

SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH), Annex II
(COMMISSION REGULATION (EU) No 453/2010)

Version 1
Product Name WB Ink Green

Issue Date 30-Jun-2015
Revision date 30-Jun-2015

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

1.1. Product identifier

Product Name WB Ink Green
Product Code BFB-5007
REACH registration number No information available

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

Recommended Use Used to whiteboard marker-pen inks.
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Suzhou Xiongying Ink Technology Co., Ltd.
Address No. 539, Yunli road, Economic development zone of Wujiang City, Jiangsu Province, China
Postal Code 215217
Phone +86-512-63331385
FAX +86-512-63320778
E-mail zhangshenghong001@126.com

1.4. Emergency telephone number

+86-512-63331385

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids Category 2 - (H225)
Serious eye damage/eye irritation Category 2 - (H319)
Specific target organ toxicity (single exposure) Category 3 - (H336)

2.2. Label elements

Symbols/Pictograms



Signal word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary Statements

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P271 - Use only outdoors or in a well-ventilated area
P405 - Store locked up
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P370 + P378 - In case of fire: Use CO2, dry chemical powder, water spray to extinguish

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Mixture**

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethanol	200-578-6	64-17-5	50-60	Flam. Liq. 2 (H225)
1-methoxypropan-2-ol	203-539-1	107-98-2	10-25	STOT SE 3 (H336) Flam. Liq. 3 (H226)
Propane-1,2-dio	200-338-0	57-55-6	10-25	Not classified
Propan-2-ol	200-661-7	67-63-0	2.5-10	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)
Vinyl Butyral Polymers	-	63148-65-2	3.5-5	Not classified
C.I. Pigment Green 7	215-524-7	1328-53-6	3.5-5	Not classified
Additive	247-569-3	26266-58-0	0.5-2	Not classified

SECTION 4: First aid measures**4.1. Description of first aid measures****General advice**

In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact

Immediately wash with water and soap and rinse thoroughly.

Eye contact

Rinse eyes immediately with plenty of water for at least 15 minutes. Remove contact lenses and continue flushing. Get medical attention if irritation persists.

Ingestion

Induce vomiting, if person is conscious. Seek medical help.

4.2. Most important symptoms and effects, both acute and delayed

No information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

CO2, dry chemical powder, water spray.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.
 In case of fire, the following can be released:
 Carbon monoxide (CO), Carbon dioxide
 Other irritating and toxic gases.

5.3. Advice for firefighters

Fire-fighters should wear appropriate breathing apparatus and protective equipment. Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Refer to Section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

6.2. Environmental precautions

Do not allow material to be released into the soil, sewerage systems and surface water.
 Inform respective authorities in case of seepage into water course or sewage system.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose of the material collected according to regulations.

6.4. Reference to other sections

See Section 7 for more information
 See section 8 for more information
 See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required.
 Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Use this material with adequate ventilation.
 Keep ignition sources away - Do not smoke.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool, dry and well-ventilated place. Keep away from heat and ignition sources. Store away from incompatible materials.

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Ethanol (CAS #: 64-17-5)	1000 ppm 1880 mg/m ³	STEL 2000 ppm STEL 3800 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³	-	TWA: 1000 ppm TWA: 1900 mg/m ³	-
Propane-1,2-dio(CAS #: 57-55-6)	150 ppm 474 mg/m ³ 10 mg/m ³	-	-	-	-
Propan-2-ol (CAS #: 67-63-0)	400 ppm 983 mg/m ³ 500 ppm STEL 1230 mg/m ³ STEL	STEL 800 ppm STEL 2000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	-	TWA: 200 ppm TWA: 490 mg/m ³	-

