**

General description: No special measures required under normal conditions.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Immediately rinse with water.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If symptoms persist consult doctor.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

No further relevant information available.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No further relevant information available.

5.0 FIRE FIGHTING MEASURES**5.1 EXTINGUISHING MEDIA**

Suitable Extinguishing Media Sand, foam, dry chemical, carbon dioxide (CO₂), Alcohol resistant foams (ATC) are preferred, if available.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

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5.3 ADVICE FOR FIREFIGHTERS

Protective equipment: Full protective suit and respiratory protection.

6.0 ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear protective equipment. Keep unprotected persons away.

6.2 ENVIRONMENTAL PRECAUTIONS

Do not allow to enter sewers/ surface or ground water.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Pick up using mechanical assistance.

Dispose contaminated material as waste according to section 13 Ensure adequate ventilation.

6.4 REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7.0 HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

For the general occupational hygienic measures refer to Section 8.

Information about fire and explosion protection:

Normal measures for fire prevention.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES REQUIREMENTS TO BE MET BY STOREROOMS AND RECEPTACLES

Store in a cool location.

Information about storage in one common storage facility:

Not required.

Further information about storage conditions:

Keep container tightly sealed. Store in cool, dry conditions in well-sealed receptacles.

7.3 SPECIFIC END USE(S)

No further relevant information available.

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8.0 EXPOSURE CONTROLS/ PERSONAL PROTECTION**8.1 APPROPRIATE ENGINEERING CONTROLS**

Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.

Personal protective equipment

Respiratory protection: Not required.

Protection of hands: Protective gloves

The glove material must be impermeable and resistant to the product.

No recommendation to the glove material can be given for the product.

Eye protection: Tightly sealed goggles

8.2 ENVIRONMENTAL EXPOSURE CONTROLS

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

Ingredients with limit values that require monitoring at the workplace:

Component	Glycerin			
CAS No.	56-81-5			
	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m3	ppm	mg/m3
Belgium		10		
Canada - Ontario		10		

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Canada - Québec		10		
Finland		20		
France		10		
Germany (AGS)		200 (1)		400 (1)(2)
Germany (DFG)		200 (1)		400 (1)(2)
Ireland		10		
New Zealand		10 (1)		
Poland		10		
Singapore		10		
South Korea		10		
Spain		10		
Switzerland		50 inhalable aerosol		100 inhalable aerosol
USA - OSHA		15 inhalable dust		
		5 respirable dust		
United Kingdom		10		
	Remarks			
Australia	(1) The value for inhalable dust containing no asbestos and less than 1% free silica.			
Germany (AGS)	(1) Inhalable fraction (2) 15 minutes average value			
Germany (DFG)	(1) Inhalable fraction (2) 15 minutes average value			
New Zealand	(1) The value for inhalable dust containing no asbestos and less than 1% free silica.			

Component	Propylene Glycol			
CAS No.	57-55-6			
	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m3	ppm	mg/m3
Australia	150	474		
Canada - Ontario	50	155		
Ireland	150	470		
New Zealand	150 (1)	474		
		10 (1)		
United Kingdom	150	474		
	Remarks			
New Zealand	(1) particulates only			

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Component	Triethanolamine			
CAS No.	102-71-6			
	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m3	ppm	mg/m3
Australia		5		
Austria	0,8	5 inhalable aerosol	0,16	10 inhalable aerosol
Belgium		5		
Canada - Ontario	0,5	3,1		

Component	Triethanolamine			
CAS No.	102-71-6			
Canada - Québec		5		
Denmark	0,5	3,1	1	6,2
Finland		5		
Germany (DFG)		5 (1)		10 (1)(2)
Ireland		5		
New Zealand		5		
Singapore		5		
Spain		5		
Sweden	0,8	5	1,6 (1)	10 (1)
Switzerland		5 (1)		10 (1)(2)
	Remarks			
Germany (DFG)	(1) Inhalable fraction (2) 15 minutes average value			
Sweden	(1) 15 minutes average value			
Switzerland	(1) Inhalable fraction (2) 15 minutes average value			

