SAFETY DATA SHEET



Date of issue/Date of revision 20 December 2023 Version4

Section 1. Identification

Product code : 00333511

Product name : ABC#3 BLACK 283S5773 AF-NAVY

Other means of

identification

: Not available.

Product type : Liquid.

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

Product use : Coating.; Antifouling products

Industrial applications, Used by spraying.

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

Supplier's details : PT PPG Coatings Indonesia

Jl. Rawagelam III No.1

13930 Jakarta Indonesia

Tel +62 21 4605710 PMC.Safety@PPG.com

Emergency telephone

number

: CHEMTREC 001-803-017-9114 (CCN 17704)

Section 2. Hazards identification

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SKIN SENSITIZATION - Category 1
AQUATIC HAZARD (ACUTE) - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity:

3.9%

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation

toxicity: 15.9%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.9%

GHS label elements, including precautionary statements

Hazard pictograms :









Signal word : Danger

Indonesia Page: 1/14

Product code 00333511

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 2. Hazards identification

Hazard statements

: Mammable liquid and vapor.

Harmful if swallowed or if inhaled.

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, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use nonsparking tools. Take action to prevent static discharges. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

: Collect spillage. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage

: Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

result in classification

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

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

CAS number : Not applicable. **EC** number : Mixture.

Ingredient name	%	CAS number
dicopper oxide	25- <50	1317-39-1
zinc oxide	10- <20	1314-13-2
butan-1-ol	5- <10	71-36-3
rosin	5- <10	8050-09-7
xylene	5- <10	1330-20-7
N-ethyl-o(or p)-toluenesulphonamide	1- <3	8047-99-2
copper oxide	1- <3	1317-38-0
n-butyl acetate	1- <3	123-86-4
copper	1- <3	7440-50-8

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SUB codes represent substances without registered CAS Numbers.

Indonesia Page: 2/14

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 3. Composition/information on ingredients

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

Section 4. First aid measures

Description of necessary 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 recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label.

Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Harmful if inhaled.

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

Indication of immediate medical attention and special treatment needed, if necessary

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.

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.

See toxicological information (Section 11)

Indonesia ¹ Page: 3/14

Date of issue 20 December 2023 Version 4

Product code 00333511

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

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

Unsuitable extinguishing

media

: Do not use water jet.

Specific hazards arising from the chemical

: Flammable liquid and vapor. 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 thermal decomposition products : Decomposition products may include the following materials: carbon oxides

nitrogen oxides sulfur oxides metal oxide/oxides

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.

Section 6. Accidental release measures

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized 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".

Environmental precautions

: Avoid dispersal of spilled 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.

Methods and materials 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.

> Indonesia Page: 4/14

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 6. Accidental release measures

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach 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 noncombustible, 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 spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

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 vapor 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.

including any incompatibilities

Conditions for safe storage, : 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 oxidizing 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Indonesia Page: 5/14 Product code 00333511

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 8. Exposure controls/personal protection