1-methoxypropan-2-ol(CAS #: 107-98-2)	100 ppm 369 mg/m ³ 150 ppm STEL 553 mg/m ³ STEL	Skin STEL 50 ppm STEL 187 mg/m ³ TWA: 50 ppm TWA: 187 mg/m ³ Ceiling 50 ppm Ceiling 187 mg/m ³	-	TWA: 50 ppm TWA: 185 mg/m ³ Skin	S* TWA 100 ppm TWA 375 mg/m ³ STEL 150 ppm STEL 568 mg/m ³
C.I. Pigment Green 7(CAS #: 1328-53-6)	-	STEL 4 mg/m ³ STEL 0.4 mg/m ³ TWA: 1 mg/m ³ TWA: 0.1 mg/m ³	-	-	-

Chemical Name	Latvia	France	Finland	Germany	Italy
Ethanol (CAS #: 64-17-5)	TWA: 1000 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 5000 ppm STEL: 9500 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 1300 ppm STEL: 2500 mg/m ³	TWA: 500 ppm TWA: 960 mg/m ³ Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m ³ Skin	-
Propane-1,2-dio(CAS #: 57-55-6)	TWA: 7 mg/m ³	-	-	-	-
Propan-2-ol (CAS #: 67-63-0)	TWA: 350 mg/m ³ STEL: 600 mg/m ³	STEL: 400 ppm STEL: 980 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 620 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ Ceiling / Peak: 400 ppm Ceiling / Peak: 1000 mg/m ³	-
1-methoxypropan-2-ol(CAS #: 107-98-2)	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ Skin	TWA: 50 ppm TWA: 188 mg/m ³ STEL: 100 ppm STEL: 375 mg/m ³	TWA: 100 ppm TWA: 370 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³ Skin	TWA: 100 ppm TWA: 370 mg/m ³ Ceiling / Peak: 200 ppm Ceiling / Peak: 740 mg/m ³	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ Skin
C.I. Pigment Green 7(CAS #: 1328-53-6)	-	-	TWA: 1 mg/m ³	-	-

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Ethanol (CAS #: 64-17-5)	TWA: 1900 mg/m ³	TWA: 1000 ppm	STEL: 1000 ppm STEL: 1910 mg/m ³ TWA: 1000 ppm TWA: 1910 mg/m ³	STEL: 1000 ppm STEL: 1920 mg/m ³ TWA: 500 ppm TWA: 960 mg/m ³	Skin STEL: 1900 mg/m ³ TWA: 260 mg/m ³
Propan-2-ol (CAS #: 67-63-0)	STEL: 1200 mg/m ³ TWA: 900 mg/m ³	STEL: 400 ppm TWA: 200 ppm	STEL: 400 ppm STEL: 1000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	STEL: 400 ppm STEL: 1000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	-
1-methoxypropan-2-ol(CAS #: 107-98-2)	STEL: 360 mg/m ³ TWA: 180 mg/m ³	STEL: 150 ppm TWA: 100 ppm	S* STEL: 150 ppm STEL: 568 mg/m ³ TWA: 100 ppm TWA: 375 mg/m ³	STEL: 200 ppm STEL: 720 mg/m ³ TWA: 100 ppm TWA: 360 mg/m ³	Skin STEL: 563 mg/m ³ TWA: 375 mg/m ³

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol (CAS #: 64-17-5)	TWA: 500 ppm TWA: 950 mg/m ³ STEL: 500 ppm STEL: 950 mg/m ³	STEL: 3000 ppm STEL: 5760 mg/m ³ TWA: 1000 ppm TWA: 1920 mg/m ³	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Propane-1,2-dio(CAS #: 57-55-6)	TWA: 25 ppm TWA: 79 mg/m ³ STEL: 25 ppm STEL: 79 mg/m ³	-	-	-	-

