SAFETY DATA SHEET

Date of issue/Date of revision : 2 November 2026 **Version** : 1.02

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

1.1 Product identifier

Product name : ABC 3 BLACK TYPE 223 ANTIFOULING

Product code : 00333999

Product type : Liquid.

Other means of identification : Not available.

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

Product use : Industrial applications, Used by spraying.

Use of the substance/ mixture : Coating.; Antifouling products

Uses advised against : Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL
Tweemontstraat 104
B-2100 Deurne
Belgium
Telephone +32-33606311
Fax +32-33606435

e-mail address of person responsible for this SDS : Product.Stewardship.EMEA@ppg.com

1.4 Emergency telephone number

Supplier

+31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 3, H226
Acute Tox. 4, H302
Skin Irrit. 2, H315
Eye Dam. 1, H318
Skin Sens. 1, H317
Aquatic Acute 1, H400
Aquatic Chronic 1, H410

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

SECTION 2: Hazards identification

Hazard statements : Flammable liquid and vapour.
Harmful if swallowed.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.

Response : Collect spillage. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.
P280, P210, P273, P391, P305 + P351 + P338, P501

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
dicopper oxide	REACH #: 01-2119513794-36 EC: 215-270-7 CAS: 1317-39-1 Index: 029-002-00-X	≥25 - ≤50	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)	[1] [2]
butan-1-ol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≥5.0 - ≤10	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
rosin	REACH #: 01-2119480418-32 EC: 232-475-7 CAS: 8050-09-7	≥5.0 - ≤10	Skin Sens. 1, H317	[1] [2]

SECTION 3: Composition/information on ingredients

triiron tetraoxide	Index: 650-015-00-7 REACH #: 01-2119457646-28 EC: 215-277-5 CAS: 1317-61-9	≥5.0 - ≤10	Not classified.	[2]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥5.0 - ≤8.5	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≥1.0 - ≤5.0	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
N-ethyl-o(or p)-toluenesulphonamide	EC: 232-465-2 CAS: 8047-99-2	≥1.0 - ≤3.3	STOT SE 3, H336	[1]
copper(II) oxide	REACH #: 01-2119502447-44 EC: 215-269-1 CAS: 1317-38-0 Index: 029-016-00-6	≥1.0 - ≤5.0	Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)	[1]
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥0.10 - ≤2.1	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
copper	REACH #: 01-2119480154-42 EC: 231-159-6 CAS: 7440-50-8	≥1.0 - ≤5.0	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 3, H412 **See Section 16 for the full text of the H statements declared above.**	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Xylene: Several REACH registrations cover the REACH registered substance with xylene isomers, ethylbenzene (and toluene). The other REACH Registrations include: 01-2119555267-33 reaction mass of ethylbenzene and m-xylene and p-xylene, 01-2119486136-34 Aromatic hydrocarbons, C8, 01-2119539452-40 reaction mass of ethylbenzene and xylene.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

Hazards from the substance or mixture : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
sulfur oxides
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour. Put on appropriate personal protective equipment. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Occupational exposure limits

Product/ingredient name	Exposure limit values
dicopper oxide	**EH40/2005 WELs (United Kingdom (UK), 1/2020) [Copper and compounds]** STEL 15 minutes: 2 mg/m³ (as Cu). Form: Dusts and Mists. TWA 8 hours: 1 mg/m³ (as Cu). Form: Dusts and Mists.
butan-1-ol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 154 mg/m³. STEL 15 minutes: 50 ppm.
rosin	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Inhalation sensitiser. STEL 15 minutes: 0.15 mg/m³. Form: Fume. TWA 8 hours: 0.05 mg/m³. Form: Fume.
triiron tetraoxide	**EH40/2005 WELs (United Kingdom (UK), 9/2006)** WEL 15 min limit 15 minutes: 2 mg/m³ (As Fe). WEL 8 hrs limit 8 hours: 1 mg/m³ (As Fe).