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9.0 PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Property	pure CAS 56-81-5	pure CAS 57-55-6	pure CAS 102-71-6	pure CAS 7732-18-5	pure CAS 3520-72-7	pure CAS 39464-66-9
Appearance	Liquid	Liquid	Liquid	Liquid	Liquid	Liquid
Odour	Mild odor	Practically odorless	Slight ammonical odor			
Odour threshold	No data available	No data available	No data available	No data available	No data available	No data available
pH	Neutral to litmus		pH = 10.5 (0.1 N aqueous solution); strong base			
Melting point/freezing point	18.17 °C	< -20 °C	20.5 °C	0 °C		
Initial boiling point and boiling range	290 °C	184 °C	336.1 °C	100°C	716.7°C	304.4°C
Flash point	199 °C	104 °C	179 °C	100°C	387.3°C	74.9°C
Evaporation rate	No data available	No data available	No data available	No data available	No data available	No data available
Flammability	Class IIIB Combustible Liquid	Combustible	Combustible			
Upper/lower flammability or explosive limits		Lower: 2.6% by volume; Upper: 12.5% by volume				
Vapour pressure	0.003 mm Hg at 50°C	20 Pa at 25 °C	0 hPa at 40 °C	3 mm Hg at 37 °C	< 0 Pa at 25 °C	
Vapour density	3.1 (vs air)	2.62 (vs air)	5.14 (vs air)	<1 (vs air)		
Relative density	1.261 g/ml at 20 °C	1.03 at 20 °C	1 113.6 kg/m ³ at 40 °C	1.000g/mL at 3.98°C	1.445 g/cm ³ at 23 °C	

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Solubility(ies)	>= 100 mg/mL at 64° F	>= 100 mg/mL at 70° F	>= 100 mg/mL at 72° F		In water: 4.5 µg/L at 24 °C	
Partition coefficient n- octanol/water	log Pow = -1.75 at 25 °C	Pow = 0.085 at 20.5 °C; log Pow = -1.07 at 20.5 °C	log Pow = -2.3 at 25 °C		Pow = 14.8 at 24 °C; log Pow = 1.17 at 24 °C	
Auto-ignition temperature	370 °C	> 400 °C	324 °C		> 140 °C	
Decomposition temperature	No data available	No data available	No data available	No data available	No data available	No data available
Viscosity	dynamic viscosity (in mPa s) = 1 412 at 20°C	dynamic viscosity (in mPa s) = 43.428 at 25°C	kinematic viscosity (in mm²/s) = 830.2 at 20°C			

9.2 OTHER INFORMATION

No information available.

10.0 STABILITY AND REACTIVITY**10.1 REACTIVITY**

Stable under recommended storage and handling conditions.

10.2 CHEMICAL STABILITY

Stable under normal conditions of use, storage and transport.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reactions known.

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10.4 CONDITIONS TO AVOID

No information available.

10.5 INCOMPATIBLE MATERIALS

Acid and strong oxidising agents.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

No information available.

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11.0 TOXICOLOGICAL INFORMATION**11.1 INFORMATION ON TOXICOLOGICAL EFFECTS**

Acute toxicity:

Exposure Route	CAS Number	LD50/LC50	Species	Sex	Remarks
Oral	3520-72-7	> 2 100 mg/kg bw	Rat	Female	The test item contained 42% of the submission substance, i.e. 5000 mg test item/kg bw applied correspond to 2100 mg submission substance/kg bw
Oral	56-81-5	12.6 g/kg	Rat		
Oral	57-55-6	22 000 mg/kg bw	Rat	Male/Female	This value corresponds to 21.0 ml/kg bw, with standard errors of 19.2-23.9 ml/kg bw
Oral	102-71-6	6 400 mg/kg bw	Rat	Male/Female	
Inhalation	56-81-5	> 570 mg/cu m/l hr	Rat		
Inhalation	57-55-6	> 317 042 mg/m ³ air	Rabbit		
Inhalation	102-71-6	LC0 - saturated TEA atmosphere (approximately 1.8 mg/m ³)	Rat	Male/Female	
Dermal	3520-72-7	> 2 000 mg/kg bw	Rat	Male/Female	
Dermal	57-55-6	> 2 000 mg/kg bw	Rabbit		
Dermal	102-71-6	> 2 000 mg/kg bw	Rabbit		

Skin corrosion/irritation:

No information available.

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Serious eye damage/irritation:

No information available.

Respiratory or skin sensitization:

No sensitizing effects known.

Toxicokinetic, metabolism and distribution:

No information available.

CMR effects (carcinogenicity, mutagenicity, and toxicity for reproduction):

No information available.

11.2 INFORMATION ON OTHER HAZARDS

Endocrine disrupting properties

This mixture does not contain endocrine disruptors.