Propan-2-ol (CAS #: 67-63-0)	TWA: 100 ppm TWA: 245 mg/m ³ STEL: 100 ppm STEL: 245 mg/m ³	STEL: 500 ppm STEL: 1250 mg/m ³ TWA: 400 ppm TWA: 999 mg/m ³	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
1-methoxypropan-2-ol(CAS #: 107-98-2)	TWA: 50 ppm TWA: 180 mg/m ³ Skin STEL: 50 ppm STEL: 180 mg/m ³	STEL: 150 ppm STEL: 560 mg/m ³ TWA: 100 ppm TWA: 375 mg/m ³ Skin	STEL: 100 ppm TWA: 50 ppm	(vacated) TWA: 100 ppm (vacated) TWA: 360 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 540 mg/m ³	TWA: 100 ppm TWA: 360 mg/m ³ STEL: 150 ppm STEL: 540 mg/m ³
C.I. Pigment Green 7(CAS #: 1328-53-6)	-	-	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Cu dust and mist

Derived No Effect Level (DNEL)

No information available

Predicted No Effect Concentration (PNEC)

No information available

8.2. Exposure controls

Engineering Controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Provide local exhaust or process enclosure ventilation system. The work area set safety shower and eyewash equipment.

Personal protective equipment

- Eye/face protection Tightly sealed goggles.
- Hand Protection Wear protective gloves.
- Skin and body protection Suitable protective clothing.
- Respiratory protection Use suitable respiratory protective device in case of insufficient ventilation.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Appearance Liquid
- Color Green
- Odor Slight alcohol smell
- Odor Threshold Not determined
- pH Not determined
- Melting point/freezing point -114 °C
- Boiling point / boiling range 78 °C
- Flash point Not determined
- Evaporation rate Not determined
- Flammability (solid, gas) Not determined
- Flammability Limit in Air Not determined
- Vapor Pressure Not determined
- Vapor density Not determined
- Density Not determined

Relative density	Not determined
Specific gravity	Not determined
Water solubility	Not miscible or difficult to mix.
Partition coefficient (LogPow)	Not determined
Autoignition temperature	Product is not selfigniting.
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Not determined

9.2. Other information
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage and handling conditions (see section 7, handling and storage).

10.2. Chemical stability

Stable under normal conditions of use, storage and transport.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Strong heating, fire. Incompatible materials.

10.5. Incompatible materials

Strong acids, strong bases or strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide
Other irritating and toxic gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol (CAS #: 64-17-5)	10470 mg/kg bw (rat)	-	124.7 mg/L (Rat) 4h
Propane-1,2-dio(CAS #: 57-55-6)	22000 mg/kg bw(rat)	> 2000 mg/kg bw(rabbit)	> 317042 mg/m ³ (rabbit)
Propan-2-ol (CAS #: 67-63-0)	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
1-methoxypropan-2-ol(CAS #: 107-98-2)	= 5000 mg/kg (Rat)	= 13 g/kg (Rabbit)	> 6 mg/L (Rat) 4 h
C.I. Pigment Green 7(CAS #: 1328-53-6)	> 3000 mg/kg (Rat)	-	-

Skin corrosion/irritation

Non-irritating to the skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available.

Carcinogenicity

Chemical Name	European Union	IARC
Ethanol (CAS #: 64-17-5)	-	Group 1
Propan-2-ol (CAS #: 67-63-0)	-	Group 1 Group 3

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

May cause drowsiness or dizziness.

Aspiration hazard

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Ethanol (CAS #: 64-17-5)	-	14200 mg/l/96h Pimephales promelas	5012 mg/L/48h Daphnia magna
Propane-1,2-dio(CAS #: 57-55-6)	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50	-
Propan-2-ol (CAS #: 67-63-0)	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static 1400000: 96 h Lepomis macrochirus µg/L LC50	13299: 48 h Daphnia magna mg/L EC50
1-methoxypropan-2-ol(CAS #: 107-98-2)	-	20.8: 96 h Pimephales promelas g/L LC50 static 4600 - 10000: 96 h Leuciscus idus mg/L LC50 static	23300: 48 h Daphnia magna mg/L EC50
C.I. Pigment Green 7(CAS #: 1328-53-6)	-	752.4: 96 h Lepomis macrochirus mg/L LC50 static	-

