SAFETY DATA SHEET

Date of issue/Date of revision : 24 August 2025 Version : 7.02



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

1.1 Product identifier

Product name : ABC #4 BLACK
Product code : 00333517

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

Sigma Paint Saudi Arabia Ltd.

PO Box 7509 Dammam 31472 Saudi Arabia

Tel: 00966 138 47 31 00 Fax: 00966 138 47 17 34

e-mail address of person responsible for this SDS

: ndpic@sfda.gov.sa

1.4 Emergency telephone

number

: 00966 138473100 extn 1001

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [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 Regulation (EC) 1272/2008 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 :









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SECTION 2: Hazards identification

Signal word

: Danger

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

Hazardous ingredients

: dicopper oxide; rosin; Oils, pine and dipentene

Supplemental label

elements

: Not applicable.

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

articles

Special packaging requirements

Containers to be fitted

with child-resistant

: Not applicable.

fastenings

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

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SECTION 3: Composition/information on ingredients

REACH #: 01-2119513794-36 EC: 215-270-7 CAS: 1317-39-1 Index: 029-002-00-X	-		1		<u> </u>	
REACH #	Product/ingredient name	Identifiers	%	Classification	Limits, M-factors	Туре
01-2119480418-32 EC: 232-475-7 CAS: 8050-09-7 Index: 650-015-00-7 REACH #	proper oxide	01-2119513794-36 EC: 215-270-7 CAS: 1317-39-1	≥25 - ≤50	Acute Tox. 4, H332 Eye Dam. 1, H318 Aquatic Acute 1, H400	ATE [Oral] = 500 mg/ kg ATE [Inhalation (dusts and mists)] = 3.34 mg/l M [Acute] = 100	[1] [2]
O1-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7 Xylene	rosin	01-2119480418-32 EC: 232-475-7 CAS: 8050-09-7	≥10 - ≤25	Skin Sens. 1, H317	-	[1] [2]
01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 CAS: 1330-20-7 REACH #: 01-2119483493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1 CAS: 8002-09-3 REACH #: 01-2119453616-35 EC: 203-631-1 CAS: 108-94-1 CAS: 108-94-1 CAS: 108-94-1 REACH #: 01-211945370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 REACH #: 01-211945370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 CAS: 100-41-4 Index: 601-023-00-4	zinc oxide	01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2	≥10 - ≤25			[1]
01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1 Oils, pine	xylene	01-2119488216-32 EC: 215-535-7	≥10 - ≤16	Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304	mg/kg ATE [Inhalation	[1] [2]
Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 Cyclohexanone REACH #: 01-2119453616-35 EC: 203-631-1 CAS: 108-94-1 REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 Skin Irrit. 2, H315 Eye Irrit. 2, H315 Reye Irrit. 2, H316 Reye Irrit. 2, H315 Reye Irrit. 2, H316 Reye Irrit. 2, H316 Reye Irrit. 2, H316 Reye Irrit. 2, H315 Reye Irrit. 2, H316 Reye Irrit. 2, H317 Reye Irrit. 2, H316 Reye Irrit. 3, H226 Reye Irrit. 3, H226 Reye Irrit. 4, H302 Reye	n-butyl acetate	01-2119485493-29 EC: 204-658-1 CAS: 123-86-4	≥1.0 - ≤5.0	STOT SE 3, H336	-	[1] [2]
O1-2119453616-35 EC: 203-631-1 CAS: 108-94-1 REACH #: O1-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 O1-2119453616-35 EC: 203-631-1 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Plam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412 Acute Tox. 4, H302 ATE [Inhalation (vapours)] = 17.8 mg/l [1] [2]	Oils, pine	CAS: 8002-09-3	≥1.0 - ≤5.0	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Asp. Tox. 1, H304	-	[1]
01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	cyclohexanone	01-2119453616-35 EC: 203-631-1	≥1.0 - ≤3.2	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318	kg ATE [Dermal] = 1100 mg/kg ATE [Inhalation	[1] [2]
copper(II) oxide REACH #: ≤1.0 Aquatic Acute 1, H400 M [Acute] = 100 [1]	ethylbenzene	01-2119489370-35 EC: 202-849-4 CAS: 100-41-4	≥1.0 - ≤5.0	Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304		[1] [2]
	copper(II) oxide	REACH #:	≤1.0	Aquatic Acute 1, H400	M [Acute] = 100	[1]

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SECTION 3: Composition/information on ingredients