SECTION 8: Exposure controls/personal protection

xylene	**EH40/2005 WELs (United Kingdom (UK), 1/2020) [xylene, o-,m-,p- or mixed isomers]** Absorbed through skin. STEL 15 minutes: 441 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 220 mg/m³. STEL 15 minutes: 100 ppm.
n-butyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 966 mg/m³. STEL 15 minutes: 200 ppm. TWA 8 hours: 724 mg/m³. TWA 8 hours: 150 ppm.
ethylbenzene	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 552 mg/m³. STEL 15 minutes: 125 ppm. TWA 8 hours: 100 ppm. TWA 8 hours: 441 mg/m³.

Biological exposure indices

Product/ingredient name	Exposure indices
xylene	**EH40/2005 BMGVs (United Kingdom (UK), 1/2020) [Xylene, o-, m-, p- or mixed isomers]** BGV: 650 mmol/mol creatinine, methyl hippuric acid [in urine]. Sampling time: post shift.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

dicopper oxide	DNEL - Workers - Long term - Inhalation	*Local*	1 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	1 mg/m³
	DNEL - Workers - Long term - Dermal	*Systemic*	137 mg/kg bw/day
	DNEL - General population - Long term - Oral	*Systemic*	0.041 mg/kg bw/day
	DNEL - General population - Short term - Oral	*Systemic*	0.082 mg/kg bw/day
butan-1-ol	DNEL - General population - Long term - Oral	*Systemic*	1.5625 mg/kg bw/day
	DNEL - General population - Long term - Dermal	*Systemic*	3.125 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Systemic*	55.357 mg/m³
	DNEL - General population - Long term - Inhalation	*Local*	155 mg/m³
	DNEL - Workers - Long term - Inhalation	*Local*	310 mg/m³
xylene	DNEL - General population - Long term - Oral	*Systemic*	5 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Local*	65.3 mg/m³
	DNEL - General population - Long term - Inhalation	*Systemic*	65.3 mg/m³
	DNEL - General population - Long term - Dermal	*Systemic*	125 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	*Systemic*	212 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	*Local*	221 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	221 mg/m³
	DNEL - General population - Short term - Inhalation	*Local*	260 mg/m³
	DNEL - General population - Short term - Inhalation	*Systemic*	260 mg/m³
	DNEL - Workers - Short term - Inhalation	*Local*	442 mg/m³

SECTION 8: Exposure controls/personal protection

	DNEL - Workers - Short term - Inhalation	*Systemic*	442 mg/m³
N-ethyl-o(or p)-toluenesulphonamide	DNEL - General population - Long term - Oral	*Systemic*	1.6 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Systemic*	5.65 mg/m³
	DNEL - General population - Long term - Dermal	*Systemic*	8.1 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	*Systemic*	13.5 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	*Systemic*	19.1 mg/m³
copper(II) oxide	DNEL - Workers - Long term - Inhalation	*Local*	1 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	1 mg/m³
	DNEL - Workers - Long term - Dermal	*Systemic*	137 mg/kg bw/day
	DNEL - General population - Long term - Oral	*Systemic*	0.041 mg/kg bw/day
	DNEL - General population - Short term - Oral	*Systemic*	0.082 mg/kg bw/day
n-butyl acetate	DNEL - Workers - Long term - Inhalation	*Systemic*	300 mg/m³
	DNEL - Workers - Long term - Dermal	*Systemic*	11 mg/m³
	DNEL - General population - Long term - Oral	*Systemic*	2 mg/kg bw/day
	DNEL - General population - Short term - Oral	*Systemic*	2 mg/kg bw/day
	DNEL - General population - Long term - Dermal	*Systemic*	3.4 mg/kg bw/day
	DNEL - General population - Short term - Dermal	*Systemic*	6 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	*Systemic*	7 mg/kg bw/day
	DNEL - Workers - Short term - Dermal	*Systemic*	11 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Systemic*	12 mg/m³
	DNEL - General population - Long term - Inhalation	*Local*	35.7 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	48 mg/m³
	DNEL - General population - Short term - Inhalation	*Local*	300 mg/m³
	DNEL - General population - Short term - Inhalation	*Systemic*	300 mg/m³
	DNEL - Workers - Long term - Inhalation	*Local*	300 mg/m³
	DNEL - Workers - Short term - Inhalation	*Local*	600 mg/m³
	DNEL - Workers - Short term - Inhalation	*Systemic*	600 mg/m³
ethylbenzene	DMEL - Workers - Long term - Inhalation	*Local*	442 mg/m³
	DMEL - Workers - Short term - Inhalation	*Systemic*	884 mg/m³
	DNEL - General population - Long term - Oral	*Systemic*	1.6 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Systemic*	15 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	77 mg/m³
	DNEL - Workers - Long term - Dermal	*Systemic*	180 mg/kg bw/day
	DNEL - Workers - Short term - Inhalation	*Local*	293 mg/m³
copper	DNEL - General population - Long term - Dermal	*Systemic*	137 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	*Systemic*	137 mg/kg bw/day
	DNEL - General population - Short term - Dermal	*Systemic*	273 mg/kg bw/day
	DNEL - Workers - Short term - Dermal	*Systemic*	273 mg/kg bw/day