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Chemical Name	Partition coefficient (LogPow)
Ethanol (CAS #: 64-17-5)	-0.32
Propan-2-ol (CAS #: 67-63-0)	0.05
1-methoxypropan-2-ol(CAS #: 107-98-2)	-0.437

Chemical Name	Bioconcentration factor (BCF)
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Propane-1,2-dio(CAS #: 57-55-6)	<1
1-methoxypropan-2-ol(CAS #: 107-98-2)	<2
C.I. Pigment Green 7(CAS #: 1328-53-6)	0.51 - 74

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations

SECTION 14: Transport information

14.1 UN Number	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions	No information available
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Chemical Name	French RG number	Title
Ethanol (CAS #: 64-17-5)	RG 84	-
Propane-1,2-dio(CAS #: 57-55-6)	RG 84	-
Propan-2-ol (CAS #: 67-63-0)	RG 84	-
1-methoxypropan-2-ol(CAS #: 107-98-2)	RG 84	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Ethanol 64-17-5	X	X	X	X	X	X	X	X

Propane-1,2-dio 57-55-6	X	X	X	X	X	X	X	X
Propan-2-ol 67-63-0	X	X	X	X	X	X	X	X
1-methoxypropan-2- ol 107-98-2	X	X	X	X	X	X	X	X
Polyvinyl butyral 63148-65-2	X	X	-	X	X	X	X	X
C.I. Pigment Green 7 1328-53-6	X	X	X	X	X	X	X	X
Additive 26266-58-0	X	X	X	X	X	X	X	X

"-" Not Listed

"X" Listed

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Issue Date 30-Jun-2015
Revision date 30-Jun-2015
Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Full text of H-Statements referred to under section 3

H336 - May cause drowsiness or dizziness

H226 - Flammable liquid and vapor

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

----- End of Safety Data Sheet -----

SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH), Annex II
(COMMISSION REGULATION (EU) No 453/2010)

Version 1
Product Name WB Ink Red

Issue Date 30-Jun-2015
Revision date 30-Jun-2015

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

1.1. Product identifier

Product Name WB Ink Red
Product Code BFB-3254
REACH registration number No information available

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

Recommended Use Used to whiteboard marker-pen inks.
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Suzhou Xiongying Ink Technology Co., Ltd.
Address No. 539, Yunli road, Economic development zone of Wujiang City, Jiangsu Province, China
Postal Code 215217
Phone +86-512-63331385
FAX +86-512-63320778
E-mail zhangshenghong001@126.com

1.4. Emergency telephone number

+86-512-63331385

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids Category 2 - (H225)
Serious eye damage/eye irritation Category 2 - (H319)
Specific target organ toxicity (single exposure) Category 3 - (H336)

2.2. Label elements

Symbols/Pictograms



Signal word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary Statements

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P271 - Use only outdoors or in a well-ventilated area
P405 - Store locked up
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P370 + P378 - In case of fire: Use CO2, dry chemical powder, water spray to extinguish

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Mixture**

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethanol	200-578-6	64-17-5	50-60	Flam. Liq. 2 (H225)
1-methoxypropan-2-ol	203-539-1	107-98-2	10-25	STOT SE 3 (H336) Flam. Liq. 3 (H226)
Propane-1,2-dio	200-338-0	57-55-6	10-25	Not classified
Propan-2-ol	200-661-7	67-63-0	2.5-10	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)
Vinyl Butyral Polymers	-	63148-65-2	3.5-5	Not classified
C.I. pigment red 254	-	84632-65-5	3.5-5	Not classified
Additive	247-569-3	26266-58-0	0.5-2	Not classified

SECTION 4: First aid measures**4.1. Description of first aid measures****General advice**

In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact

Immediately wash with water and soap and rinse thoroughly.