	01-2119502447-44 EC: 215-269-1 CAS: 1317-38-0 Index: 029-016-00-6		Aquatic Chronic 1, H410	M [Chronic] = 10	
4-methylpentan-2-one	REACH #: 01-2119473980-30 EC: 203-550-1 CAS: 108-10-1 Index: 606-004-00-4	<1.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336 EUH066	ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
copper	REACH #: 01-2119480154-42 EC: 231-159-6 CAS: 7440-50-8	<1.0	Aquatic Acute 1, H400 Aquatic Chronic 3, H412	M [Acute] = 1	[1]
dipentene	REACH #: 01-2120766421-57 EC: 205-341-0 CAS: 138-86-3 Index: 601-029-00-7	≤0.30	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 See Section 16 for the full text of the H statements declared above.	M [Acute] = 1 M [Chronic] = 1	[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

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SECTION 4: First aid measures

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 : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

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 metal oxide/oxides

5.3 Advice for firefighters

Special precautions 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 European standard EN 469 will provide a basic level of protection for chemical incidents.

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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. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

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.

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SECTION 7: Handling and storage

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

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).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
dícopper oxide	Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) [copper fume] TWA 8 hours: 0.2 mg/m³. Form: fumes. ACGIH TLV (United States, 1/2024) [copper fume] TWA 8 hours: 0.2 mg/m³. Form: Fume.
rosin	Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) Sensitiser, Keep exposure as low as possible. ACGIH TLV (United States, 1/2024) [resin acids] Skin sensitiser, Inhalation sensitiser. TWA 8 hours: 0.001 mg/m³ (as total Resin acids). Form: Inhalable fraction.
zinc oxide	Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) STEL 15 minutes: 10 mg/m³. Form: measured as respirable fraction of the aerosol and fume. TWA 8 hours: 2 mg/m³. Form: measured as respirable fraction of the aerosol and fume. Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006) TWA 8 hours: 5 mg/m³. Form: fumes. STEL 15 minutes: 10 mg/m³. Form: fumes. ACGIH TLV (United States, 1/2024) TWA 8 hours: 2 mg/m³. Form: Respirable fraction. STEL 15 minutes: 10 mg/m³. Form: Respirable fraction.
Talc , not containing asbestiform fibres	Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) A4. TWA 8 hours: 2 mg/m³. Form: measured as respirable fraction of the aerosol. Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006) TWA 8 hours: 2 mg/m³. ACGIH TLV (United States, 1/2024) A4. TWA 8 hours: 2 mg/m³. Form: Respirable fraction.

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SECTION 8: Exposure controls/personal protection

xylene

Abu Dhabi - OSHAD - Occupational air quality threshold limit
values (United Arab Emirates, 7/2016) [xylene (o, m & p isomers)]

A4.

STEL 15 minutes: 651 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 434 mg/m³. TWA 8 hours: 100 ppm.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006)

[xylene (all isomers)]

STEL 15 minutes: 150 ppm. TWA 8 hours: 434 mg/m³. STEL 15 minutes: 651 mg/m³. TWA 8 hours: 100 ppm.

ACGIH TLV (United States, 1/2024) [p-xylene and mixtures

containing p-xylene] A4. Ototoxicant.

TWA 8 hours: 20 ppm.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016)

STEL 15 minutes: 950 mg/m³. STEL 15 minutes: 200 ppm. TWA 8 hours: 713 mg/m³. TWA 8 hours: 150 ppm.

ACGIH TLV (United States, 1/2024) [Butyl acetates]

STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) A3. Absorbed through skin.

TWA 8 hours: 50 mg/m³. TWA 8 hours: 20 ppm.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006)

Absorbed through skin. TWA 8 hours: 100 mg/m³. TWA 8 hours: 25 ppm.

ACGIH TLV (United States, 1/2024) A3. Absorbed through skin.

TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) A3.

STEL 15 minutes: 543 mg/m³. STEL 15 minutes: 125 ppm. TWA 8 hours: 100 ppm. TWA 8 hours: 434 mg/m³.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006)

STEL 15 minutes: 125 ppm. TWA 8 hours: 434 mg/m³. STEL 15 minutes: 543 mg/m³. TWA 8 hours: 100 ppm.

ACGIH TLV (United States, 1/2024) A3. Ototoxicant.

TWA 8 hours: 20 ppm.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) [copper fume]

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TWA 8 hours: 0.2 mg/m³. Form: fumes.

ACGIH TLV (United States, 1/2024) [copper fume]

TWA 8 hours: 0.2 mg/m³. Form: Fume.

n-butyl acetate

cyclohexanone

ethylbenzene

copper(II) oxide

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copper

SECTION 8: Exposure controls/personal protection

4-methylpentan-2-one Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) A3.

