In accordance with the Standard for Classification and Labelling of Chemical Substance and Material Safety Data Sheet, Article 10 Paragraph

# SAFETY DATA SHEET

### Intersmooth 7465HS SPC Red

### Section 1. Chemical product and company identification

#### A. Product name

: Intersmooth 7465HS SPC Red

Product code : BEA777

#### B. <u>Relevant identified uses of the substance or mixture and uses advised against</u>

Identified uses		
Professional application of coatings and inks		
Uses advised against	Reason	
All Other Uses		

C. Manufacturer	: International Paint Ltd. Stoneygate Lane Felling Gateshead Tyne and Wear NE10 0JY UK Tel: +44 (0)191 469 6111	Fax: +44 (0)191 438 3711
Emergency telephone number (with hours of operation)	: +44 (0)191 469 6111 (24H)	
e-mail address of person responsible for this SDS	: sdsfellinguk@akzonobel.com	

### Section 2. Hazards identification

Α.	Hazard classification	: FLAMMABLE LIQUIDS - Category 3
		ACUTE TOXICITY (inhalation) - Category 4
		SKIN CORROSION/IRRITATION - Category 2
		SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
		CARCINOGENICITY - Category 1A
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
		ACUTE AQUATIC HAZARD - Category 1
		LONG-TERM AQUATIC HAZARD - Category 1

B. <u>GHS label elements, including precautionary statements</u> Symbol :

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Signal word	: Danger
Hazard statements	<ul> <li>Flammable liquid and vapour. Harmful if inhaled. Causes serious eye damage. Causes skin irritation. May cause cancer. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.</li> </ul>

**Precautionary statements** 



# Section 2. Hazards identification

	Prevention		Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapour. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
	Response	:	Collect spillage. Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical 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 physician.
	Storage	:	Store locked up. Store in a well-ventilated place. Keep cool.
	Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
	upplemental label lements	:	Wear appropriate respirator when ventilation is inadequate.
C.	Other hazards which do not result in classification	:	None known.

# Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	Common name	CAS number	%	Classification
dicopper oxide	Dicopper oxide	1317-39-1	≥45 - <50	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
xylene	xylene	1330-20-7	≥15 - <20	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 STOT RE 1, H372
diiron trioxide	iron(iii)oxide	1309-37-1	≥5 - <10	Not classified.
bis(1-hydroxy-1H-pyridine- 2-thionato-O,S)copper	bis(1-hydroxy-1H- pyridine-2-thionato-O,S) copper	14915-37-8	<10	Acute Tox. 4, H302
				Acute Tox. 2, H330 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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Version 3 :

## Section 3. Composition/information on ingredients

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ethylbenzene	ethylbenzene	100-41-4	≥0.1 - <5	Flam. Liq. 2, H225 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304
butan-1-ol	butan-1-ol	71-36-3	≥1 - <5	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336
E96096	E96096	-	<10	Skin Sens. 1, H317 Aquatic Chronic 4, H413
ethanol	ethanol	64-17-5	<10	Flam. Liq. 2, H225 Carc. 1A, H350
titanium dioxide	Titanium dioxide	13463-67-7	≥0.1 - <5	Carc. 2, H351

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.

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

### Section 4. First aid measures

Α.	Eye contact	Get medical attention immediately. Call a poison center or physician. Immediately ush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
В.	Skin contact	Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Vash contaminated clothing thoroughly with water before removing it, or wear loves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
C.	Inhalation	Get medical attention immediately. Call a poison center or physician. Remove ictim to fresh air and keep at rest in a position comfortable for breathing. If it is uspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if espiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Seek medical attention. It may be dangerous to the person providing aid to give nouth-to-mouth resuscitation. If unconscious, place in recovery position and get nedical attention immediately. Maintain an open airway. Loosen tight clothing such is a collar, tie, belt or waistband. In case of inhalation of decomposition products in fire, symptoms may be delayed. The exposed person may need to be kept under nedical surveillance for 48 hours.

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# Section 4. First aid measures

mouth with water. rest in a position of exposed person is exposed person fe unless directed to be kept low so that promptly by a physical lf unconscious, pla		:	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
E.	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)

### Section 5. Firefighting measures

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Α.	Extinguishing media		
	Suitable extinguishing media	:	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	Unsuitable extinguishing media	:	Do not use water jet.
В.	Specific hazards arising from the chemical	:	Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. 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 dioxide carbon monoxide nitrogen oxides sulfur oxides carbonyl halides metal oxide/oxides
C.	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.
	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.



## Section 6. Accidental release measures

Α.	Personal precautions, : protective equipment and emergency procedures	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.
В.	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.
C.	Methods and material for c	ontainment and cleaning up
	Small spill :	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	Large spill :	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

### A. Precautions for safe handling

	Protective measures	<ul> <li>Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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.</li> </ul>
	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.
В.	Conditions for safe storage, including any incompatibilities	: 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. Vapours are heavier than air and may spread along floors. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.