Eye contact

Rinse eyes immediately with plenty of water for at least 15 minutes. Remove contact lenses and continue flushing. Get medical attention if irritation persists.

Ingestion

Induce vomiting, if person is conscious. Seek medical help.

4.2. Most important symptoms and effects, both acute and delayed

No information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media

CO2, dry chemical powder, water spray.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.
 In case of fire, the following can be released:
 Carbon monoxide (CO), Carbon dioxide
 Other irritating and toxic gases.

5.3. Advice for firefighters

Fire-fighters should wear appropriate breathing apparatus and protective equipment. Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Refer to Section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

6.2. Environmental precautions

Do not allow material to be released into the soil, sewerage systems and surface water.
 Inform respective authorities in case of seepage into water course or sewage system.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose of the material collected according to regulations.

6.4. Reference to other sections

See Section 7 for more information
 See section 8 for more information
 See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required.
 Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Use this material with adequate ventilation.
 Keep ignition sources away - Do not smoke.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool, dry and well-ventilated place. Keep away from heat and ignition sources. Store away from incompatible materials.

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Ethanol (CAS #: 64-17-5)	1000 ppm 1880 mg/m ³	STEL 2000 ppm STEL 3800 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³	-	TWA: 1000 ppm TWA: 1900 mg/m ³	-
Propane-1,2-dio(CAS #: 57-55-6)	150 ppm 474 mg/m ³ 10 mg/m ³	-	-	-	-
Propan-2-ol (CAS #: 67-63-0)	400 ppm 983 mg/m ³ 500 ppm STEL 1230 mg/m ³ STEL	STEL 800 ppm STEL 2000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	-	TWA: 200 ppm TWA: 490 mg/m ³	-

1-methoxypropan-2-ol(CAS #: 107-98-2)	100 ppm 369 mg/m ³ 150 ppm STEL 553 mg/m ³ STEL	Skin STEL 50 ppm STEL 187 mg/m ³ TWA: 50 ppm TWA: 187 mg/m ³ Ceiling 50 ppm Ceiling 187 mg/m ³	-	TWA: 50 ppm TWA: 185 mg/m ³ Skin	S* TWA 100 ppm TWA 375 mg/m ³ STEL 150 ppm STEL 568 mg/m ³
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Chemical Name	Latvia	France	Finland	Germany	Italy
Ethanol (CAS #: 64-17-5)	TWA: 1000 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 5000 ppm STEL: 9500 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 1300 ppm STEL: 2500 mg/m ³	TWA: 500 ppm TWA: 960 mg/m ³ Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m ³ Skin	-
Propane-1,2-dio(CAS #: 57-55-6)	TWA: 7 mg/m ³	-	-	-	-
Propan-2-ol (CAS #: 67-63-0)	TWA: 350 mg/m ³ STEL: 600 mg/m ³	STEL: 400 ppm STEL: 980 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 620 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ Ceiling / Peak: 400 ppm Ceiling / Peak: 1000 mg/m ³	-
1-methoxypropan-2-ol(CAS #: 107-98-2)	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ Skin	TWA: 50 ppm TWA: 188 mg/m ³ STEL: 100 ppm STEL: 375 mg/m ³	TWA: 100 ppm TWA: 370 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³ Skin	TWA: 100 ppm TWA: 370 mg/m ³ Ceiling / Peak: 200 ppm Ceiling / Peak: 740 mg/m ³	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ Skin