PNECs

Product/ingredient name	Compartment Detail - Method	Value
dicopper oxide	Fresh water	0.0078 mg/l
	Fresh water sediment	87.1 mg/kg dwt
	Marine water	0.0056 mg/l
	Marine water sediment	676 mg/kg dwt
	Soil	64.6 mg/kg dwt
	Sewage Treatment Plant	0.23 mg/l
butan-1-ol	Fresh water	0.082 mg/l
	Marine water	0.0082 mg/l
	Fresh water sediment	0.178 mg/kg
	Marine water sediment	0.0178 mg/kg
	Soil	0.015 mg/kg
	Sewage Treatment Plant	2476 mg/l
rosin	Fresh water - Assessment Factors	0.002 mg/l
	Marine water - Assessment Factors	0 mg/l

SECTION 8: Exposure controls/personal protection

	Sewage Treatment Plant - Assessment Factors	1000 mg/l
	Fresh water sediment - Equilibrium Partitioning	0.007 mg/kg dwt
	Marine water sediment - Equilibrium Partitioning	0.001 mg/kg dwt
	Soil - Equilibrium Partitioning	0 mg/kg dwt
xylene	Fresh water	0.327 mg/l
	Marine water	0.327 mg/l
	Sewage Treatment Plant	6.58 mg/l
	Fresh water sediment	12.46 mg/kg dwt
	Marine water sediment	12.46 mg/kg dwt
	Soil	2.31 mg/kg
zinc oxide	Fresh water - Sensitivity Distribution	20.6 µg/l
	Marine water - Sensitivity Distribution	6.1 µg/l
	Fresh water sediment - Sensitivity Distribution	117 mg/kg dwt
	Sewage Treatment Plant - Assessment Factors	52 µg/l
	Marine water sediment - Assessment Factors	56.5 mg/kg dwt
	Soil - Sensitivity Distribution	35.6 mg/kg dwt
n-butyl acetate	Fresh water	0.18 mg/l
	Marine water	0.018 mg/l
	Fresh water sediment	0.981 mg/kg
	Marine water sediment	0.0981 mg/kg
	Sewage Treatment Plant	35.6 mg/l
	Soil	0.0903 mg/kg
ethylbenzene	Fresh water - Assessment Factors	0.1 mg/l
	Marine water - Assessment Factors	0.01 mg/l
	Sewage Treatment Plant - Assessment Factors	9.6 mg/l
	Fresh water sediment - Equilibrium Partitioning	13.7 mg/kg dwt
	Marine water sediment - Equilibrium Partitioning	1.37 mg/kg dwt
	Soil - Equilibrium Partitioning	2.68 mg/kg dwt
	Secondary Poisoning	20 mg/kg

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles and face shield.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

butyl rubber

SECTION 8: Exposure controls/personal protection

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Black.