TWA 8 hours: 82 mg/m³. TWA 8 hours: 20 ppm. STEL 15 minutes: 307 mg/m³. STEL 15 minutes: 75 ppm.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006)

STEL 15 minutes: 75 ppm. TWA 8 hours: 205 mg/m³. STEL 15 minutes: 307 mg/m³. TWA 8 hours: 50 ppm.

ACGIH TLV (United States, 1/2024) A3.

TWA 8 hours: 20 ppm. STEL 15 minutes: 75 ppm.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) [copper dusts and mists]

TWA 8 hours: 1 mg/m³ (as Cu). Form: dusts and mists.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016) [copper fume]

TWA 8 hours: 0.2 mg/m³. Form: fumes.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006)

TWA 8 hours: 0.2 mg/m³. Form: fumes. TWA 8 hours: 1 mg/m³. Form: dusts.

ACGIH TLV (United States, 1/2024) [copper dusts and mists]

TWA 8 hours: 1 mg/m³ (as Cu). Form: Dusts and mists. ACGIH TLV (United States, 1/2024) [copper fume]

TWA 8 hours: 0.2 mg/m³. Form: Fume.

Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard 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.

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 Skin protection : Chemical splash goggles and face shield.

Hand protection

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SECTION 8: Exposure controls/personal 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.

Gloves

butyl rubber

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 antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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

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. Not available. **Odour threshold** Melting point/freezing point : Not determined. Initial boiling point and

boiling range

: >37.78°C

Flammability

: Not determined. There are no data available on the mixture itself.

Upper/lower flammability or

explosive limits

: Not available.

: Closed cup: 27.78°C Flash point

Auto-ignition temperature :	Ingredient name	°C	°F	Method
	n-butyl acetate	415	779	EU A.15

Decomposition temperature

: Stable under recommended storage and handling conditions (see Section 7).

pН : Not applicable. insoluble in water.

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SECTION 9: Physical and chemical properties

Viscosity Dynamic (room temperature): Not available.

Kinematic (room temperature): Not available.

Kinematic (40°C): >21 mm²/s

Solubility(ies)

Media Result cold water Not soluble

Water Solubility at room

temperature

: 2.1 g/l

Partition coefficient: n-octanol/ : Not applicable.

Vapour pressure : 1 kPa (7.5 mm Hg)

Relative density : 1.79

The product itself is not explosive, but the formation of an explosible mixture of **Explosive properties**

vapour or dust with air is possible.

Oxidising properties

: Product does not present an oxidizing hazard.

Particle characteristics

: Not applicable. Median particle size

9.2 Other information

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.

No additional information.

9.2.2 Other safety characteristics

Evaporation rate : 0.62 (butyl acetate = 1)

SECTION 10: Stability and reactivity

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

: The product is stable. 10.2 Chemical stability

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 metal oxide/oxides

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly.

Harmful if swallowed.

Causes serious eye damage.

Causes skin irritation.

May cause an allergic skin reaction.

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]
rosin	Rat - Oral - LD50	7600 mg/kg
	Rat - Dermal - LD50	>2000 mg/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]
XYLENES	Rat - Oral - LD50	4.3 g/kg
	Rabbit - Dermal - LD50	1.7 g/kg
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]
PINE OIL	Rabbit - Dermal - LD50	5 g/kg
	Rat - Oral - LD50	2.1 g/kg
	Toxic effects: Lung, Thorax, or Respiration - Other	
	changes Gastrointestinal - Changes in structure or	
	function of salivary glands Blood - Hemorrhage	
cyclohexanone	Rat - Oral - LD50	1800 mg/kg
	Rabbit - Dermal - LD50	1100 mg/kg
	Rat - Inhalation - LC50 Gas.	8000 ppm [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(II) oxide	Rat - Oral - LD50	>2000 mg/kg
4-methylpentan-2-one	Rat - Oral - LD50	2.08 g/kg
	Rabbit - Dermal - LD50	>5000 mg/kg
	Rat - Inhalation - LC50 Vapour	11 mg/l [4 hours]
COPPER	Rat - Inhalation - LC50 Dusts and mists	>5.11 mg/l [4 hours]
DIPENTENE / P-MENTHA-1;8(9)-DIENE	Rat - Oral - LD50	5300 mg/kg

Acute toxicity estimates

Route	ATE value
Ø ral	1681.11 mg/kg
Dermal	13076.86 mg/kg
Inhalation (gases)	412849.12 ppm
Inhalation (vapours)	99.06 mg/l
Inhalation (dusts and mists)	11.44 mg/l

Conclusion/Summary: Farmful if swallowed.