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Ethanol (CAS #: 64-17-5)	TWA: 1900 mg/m ³	TWA: 1000 ppm	STEL: 1000 ppm STEL: 1910 mg/m ³ TWA: 1000 ppm TWA: 1910 mg/m ³	STEL: 1000 ppm STEL: 1920 mg/m ³ TWA: 500 ppm TWA: 960 mg/m ³	Skin STEL: 1900 mg/m ³ TWA: 260 mg/m ³
Propan-2-ol (CAS #: 67-63-0)	STEL: 1200 mg/m ³ TWA: 900 mg/m ³	STEL: 400 ppm TWA: 200 ppm	STEL: 400 ppm STEL: 1000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	STEL: 400 ppm STEL: 1000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	-
1-methoxypropan-2-ol(CAS #: 107-98-2)	STEL: 360 mg/m ³ TWA: 180 mg/m ³	STEL: 150 ppm TWA: 100 ppm	S* STEL: 150 ppm STEL: 568 mg/m ³ TWA: 100 ppm TWA: 375 mg/m ³	STEL: 200 ppm STEL: 720 mg/m ³ TWA: 100 ppm TWA: 360 mg/m ³	Skin STEL: 563 mg/m ³ TWA: 375 mg/m ³

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol (CAS #: 64-17-5)	TWA: 500 ppm TWA: 950 mg/m ³ STEL: 500 ppm STEL: 950 mg/m ³	STEL: 3000 ppm STEL: 5760 mg/m ³ TWA: 1000 ppm TWA: 1920 mg/m ³	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Propane-1,2-dio(CAS #: 57-55-6)	TWA: 25 ppm TWA: 79 mg/m ³ STEL: 25 ppm STEL: 79 mg/m ³	-	-	-	-

Propan-2-ol (CAS #: 67-63-0)	TWA: 100 ppm TWA: 245 mg/m ³ STEL: 100 ppm STEL: 245 mg/m ³	STEL: 500 ppm STEL: 1250 mg/m ³ TWA: 400 ppm TWA: 999 mg/m ³	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
1-methoxypropan-2-ol(CAS #: 107-98-2)	TWA: 50 ppm TWA: 180 mg/m ³ Skin STEL: 50 ppm STEL: 180 mg/m ³	STEL: 150 ppm STEL: 560 mg/m ³ TWA: 100 ppm TWA: 375 mg/m ³ Skin	STEL: 100 ppm TWA: 50 ppm	(vacated) TWA: 100 ppm (vacated) TWA: 360 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 540 mg/m ³	TWA: 100 ppm TWA: 360 mg/m ³ STEL: 150 ppm STEL: 540 mg/m ³

Derived No Effect Level (DNEL)

No information available

Predicted No Effect Concentration (PNEC)

No information available

8.2. Exposure controls

Engineering Controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Provide local exhaust or process enclosure ventilation system. The work area set safety shower and eyewash equipment.

Personal protective equipment

Eye/face protection	Tightly sealed goggles.
Hand Protection	Wear protective gloves.
Skin and body protection	Suitable protective clothing.
Respiratory protection	Use suitable respiratory protective device in case of insufficient ventilation.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Color	Red
Odor	Slight alcohol smell
Odor Threshold	Not determined
pH	Not determined
Melting point/freezing point	-114 °C
Boiling point / boiling range	78 °C
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Flammability Limit in Air	Not determined
Vapor Pressure	Not determined
Vapor density	Not determined
Density	Not determined
Relative density	Not determined
Specific gravity	Not determined
Water solubility	Not miscible or difficult to mix.
Partition coefficient (LogPow)	Not determined

Autoignition temperature	Product is not selfigniting.
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Not determined

9.2. Other information
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage and handling conditions (see section 7, handling and storage).

10.2. Chemical stability

Stable under normal conditions of use, storage and transport.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Strong heating, fire. Incompatible materials.

10.5. Incompatible materials

Strong acids, strong bases or strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide
Other irritating and toxic gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol (CAS #: 64-17-5)	10470 mg/kg bw (rat)	-	124.7 mg/L (Rat) 4h
Propane-1,2-dio(CAS #: 57-55-6)	22000 mg/kg bw(rat)	> 2000 mg/kg bw(rabbit)	> 317042 mg/m ³ (rabbit)
Propan-2-ol (CAS #: 67-63-0)	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
1-methoxypropan-2-ol(CAS #: 107-98-2)	= 5000 mg/kg (Rat)	= 13 g/kg (Rabbit)	> 6 mg/L (Rat) 4 h

Skin corrosion/irritation

Non-irritating to the skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available.