### ACGIH TLV (United States, 1/2023). Copper Fume TWA: 0.2 mg/m² 8 hours. Form: Fume	Ingredient name	Exposure limits
Timés 0.2 mg/m² 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 2 mg/m² 8 hours. Form: respirable fraction and vapor STEL: 10 mg/m² 15 minutes. Form: respirable fraction and vapor Ministry of Employment and Labor (Indonesia, 2/1997). Absorbed through skin. CEIL: 152 mg/m² CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, mpisomers)] TWA: 434 mg/m² 8 hours. STEL: 551 mg/m² 15 minutes. STEL: 551 mg/m² 15 minutes. STEL: 550 mg/m² 15 minutes. STEL: 150 BDS 15 minutes. Copper oxide TWA: 0.2 mg/m² 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia, 2/1997). STEL: 651 mg/m² 15 minutes. STEL: 150 BDS 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 0.2 mg/m² 8 hours. STEL: 150 BDS 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 50 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 0.2 mg/m² 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 0.2 mg/m² 15 minutes. STEL: 200 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 500 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 0.2 mg/m² (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m² (as Cu) 8 hours. Form:	dicopper oxide	ACGIH TLV (United States, 1/2023).
zinc oxide Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 2 mg/m² 8 hours. Form: respirable fraction and vapor STEL: 10 mg/m² 15 minutes. Form: respirable fraction and vapor Ministry of Employment and Labor (Indonesia, 2/1997). Absorbed through skin. CEIL: 152 mg/m² CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. TWA: 20 BDS 8 hours. TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 400 BDS 8 hours. STEL: 650 BDS 15 minutes. STEL: 650 BDS 15 minutes. STEL: 651 mg/m² 15 minutes. STEL: 650 BDS 15 minutes. STEL: 500		
Indonesia (Indonesia, 4/2018). TWA: 2 mg/m³ 8 hours. Form: respirable fraction and vapor STEL: 10 mg/m³ 15 minutes. Form: respirable fraction and vapor STEL: 10 mg/m³ 15 minutes. Form: respirable fraction and vapor Ministry of Employment and Labor (Indonesia, 2/1997). Absorbed through skin. CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m_p-isomers]] TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 651 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. AGGIH TLY (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. STEL: 150 BDS 15 minutes. Ministry of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 0.5 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 0.5 BDS 8 hours. STEL: 50 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 0.5 BDS 8 hours. STEL: 50 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 0.2 mg/m³ 15 minutes. STEL: 500 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 0.2 mg/m³ 15 minutes. TWA: 0.2 mg/m³ 16 minutes.		
TWA: 2 mg/m³ 8 hours. Form: respirable fraction and vapor STEL: 10 mg/m³ 15 minutes. Form: respirable fraction and vapor Ministry of Employment and Labor (Indonesia, 2/1997). Absorbed through skin. CEIL: 152 mg/m³ CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. rosin Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. will skin sensitizer. Inhalation sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 50 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 20 mg/m³ 8 hours. STEL: 50 BDS 15 minutes. STEL: 200 BDS 15 minutes.	zinc oxide	Minister of Labor of the Republic of
butan-1-ol butan-1-ol butan-1-ol ministry of Employment and Labor (Indonesia, 2/1997). Absorbed through skin. CEIL: 152 mg/m³ CEIL: 50 BDS minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m.pisomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 561 mg/m³ 15 minutes. STEL: 561 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 505 BDS 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. STEL: 200 BDS 15 minutes.		
butan-1-ol STEL: 10 mg/m³ 15 minutes, Form: respirable fraction and vapor Ministry of Employment and Labor (Indonesia, 2/1997), Absorbed through skin. CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018), Absorbed through skin. Skin sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018), Absorbed through skin. Skin sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018), Ixylene (o, mp.isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 661 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLY (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 1/2018). TWA: 50 BDS 15 minutes. STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist. TWA: 2 mg/m³, (as Cu) 8 hours. Form: dust and mist. TWA: 2 mg/m³, (as Cu) 8 hours. Form:		
butan-1-ol respirable fraction and vapor Ministry of Employment and Labor (Indonesia, 2/1997). Absorbed through skin. CEIL: 152 mg/m³ CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 400 BDS 8 hours. TWA: 400 BDS 8 hours. TWA: 400 BDS 8 hours. STEL: 150 BDS 15 minutes. STEL: 15		
butan-1-ol Ministry of Employment and Labor (Indonesia, 2/1997). Absorbed through skin. CEIL: 152 mg/m³ CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 150 BDS 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 200 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 10 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
(Indonesia, 2/1997). Absorbed through skin. CEIL: 152 mg/m³ CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Copper oxide ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 10 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
skin. CEIL: 152 mg/m³ CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m² 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 0.8 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 950 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 950 mg/m³ 45 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:	butan-1-ol	
CEIL: 152 mg/m³ CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Winister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Xylene Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, mp.)-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 900 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia, 4/2018). TWA: 10 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		, , , , , , , , , , , , , , , , , , ,
CEIL: 50 BDS Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 408 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 651 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 50 BDS 15 minutes. AGGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. TWA: 50 BDS 8 hours. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 10 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
Minister of Labor of the Republic of Indonesia, 4/2018). TWA: 20 BDS 8 hours. rosin Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Winister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 400 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 201 BDS 15 minutes. TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
rosin Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. xylene Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form: dust and mist		
rosin TWA: 20 BDS 8 hours. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Xylene Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m² 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 656 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 50 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
rosin Minister of Labor of the Republic of Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 661 mg/m³ 15 minutes. STEL: 6651 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. Copper oxide Copper oxide ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
Indonesia (Indonesia, 4/2018). Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. TWA: 10 g/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:	rosin	
through skin. Skin sensitizer. Inhalation sensitizer. xylene Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper oxide ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:	10311	•
sensitizer. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Copper oxide ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. Winister of Labor of the Republic of Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. TWA: 0.2 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
xylene Minister of Labor of the Republic of Indonesia, (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Copper oxide ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia, 4/1018). TWA: TIT INGONESIA, 1/1018. TWA: O.2 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
Indonesia (Indonesia, 4/2018). [Xylene (o, m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Copper oxide ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. TWA: 0.2 mg/m³ (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:	xvlene	
m,p-isomers)] TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
TWA: 434 mg/m³ 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. STEL: 150 BDS 15 minutes. STEL: 150 BDS 15 minutes. Copper oxide Copper oxide ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
TWA: 100 BDS 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. STEL: 150 BDS 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. Winister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		TWA: 100 BDS 8 hours.
Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
(Indonesia, 2/1997). STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
STEL: 651 mg/m³ 15 minutes. STEL: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Copper Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
stel: 150 BDS 15 minutes. ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
copper oxide ACGIH TLV (United States, 1/2023). [Copper Fume] TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
Copper Fume TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes.		
TWA: 0.2 mg/m³ 8 hours. Form: Fume Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:	copper oxide	
n-butyl acetate Minister of Labor of the Republic of Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
Indonesia (Indonesia, 4/2018). TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:	n butul acatata	
TWA: 50 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:	n-butyl acetate	
STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Winister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		· · · · · · · · · · · · · · · · · · ·
Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
(Indonesia, 2/1997). STEL: 950 mg/m³ 15 minutes. STEL: 200 BDS 15 minutes. Copper Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
STEL: 200 BDS 15 minutes. Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
copper Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		STEL: 950 mg/m³ 15 minutes.
Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		STEL: 200 BDS 15 minutes.
Indonesia (Indonesia, 4/2018). TWA: 1 mg/m³, (as Cu) 8 hours. Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:	copper	Minister of Labor of the Republic of
dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		•
TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:		
vapour		
		vapour
1 1 2 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hours. Form:

Recommended monitoring procedures

: Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Indonesia Page: 6/14

Product code 00333511

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 8. Exposure controls/personal protection

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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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.

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 Hand protection

: Chemical splash goggles and face shield.

: 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.

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 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.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. Color : Black.

Odor : Characteristic.
Odor threshold : Not available.
pH : Not applicable.

Indonesia Page: 7/14

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 9. Physical and chemical properties

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 28.33°C (83°F)

Evaporation rate : 0.64 (butyl acetate = 1)

Flammability/Combustible properties (solid, gas)

: Not available.

Lower and upper explosive

(flammable) limits

: Greatest known range: Lower: 1.4% Upper: 11.3% (butan-1-ol)

Vapor pressure : 1.4 kPa (10.8 mm Hg)

Vapor density : Not available.

Relative density : 2.06

Solubility(ies) : Media Result

<mark>⊭</mark>old water Not soluble

Solubility in water : 1.4 g/l

Partition coefficient: n-

octanol/water

: Not applicable.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C): >21 mm²/s

Section 10. Stability and reactivity

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

Chemical stability : The product is stable.

Possibility of hazardous

reactions

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

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition

products.

Incompatible materials: Keep away from the following materials to prevent strong exothermic reactions:

oxidizing agents, strong alkalis, strong acids.