Irritation/Corrosion

Product/ingredient name	Result
vylene	Rabbit - Skin - Moderate irritant Amount/concentration applied: 500 mg Duration of treatment/exposure: 24 hours

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SECTION 11: Toxicological information

Conclusion/Summary

Skin : Causes skin irritation.

Eyes : Zauses serious eye damage.

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

Respiratory or skin sensitization

Conclusion/Summary

Skin: May cause an allergic skin reaction.

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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
rylene n-butyl acetate cyclohexanone 4-methylpentan-2-one	Category 3 Category 3 Category 3	-	Respiratory tract irritation Narcotic effects Respiratory tract irritation Narcotic effects

Conclusion/Summary (Product) :

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

Specific target organ toxicity (repeated exposure)

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

Conclusion/Summary (Product):

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

Aspiration hazard

Product/ingredient name	Result
wylene Oils, pine ethylbenzene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Conclusion/Summary (Product): Based on available data, the classification criteria are not met.

Information on likely routes of exposure

: Not available.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion: Harmful if swallowed.

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

Eye contact : Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : No specific data.

Ingestion : Adverse symptoms may include the following:

stomach pains

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Skin contact: Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur

Eye contact: Adverse symptoms may include the following:

pain watering redness

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

Short term exposure

Potential immediate

effects

: No known significant effects or critical hazards.

Potential delayed effects

No known significant effects or critical hazards.

Long term exposure

Potential immediate

effects

: No known significant effects or critical hazards.

Potential delayed effects

: No known significant effects or critical hazards.

Potential chronic health effects

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.

Other information : Not available.

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or

death. Avoid contact with skin and clothing.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
₫ ícopper oxide	LC50	Fish	0.003 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	Algae	0.017 mg/l [72 hours]

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SECTION 12: Ecological information

	water		
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
4-methylpentan-2-one	Acute - LC50	Fish	>179 mg/l [96 hours]
copper	Acute - LC50	Fish	810 ppb [96 hours]
	Chronic - EC10	Daphnia - Water flea - Daphnia magna - Neonate	8.1 µg/l [21 days]
dipentene	LC50	Fish	0.221 mg/l [96 hours]

Conclusion/Summary : **V**ery toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
	TEPA and OECD 301D	83% [28 days] - Readily		
ethylbenzene	-	79% [10 days] - Readily		
4-methylpentan-2-one	OECD 301F	83% [28 days] - Readily		

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
x ylene	-	-	Readily
n-butyl acetate	-	-	Readily
ethylbenzene	-	-	Readily
4-methylpentan-2-one	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
sin	1.9 to 7.7	-	High
xylene	3.12	7.4 to 18.5	Low
n-butyl acetate	2.3	-	Low
cyclohexanone	0.86	-	Low
ethylbenzene	3.6	79.43	Low
4-methylpentan-2-one	1.9	-	Low
dipentene	4.57	-	High

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logKoc	Koc
n-butyl acetate	1.5	33.2139
cyclohexanone	1.8	63.2873
ethylbenzene	2.2	170.406
4-methylpentan-2-one	1.6	40.9047
dipentene	3.4	2297

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SECTION 12: Ecological information

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 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**
- Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

European waste catalogue (EWC)

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	European waste catalogue (EWC)	
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.

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SECTION 14: Transport information

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

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.

user

14.6 Special precautions for : 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 applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (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.

Annex XVII - Restrictions : Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other national and international regulations.

: Not applicable. **Explosive precursors** Ozone depleting substances (EU 2024/590)

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SECTION 15: Regulatory information

Not listed.

15.2 Chemical safety

assessment

: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and

acronyms

: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation (EC) No.

1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

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.
 H351 Suspected of causing cancer.

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.
 H411 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 [CLP/GHS]

: 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 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Asp. Tox. 1 ASPIRATION HAZARD - Category 1 Carc. 2 CARCINOGENICITY - Category 2

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
Skin Sens. 1B SKIN SENSITISATION - Category 1B

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 : 24 August 2025

revision

Date of previous issue : 9 April 2024

Prepared by : EHS

English (GB) United Arab Emirates 18/19

Code : 00333517 Date of issue/Date of revision : 24 August 2025

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SECTION 16: Other information

Version : 7.02

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