Odour : Characteristic.

Odour threshold : Not available.

Melting point/freezing point :

Initial boiling point and boiling range : >37.78°C (>100°F)

Flammability (solid, gas) : liquid

Upper/lower flammability or explosive limits : Not available.

Flash point : Closed cup: 25.56°C (78°F)

Auto-ignition temperature :

Ingredient name	°C	°F	Method
butan-1-ol	355	671	EU A.15

pH : Not applicable.
Not applicable. insoluble in water.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): >21 mm^2/s

Solubility(ies) :

Media	Result
cold water	Not soluble

Solubility in water : 0.8 g/l

Miscible with water : No.

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure : 0.73 kPa (5.5 mm Hg)

SECTION 9: Physical and chemical properties

Evaporation rate : 0.57 (butyl acetate = 1)

Relative density : 2

Explosive properties : The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible.

Oxidising properties : Product does not present an oxidizing hazard.

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Dose / Exposure
dicopper oxide	Rat - Oral - LD50	500 mg/kg
	Rat - Dermal - LD50	>2000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	3.34 mg/l [4 hours]
butan-1-ol	Rabbit - Dermal - LD50	3400 mg/kg
	Toxic effects: Eye - Corneal damage Cardiac - Pulse rate Lung, Thorax, or Respiration - Dyspnea	
	Rat - Oral - LD50	790 mg/kg
	Toxic effects: Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes	
	Rat - Inhalation - LC50 Vapour	24000 mg/m³ [4 hours]
rosin	Rat - Oral - LD50	7600 mg/kg
	Rat - Dermal - LD50	>2000 mg/kg
triiron tetraoxide	Rat - Oral - LD50	>5000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>5.05 mg/l [4 hours]
xylene	Rat - Oral - LD50	4.3 g/kg
	Rabbit - Dermal - LD50	1.7 g/kg
zinc oxide	Rat - Oral - LD50	>5000 mg/kg
	Rat - Dermal - LD50	>2000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>5700 mg/m³ [4 hours]
N-ethyl-o(or p)-toluenesulphonamide	Rat - Oral - LD50	2250 mg/kg
	Toxic effects: Lung, Thorax, or Respiration - Other changes Gastrointestinal - Gastritis Blood - Hemorrhage	
copper(II) oxide	Rat - Oral - LD50	>2000 mg/kg

SECTION 11: Toxicological information

n-butyl acetate	Rabbit - Dermal - LD50	>17600 mg/kg
	Rat - Oral - LD50	10.768 g/kg
	Rat - Inhalation - LC50 Vapour	2000 ppm [4 hours]
	Rat - Inhalation - LC50 Vapour	>21.1 mg/l [4 hours]
ethylbenzene	Rat - Oral - LD50	3.5 g/kg
	Rabbit - Dermal - LD50	17.8 g/kg
	Rat - Inhalation - LC50 Vapour	17.8 mg/l [4 hours]
copper	Rat - Inhalation - LC50 Dusts and mists	>5.11 mg/l [4 hours]

Conclusion/Summary : There are no data available on the mixture itself.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
ABC 3 BLACK TYPE 223 ANTIFOULING	920.8	23039.1	N/A	134.4	7.0
dicopper oxide	500	N/A	N/A	N/A	3.34
butan-1-ol	790	3400	N/A	24	N/A
rosin	7600	N/A	N/A	N/A	N/A
xylene	4300	1700	N/A	11	N/A
N-ethyl-o(or p)-toluenesulphonamide	2250	N/A	N/A	N/A	N/A
n-butyl acetate	10768	N/A	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	N/A

Irritation/Corrosion

Product/ingredient name	Result
butan-1-ol	Rabbit - Eyes - Cornea opacity Irritation score: 4
xylene	Rabbit - Skin - Moderate irritant Amount/concentration applied: 500 mg Duration of treatment/exposure: 24 hours

Conclusion/Summary : Not available.