Carcinogenicity

Chemical Name	European Union	IARC

Ethanol (CAS #: 64-17-5)	-	Group 1
Propan-2-ol (CAS #: 67-63-0)	-	Group 1 Group 3

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

May cause drowsiness or dizziness.

Aspiration hazard

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Ethanol (CAS #: 64-17-5)	-	14200 mg/l/96h Pimephales promelas	5012 mg/L/48h Daphnia magna
Propane-1,2-dio(CAS #: 57-55-6)	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50	-
Propan-2-ol (CAS #: 67-63-0)	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static 1400000: 96 h Lepomis macrochirus µg/L LC50	13299: 48 h Daphnia magna mg/L EC50
1-methoxypropan-2-ol(CAS #: 107-98-2)	-	20.8: 96 h Pimephales promelas g/L LC50 static 4600 - 10000: 96 h Leuciscus idus mg/L LC50 static	23300: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Chemical Name	Partition coefficient (LogPow)
Ethanol (CAS #: 64-17-5)	-0.32
Propan-2-ol (CAS #: 67-63-0)	0.05
1-methoxypropan-2-ol(CAS #: 107-98-2)	-0.437

Chemical Name	Bioconcentration factor (BCF)
Propane-1,2-dio(CAS #: 57-55-6)	<1
1-methoxypropan-2-ol(CAS #: 107-98-2)	<2

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations

SECTION 14: Transport information

14.1 UN Number Not regulated

14.2 Proper shipping name Not regulated

14.3 Hazard Class Not regulated

14.4 Packing Group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions No information available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Chemical Name	French RG number	Title
Ethanol (CAS #: 64-17-5)	RG 84	-
Propane-1,2-dio(CAS #: 57-55-6)	RG 84	-
Propan-2-ol (CAS #: 67-63-0)	RG 84	-
1-methoxypropan-2-ol(CAS #: 107-98-2)	RG 84	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Ethanol 64-17-5	X	X	X	X	X	X	X	X
Propane-1,2-dio 57-55-6	X	X	X	X	X	X	X	X
Propan-2-ol 67-63-0	X	X	X	X	X	X	X	X
1-methoxypropan-2- ol 107-98-2	X	X	X	X	X	X	X	X
Polyvinyl butyral 63148-65-2	X	X	-	X	X	X	X	X

C.I. pigment red 254 84632-65-5	X	X	X	X	X	X	X	X
Additive 26266-58-0	X	X	X	X	X	X	X	X

"-" Not Listed

"X" Listed

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Issue Date 30-Jun-2015
Revision date 30-Jun-2015
Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Full text of H-Statements referred to under section 3

H336 - May cause drowsiness or dizziness

H226 - Flammable liquid and vapor

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

----- End of Safety Data Sheet -----

SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH), Annex II
(COMMISSION REGULATION (EU) No 453/2010)

Version 1
Product Name WB Ink Black

Issue Date 30-Jun-2015
Revision date 30-Jun-2015

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

1.1. Product identifier

Product Name WB Ink Black
Product Code BFB-8045
REACH registration number No information available

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

Recommended Use Used to whiteboard marker-pen inks.
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Suzhou Xiongying Ink Technology Co., Ltd.
Address No. 539, Yunli road, Economic development zone of Wujiang City, Jiangsu Province, China
Postal Code 215217
Phone +86-512-63331385
FAX +86-512-63320778
E-mail zhangshenghong001@126.com

1.4. Emergency telephone number

+86-512-63331385

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids Category 2 - (H225)
Serious eye damage/eye irritation Category 2 - (H319)
Specific target organ toxicity (single exposure) Category 3 - (H336)