## Section 8. Exposure controls/personal protection

#### A. Control parameters

#### **Occupational exposure limits**

Ingredient name	Exposure limits			
dicopper oxide	고용노동부 (Republic of Korea, 8/2016).			
	TWA: 0.1 mg/m <sup>3</sup> 8 hours. Form: Fume			
xylene	고용노동부 (Republic of Korea, 8/2016).			
	STEL: 150 ppm 15 minutes.			
	TWA: 100 ppm 8 hours.			
diiron trioxide	Ministry of Labor (Republic of Korea,			
	8/2013).			
	TWA: 5 mg/m³, (as Fe) 8 hours. Form:			
	TWA: 5 mg/m³, (as Fe) 8 hours. TWA: 10 mg/m³ 8 hours. Form: total dust			
	with less than 1% of free SiO2			
ethylbenzene	Ministry of Labor (Republic of Korea,			
entyibenzene	8/2013).			
	STEL: 545 mg/m <sup>3</sup> 15 minutes.			
	STEL: 125 ppm 15 minutes.			
	TWA: 435 mg/m <sup>3</sup> 8 hours.			
	TWA: 100 ppm 8 hours.			
butan-1-ol	Ministry of Labor (Republic of Korea,			
	8/2013). Absorbed through skin.			
	TWA: 60 mg/m <sup>3</sup> 8 hours.			
	TWA: 20 ppm 8 hours.			
ethanol	Ministry of Labor (Republic of Korea,			
	8/2013).			
	TWA: 1900 mg/m <sup>3</sup> 8 hours.			
	TWA: 1000 ppm 8 hours.			
titanium dioxide	Ministry of Labor (Republic of Korea,			
	8/2013).			
	TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total dust			
	with less than 1% of free SiO2			

В.	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.
	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.

#### C. Personal protective equipment

Respiratory protection	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary according to EN529. 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.
Eye protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166, designed to protect against liquid splashes. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.



# Section 8. Exposure controls/personal protection

Hand protection	: Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals and micro-organisms. Recommended: Viton® or Nitrile gloves. 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. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/ puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
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.
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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

# Section 9. Physical and chemical properties

Α.	<u>Appearance</u>		
	Physical state	:	Liquid.
	Colour	:	Red.
В.	Odour	:	Solvent.
C.	Odour threshold	:	Not available.
D.	рН	:	Not applicable.
Ε.	Melting/freezing point	:	Not available.
F.	Boiling point/boiling	:	Lowest known value: 136.16°C (277.1°F) (xylene).
	range		
G.	Flash point	:	Closed cup: 25°C (77°F)
	Fire point	1	Not available.
Н.	Evaporation rate	:	Not available.
I.	Flammability (solid, gas)	:	Not available.
J.	Lower and upper explosive (flammable) limits	:	Greatest known range: Lower: 0.8% Upper: 6.7% (xylene)
Κ.	Vapour pressure	:	Not available.
L.	Solubility	:	Insoluble in the following materials: cold water.
Μ.	Vapour density	:	Not available.
N.	Relative density	:	1.92
0.	Partition coefficient: n- octanol/water	:	Not available.
Ρ.	Auto-ignition temperature	:	Not available.

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# Section 9. Physical and chemical properties

Q. Decomposition temperature	: Not available.
R. Viscosity	: Kinematic (room temperature): 161 mm <sup>2</sup> /s (161 cSt)
S. Molecular weight	: Not applicable.

# Section 10. Stability and reactivity

		_	
Α.	Chemical stability	:	The product is stable.
	Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
В.	Conditions to avoid	:	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
C.	Incompatible materials	:	Reactive or incompatible with the following materials: oxidizing materials
D.	Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# Section 11. Toxicological information

: Not available.

<u>Potential acute health</u> Inhalation	: Harmful if inhaled. May give off gas, vapour or dust that is very irritating or corrosive
initiation	to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	: Irritating to mouth, throat and stomach.
Skin contact	: Causes skin irritation.
Eye contact	: Causes serious eye damage.
<u>Over-exposure signs/</u>	symptoms
Inhalation	: Adverse symptoms may include the following: headache drowsiness/fatigue dizziness/vertigo muscle weakness unconsciousness
Ingestion	: Adverse symptoms may include the following: stomach pains
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Eye contact	: Adverse symptoms may include the following: pain watering redness