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12.0 ECOLOGICAL INFORMATION

12.1 TOXICITY

Aquatic toxicity:

CAS Number	Toxicity Type	Species	Value	Duration	Remarks
3520-72-7	Fish	Leuciscus idus melanotus	LC50 > 500 mg/L	96 h	500 mg/L test material corresponding to 225 mg/L submission substance
56-81-5	Fish	Oncorhynchus mykiss	LC50 54 000 mg/L	96 h	previous name: Salmo gairdneri
57-55-6	Fish	Oncorhynchus mykiss	LC50 40 613 mg/L	96 h	previous name: Salmo gairdneri
102-71-6	Fish	Pimephales promelas	LC50 11 800 mg/L	96 h	
56-81-5	Daphnia	Daphnia magna	LC50 1 955 mg/L	48 h	
57-55-6	Daphnia	Ceriodaphnia dubia	LC50 18 340 mg/L	48 h	
102-71-6	Daphnia	Ceriodaphnia dubia	EC50 609.88 mg/L	48 h	
3520-72-7	Algae	Desmodesmus subspicatus	NOEC 1 mg/L	72 h	previous name: Scenedesmus subspicatus
56-81-5	Algae	Scenedesmus quadricauda	EC3 > 10 000 mg/L	8 d	
57-55-6	Algae	Pseudokirchneriella subcapitata	EC50 24 200 mg/L	72 h	previous names: Raphidocelis subcapitata, Selenastrum capricornutum

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102-71-6	Algae	Desmodesmus subspicatus	EC50 512 mg/L	72 h	previous name: Scenedesmus subspicatus
3520-72-7	Microorganisms	activated sludge	NOEC 1 000 mg/L	3 h	Respiration rate
56-81-5	Microorganisms	Pseudomonas putida	Toxicity Threshold > 10 000 mg/L	16 h	
57-55-6	Microorganisms	Pseudomonas putida	NOEC > 20 000 mg/L	18 h	
102-71-6	Microorganisms	activated sludge	IC50 > 1 000 mg/L	3 h	Respiration rate

12.2 PERSISTENCE AND DEGRADABILITY

No information available.

12.3 BIOACCUMULATIVE POTENTIAL

No further relevant information available.

12.4 MOBILITY IN SOIL

No further relevant information available.

12.5 RESULTS OF PBT AND VPVB ASSESSMENT

PBT: Not applicable.

vPvB: Not applicable.

12.6 OTHER ADVERSE EFFECTS

No information available.

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13.0 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Recommendation:

Should not be disposed together with household waste.

Do not allow product to reach sewage system.

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14.0 TRANSPORT INFORMATION**14.1 UN-NUMBER**

ADR, RID, ADN, IMDG, IATA

Not applicable

14.2 UN PROPER SHIPPING NAME

ADR, RID, ADN, IMDG, IATA

Not applicable

14.3 TRANSPORT HAZARD CLASS (ES)

ADR, RID, ADN, IMDG, IATA

Not applicable

Class

Not applicable

Label

Not applicable

14.4 PACKING GROUP

Not applicable

14.5 ENVIRONMENTAL HAZARDS

Not applicable

14.6 SPECIAL PRECAUTIONS FOR USER

Not applicable

**14.7 TRANSPORT IN BULK ACCORDING TO
ANNEX II OF MARPOL 73/78 AND THE
IBC CODE "MODEL REGULATION"**

Not applicable

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15.0 REGULATORY INFORMATION

15.1 SAFETY, HEALTH & ENVIRONMENTAL REGULATIONS/LEGISLATION FOR THE SUBSTANCE/MIXTURE

The Safety Data Sheet is compiled according to the current UK requirements.

Regulation (EC) No 1272/2008

Commission of regulation 2017/542

Commission Regulation (EU) 2015/830

Regulation (EC) No 1907/2006

Regulation (EC) No 528/2012

Regulation (EU) No 1107/2009

SVHC Candidate list of REACH Regulation annex XIV Authorization

REACH Regulation Annex XVII Restriction

REACH Regulation Annex XIV Authorization List

Dangerous Goods Regulations

Recommendations on the Transport of Dangerous Goods-Model Regulations

International Maritime Dangerous Goods

Technical Instructions for the Safe Transport of Dangerous Goods

15.2 CHEMICAL SAFETY ASSESSMENT

None

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16.0 OTHER INFORMATION

DISCLAIMER: The information provided in this Safety Data Sheet (SDS) is based upon the current level of information available with us for the purpose of specifying the requirements regarding environment, health, and safety in conjunction with this product. It should not therefore be interpreted as a warranty for any specific characteristics of the product. It is the user's responsibility to take mentioned precautionary measures and ensure that this information is complete and sufficient for the use, processing, and handling of the product. This SDS was prepared by OX Tools UK; however, the information is provided without any warranty, expressed, or implied regarding its correctness. The SDS provided here relates only to this product and does not relate to its use in combination with any other product or material or in any process. The suitability of the product for any particular use needs to be investigated by the user; all risks of use, storage, handling, transportation, and disposal of the product are therefore assumed by the user. OX Tools UK or the above-named supplier, or any of its subsidiaries do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with use, storage, handling, transportation, and disposal of the product. Appropriate warnings and safe handling procedures should be provided to all handlers and users.