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitisation

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
butan-1-ol	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
xylene	Category 3	-	Respiratory tract irritation
N-ethyl-o(or p)-toluenesulphonamide	Category 3	-	Narcotic effects
n-butyl acetate	Category 3	-	Narcotic effects

SECTION 11: Toxicological information

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Product/ingredient name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

SECTION 11: Toxicological information

Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
dicopper oxide	LC50	Fish	0.003 mg/l [96 hours]
butan-1-ol	Acute - LC50	Fish	1376 mg/l [96 hours]
triiron tetraoxide	Acute - LC50	Fish	10000 mg/l [96 hours]
zinc oxide	Acute - EC50 - Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	0.481 mg/l [48 hours]
	Acute - EC50	Algae	0.17 mg/l [72 hours]
	Chronic - NOEC - Fresh water	Algae	0.017 mg/l [72 hours]
N-ethyl-o(or p)-toluenesulphonamide	LC50	Fish - *Lepomis macrochirus*	130 mg/l [96 hours]
	EC50	Daphnia - *Daphnia magna*	>1000 mg/l [48 hours]
n-butyl acetate	Acute - LC50	Fish	18 mg/l [96 hours]
ethylbenzene	Acute - EC50 - Fresh water	Daphnia	1.8 mg/l [48 hours]
	Chronic - NOEC - Fresh water	Daphnia - *Ceriodaphnia dubia*	1 mg/l
copper	Acute - LC50	Fish	810 ppb [96 hours]
	Chronic - EC10	Daphnia - Water flea - *Daphnia magna* - Neonate	8.1 µg/l [21 days]

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose / Inoculum
n-butyl acetate	TEPA and OECD 301D	83% [28 days] - Readily	
ethylbenzene	-	79% [10 days] - Readily	

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
n-butyl acetate	-	-	Readily
ethylbenzene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
butan-1-ol	1	-	Low
rosin	1.9 to 7.7	-	High
xylene	3.12	7.4 to 18.5	Low
N-ethyl-o(or p)-toluenesulphonamide	1.87	-	Low
n-butyl acetate	2.3	-	Low
ethylbenzene	3.6	79.43	Low

12.4 Mobility in soil

Soil/water partition coefficient : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
dicopper oxide	No	No	No	No	No	No	No
butan-1-ol	No	N/A	N/A	No	N/A	N/A	N/A
rosin	No	N/A	N/A	No	N/A	N/A	N/A
triiron tetraoxide	No	No	No	No	No	No	No
xylene	No	N/A	No	No	No	N/A	No
zinc oxide	No	No	No	No	No	No	No
N-ethyl-o(or p)-toluenesulphonamide	No	N/A	N/A	No	N/A	N/A	N/A
copper(II) oxide	No	No	No	No	No	No	No
n-butyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
ethylbenzene	No	N/A	No	Yes	No	N/A	No
copper	No	No	No	No	No	No	No

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste

Waste catalogue

Waste code	Waste designation
08 01 99	wastes not otherwise specified

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Type of packaging	Waste catalogue
Container	15 01 06 mixed packaging

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	Not applicable.	(dicopper oxide)	Not applicable.

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Tunnel code : (D/E)

ADN : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Explosive precursors : Not applicable.

Ozone depleting substances

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	Entry Number (REACH)
ABC 3 BLACK TYPE 223 ANTIFOULING	3

Labelling : Not applicable.

Seveso Directive

SECTION 15: Regulatory information

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c
E1

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Acute Tox. 4, H302	Calculation method
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications

SECTION 16: Other information

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

History

Date of issue/ Date of revision : 2 November 2026

Date of previous issue : 3 March 2025

Prepared by : EHS

Version : 1.02

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by us, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.