#### B. <u>Health hazards</u> <u>Acute toxicity</u>

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A. Information on likely

# Section 11. Toxicological information

1		1		
Product/ingredient name	Result	Species	Dose	Exposure
dicopper oxide	LC50 Inhalation Dusts and	Rat	3.34 mg/l	4 hours
	mists			
	LD50 Oral	Rat	1340 mg/kg	-
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
bis(1-hydroxy-1H-pyridine-	LC50 Inhalation Dusts and	Rat	70 mg/m³	4 hours
2-thionato-O,S)copper	mists			
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	1075 mg/kg	-
ethylbenzene	LC50 Inhalation Gas.	Rabbit	4000 ppm	4 hours
	LD50 Dermal	Rabbit	17800 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
butan-1-ol	LC50 Inhalation Vapour	Rat	24 mg/l	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
ethanol	LC50 Inhalation Vapour	Rat	124700 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	7 g/kg	-

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
5	Eyes - Severe irritant	Rabbit	-	24 hours 5	-
				milligrams	
	Skin - Mild irritant	Rat	-	8 hours 60	-
				microliters	
	Skin - Moderate irritant	Rabbit	-	24 hours	-
				500	
				milligrams	
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500	-
				milligrams	
	Skin - Mild irritant	Rabbit	-	24 hours 15	-
				milligrams	
butan-1-ol	Eyes - Severe irritant	Rabbit	-	24 hours 2	-
				milligrams	
	Eyes - Severe irritant	Rabbit	-	0.005	-
				Mililiters	
	Skin - Moderate irritant	Rabbit	-	24 hours 20	-
				milligrams	
ethanol	Eyes - Mild irritant	Rabbit	-	24 hours	-
				500	
				milligrams	
	Eyes - Moderate irritant	Rabbit	-	0.	-
				066666667	
				minutes 100	
				milligrams	
	Eyes - Moderate irritant	Rabbit	-	100	-
				microliters	
	Eyes - Severe irritant	Rabbit	-	500	-
				milligrams	
	Skin - Mild irritant	Rabbit	-	400	-
				milligrams	
	Skin - Moderate irritant	Rabbit	-	24 hours 20	-
				milligrams	
titanium dioxide	Skin - Mild irritant	Human	-	72 hours	-
				300	
				Micrograms	
				Intermittent	

**Sensitisation** 

# Section 11. Toxicological information

#### Not available.

### CMR - ISHA Article 42 Public Notice No 2013-38 Occupational Exposure Limits

Product/ingredient name	CAS number	Classification		
Ethyl benzene	100-41-4	Carc. 2		
Ethanol	64-17-5	Carc. 1A		
Titanium dioxide	13463-67-7	Carc. 2		

### **Mutagenicity**

Not available.

### **Carcinogenicity**

Not available.

### Reproductive toxicity

Not available.

### **Teratogenicity**

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
xylene ethylbenzene	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Respiratory tract irritation
butan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	· · · J · J	Route of exposure	Target organs
xylene ethylbenzene	Category 1 Category 2		Not determined hearing organs

#### Aspiration hazard

Name	Result
ethylbenzene	ASPIRATION HAZARD - Category 1

#### Potential chronic health effects

Chronic toxicity

Not available.

General	: Causes damage to organs through prolonged or repeated exposure.
Carcinogenicity	: May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

#### ATE value



# Section 11. Toxicological information

Route	Result	
Oral	2082 mg/kg	
Dermal	6350 mg/kg	
Inhalation (gases)	29506.8 ppm	
Inhalation (vapours)	285.2 mg/l	
Inhalation (dusts and mists)	1.591 mg/l	

## Section 12. Ecological information

#### A. Ecotoxicity

Product/ingredient name	Result	Species	Exposure
dicopper oxide	Acute EC50 0.042 mg/l Fresh water	Daphnia - Daphnia similis	48 hours
	Acute IC50 0.71 mg/l Fresh water	Algae - Pseudokirchneriella	96 hours
		subcapitata - Exponential	
		growth phase	
	Acute LC50 0.075 mg/l Fresh water	Fish - Danio rerio	96 hours
	Chronic IC10 0.009 mg/l Fresh water	Algae - Pseudokirchneriella	96 hours
		subcapitata - Exponential	
xylene	Acute LC50 8500 µg/l Marine water	growth phase Crustaceans - Palaemonetes	48 hours
xylene	Acute LCOU 0000 µg/i Marine water	pugio	40 110015
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
bis(1-hydroxy-1H-pyridine-	Acute EC50 0.035 mg/l	Algae - Skeletonems Costatum	72 hours
2-thionato-O,S)copper			
	Acute EC50 0.022 mg/l	Crustaceans - Daphnia Magna	48 hours
	Acute LC50 0.0032 mg/l	Fish - Oncorhynchus mykiss	96 hours
ethylbenzene	Acute EC50 3.6 mg/I Fresh water	Algae - Pseudokirchneriella	96 hours
		subcapitata	
	Acute LC50 18.4 to 25.4 mg/l Fresh	Daphnia - Daphnia magna -	48 hours
	water	Neonate	
	Acute LC50 5.1 to 5.7 mg/l Marine	Fish - Menidia menidia	96 hours
	water		10.1
butan-1-ol	Acute EC50 1983 to 2072 mg/l Fresh	Daphnia - Daphnia magna	48 hours
	water Acute LC50 1910 mg/l Fresh water	Fish - Pimephales promelas -	96 hours
	Acute EC50 1910 mg/l Flesh water	Juvenile (Fledgling, Hatchling,	90 110015
		Weanling)	
ethanol	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia	48 hours
		franciscana - Larvae	
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine	Algae - Ulva pertusa	96 hours
	water		
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki -	12 weeks
		Larvae	