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

Information on toxicological effects

Acute toxicity

Indonesia [:] Page: 8/14

Date of issue 20 December 2023 Version 4

Product name ABC#3 BLACK 283S5773 AF-NAVY

Product code 00333511

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
dicopper oxide	LC50 Inhalation Dusts and mists	Rat	3.34 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	500 mg/kg	-
zinc oxide	LC50 Inhalation Dusts and mists	Rat	>5700 mg/m ³	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
rosin	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	7600 mg/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
N-ethyl-o(or p)-	LD50 Oral	Rat	2250 mg/kg	-
toluenesulphonamide				
copper oxide	LD50 Oral	Rat	>2000 mg/kg	-
n-butyl acetate	LC50 Inhalation Vapor	Rat	>21.1 mg/l	4 hours
	LC50 Inhalation Vapor	Rat	2000 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10.768 g/kg	-
copper	LC50 Inhalation Dusts and mists	Rat	>5.11 mg/l	4 hours

Conclusion/Summary Irritation/Corrosion

: There are no data available on the mixture itself.

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ylene	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	

Conclusion/Summary

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.

Sensitization

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.

Teratogenicity

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

Specific target organ toxicity (single exposure)

Indonesia ² Page: 9/14

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 11. Toxicological information

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

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Harmful if inhaled.

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 and also chronic effects from short and long term exposure

Short term exposure

Potential immediate

: There are no data available on the mixture itself.

effects

Potential delayed effects

: There are no data available on the mixture itself.

Long term exposure

Potential immediate

: There are no data available on the mixture itself.

effects

Indonesia Page: 10/14

Product code 00333511

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 11. Toxicological information

Potential delayed effects : There are no data available on the mixture itself.

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.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
	926.88 mg/kg
Dermal	21275.02 mg/kg
Inhalation (vapors)	130.3 mg/l
Inhalation (dusts and mists)	4.4 mg/l

Other information

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 vapor/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.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
dícopper oxide	LC50 0.003 mg/l	Fish	96 hours
zinc oxide	Acute EC50 0.17 mg/l	Algae	72 hours
	Acute EC50 0.481 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Chronic NOEC 0.017 mg/l Fresh water	Algae	72 hours
butan-1-ol	Acute LC50 1376 mg/l	Fish	96 hours
N-ethyl-o(or p)- toluenesulphonamide	EC50 >1000 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
'	LC50 130 mg/l	Fish - Lepomis macrochirus	96 hours
n-butyl acetate	Acute LC50 18 mg/l	Fish	96 hours
copper	Acute LC50 810 ppb	Fish	96 hours
	Chronic EC10 8.1 µg/l	Daphnia - <i>Daphnia magna</i> - Neonate	21 days

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
rdivided by the state of the s	TEPA and OECD 301D	83 % - Readily - 28 days	-	-

Indonesia Page: 11/14

Date of issue 20 December 2023 Version 4

Product code 00333511

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 12. Ecological information

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

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
<mark>b∕</mark> utan-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)-	1.87	-	Low
toluenesulphonamide			
n-butyl acetate	2.3	-	Low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and

Section 14. Transport information

	UN	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Indonesia Page: 12/14

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 14. Transport information

Marine pollutant Not applicable. (dicopper oxide) Not applicable. substances

Additional information

UN : None identified.

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

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

regulations.

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.

Transport in bulk according : Not applicable.

to IMO instruments

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

No known specific national and/or regional regulations applicable to this product (including its ingredients).

Law No. 74/2001 - Banned

None of the components are listed.

Law No. 74/2001 - Restricted

None of the components are listed.

Law No. 74/2001 -: Not determined

Chemicals that may be used

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 16. Other information

History

Date of issue/Date of

: 20 December 2023

revision

Date of previous issue : 12/29/2021

Version 4 **Prepared by** : EHS

Indonesia Page: 13/14

Product name ABC#3 BLACK 283S5773 AF-NAVY

Section 16. Other information

Key to abbreviations

: ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

RID = The Regulations concerning the International Carriage of Dangerous Goods

by Rail

UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

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 PPG, 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.

Indonesia Page: 14/14