#### B. Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethylbenzene	-	-	Readily

#### C. Bioaccumulative potential

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# Section 12. Ecological information

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Product/ingredient nam	e LogP <sub>ow</sub>	BCF	Potential	
xylene	3.12	8.1 to 25.9	low	
ethylbenzene	3.6	15	low	
butan-1-ol	1	-	low	
ethanol	-0.35	-	low	
titanium dioxide	-	352	low	

K.International.

#### D. Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

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

### Section 13. Disposal considerations

Α.	Disposal methods	: 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
В.	Disposal 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.

	UN	IMDG	ΙΑΤΑ
A. UN number	UN1263	UN1263	UN1263
B. UN proper shipping name	PAINT	PAINT. Marine pollutant (dicopper oxide, bis(1-hydroxy- 1H-pyridine-2-thionato-O,S) copper)	PAINT
C. Transport hazard class(es)	3	3	3
D. Packing group			111
E. Environmental hazards	No.	Yes.	No.

### Section 14. Transport information



### Section 14. Transport information

F. Additional - information	The marine pollutant mark is not required when transported in sizes of $\leq 5$ L or $\leq 5$ kg. The environmentally hazardous substance mark may appear if required by other transportation regulations.
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IMDG Code Segregation : Not applicable. group

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.

## Section 15. Regulatory information

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Α.	Regulation according to I	SF	IA III III III III III III III III III
	ISHA article 37 (Harmful substances prohibited from manufacture)	:	None of the components are listed.
	ISHA article 38 (Harmful substances requiring permission)	:	None of the components are listed.
	Article 2 of Youth Protection Act on Substances Hazardous to Youth	:	Not applicable.
	Exposure Limits of Chem	ica	al Substances and Physical Factors
	The following components dicopper oxide Xylene diiron trioxide ethylbenzene butan-1-ol ethanol titanium dioxide	s ha	ave an OEL:
	ISHA Enforcement Regs Annex 11-3 (Exposure standards established for harmful factors)	:	None of the components are listed.
	ISHA Enforcement Regs Annex 11-4 (Harmful factors subject to Work Environment Measurement)	:	The following components are listed: Xylene, o,m,p-isomers; Ethylbenzene; n-Butyl alcohol; Iron oxide
	ISHA Enforcement Regs Annex 12-2 (Harmful Factors Subject to Special Health Check- up)	:	The following components are listed: Copper dusts, fume and mists; Xylene; Ethylbenzene; n-Butyl alcohol; Iron oxide
	Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)	:	The following components are listed: Copper and its compounds; Xylene; Ethyl benzene; n-Butyl alcohol; Iron and its compounds
В.	Regulation according to (	Ch	emicals Control Act

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# Section 15. Regulatory information

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	K-Reach Article 20 (Toxic chemicals)	:	Not applicable
	K-Reach Article 27 (Prohibited)	:	None of the components are listed.
	K-Reach Article 27 (Restricted)	:	None of the components are listed.
	CSCA Article 11 (TRI)	:	The following components are listed: Copper and its compounds; Xylene; Ethylbenzene; Copper and its compounds
	Korea inventory	:	Not determined.
	CSCA Article 39 (Accident Precaution Chemicals)	:	None of the components are listed.
C.	Dangerous Materials Safety Management Act	:	Class: Class 4 - Flammable Liquid Item: 4. Class 2 petroleums - Water-insoluble liquid Threshold: 1000 L Danger category: III Signal word: Contact with sources of ignition prohibited
D.	Wastes regulation	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Ε.	. Regulation according to other foreign laws		
	Europe inventory	:	Not determined.
	United States inventory (TSCA 8b)	:	Not determined.
	Japan inventory	:	Japan inventory (ENCS): Not determined.

Japan inventory (ISHL): Not determined.

## Section 16. Other information

Α.	References	: Not available.			
В.	Date of issue/Date of revision	: 30/08/2018			
C.	Version	: 3			
	Date of printing	: 30/08/2018			
D.	Other				
Indicates information that has changed from previously issued version.					
	Key to abbreviations	<ul> <li>ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association IBC = 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) UN = United Nations</li> </ul>			

#### Notice to reader

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IMPORTANT NOTE: the information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates.

Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

# Section 16. Other information

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

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