2.2. Label elements

Symbols/Pictograms



Signal word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary Statements

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P271 - Use only outdoors or in a well-ventilated area
P405 - Store locked up
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P370 + P378 - In case of fire: Use CO2, dry chemical powder, water spray to extinguish

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Mixture**

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethanol	200-578-6	64-17-5	50-60	Flam. Liq. 2 (H225)
1-methoxypropan-2-ol	203-539-1	107-98-2	10-25	STOT SE 3 (H336) Flam. Liq. 3 (H226)
Propane-1,2-dio	200-338-0	57-55-6	10-25	Not classified
Propan-2-ol	200-661-7	67-63-0	2.5-10	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)
Vinyl Butyral Polymers	-	63148-65-2	3.5-5	Not classified
Carbon black	-	1333-86-4	3.5-5	Not classified
Additive	247-569-3	26266-58-0	0.5-2	Not classified

SECTION 4: First aid measures**4.1. Description of first aid measures****General advice**

In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation

Not expected to become a significant inhalation hazard under normal conditions of use. If inhaled dusts, remove to fresh air.

Skin Contact

Immediately wash with water and soap and rinse thoroughly.

Eye contact

Rinse eyes immediately with plenty of water for at least 15 minutes. Remove contact lenses and continue flushing. Get medical attention if irritation persists.

Ingestion

Induce vomiting, if person is conscious. Seek medical help.

4.2. Most important symptoms and effects, both acute and delayed

No information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media

CO2, dry chemical powder, water spray.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.
 In case of fire, the following can be released:
 Carbon monoxide (CO), Carbon dioxide
 Other irritating and toxic gases.

5.3. Advice for firefighters

Fire-fighters should wear appropriate breathing apparatus and protective equipment. Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Refer to Section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

6.2. Environmental precautions

Do not allow material to be released into the soil, sewerage systems and surface water.
 Inform respective authorities in case of seepage into water course or sewage system.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose of the material collected according to regulations.

6.4. Reference to other sections

See Section 7 for more information
 See section 8 for more information
 See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required.
 Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Use this material with adequate ventilation.
 Keep ignition sources away - Do not smoke.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool, dry and well-ventilated place. Keep away from heat and ignition sources. Store away from incompatible materials.

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Ethanol (CAS #: 64-17-5)	1000 ppm 1880 mg/m ³	STEL 2000 ppm STEL 3800 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³	-	TWA: 1000 ppm TWA: 1900 mg/m ³	-
Propane-1,2-dio(CAS #: 57-55-6)	150 ppm 474 mg/m ³ 10 mg/m ³	-	-	-	-
Propan-2-ol (CAS #: 67-63-0)	400 ppm 983 mg/m ³ 500 ppm STEL 1230 mg/m ³ STEL	STEL 800 ppm STEL 2000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	-	TWA: 200 ppm TWA: 490 mg/m ³	-

1-methoxypropan-2-ol(CAS #: 107-98-2)	100 ppm 369 mg/m ³ 150 ppm STEL 553 mg/m ³ STEL	Skin STEL 50 ppm STEL 187 mg/m ³ TWA: 50 ppm TWA: 187 mg/m ³ Ceiling 50 ppm Ceiling 187 mg/m ³	-	TWA: 50 ppm TWA: 185 mg/m ³ Skin	S* TWA 100 ppm TWA 375 mg/m ³ STEL 150 ppm STEL 568 mg/m ³
Carbon black (CAS #: 1333-86-4)	3 mg/m ³	-	-	TWA: 3.5 mg/m ³	-

Chemical Name	Latvia	France	Finland	Germany	Italy
Ethanol (CAS #: 64-17-5)	TWA: 1000 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 5000 ppm STEL: 9500 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 1300 ppm STEL: 2500 mg/m ³	TWA: 500 ppm TWA: 960 mg/m ³ Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m ³ Skin	-
Propane-1,2-dio(CAS #: 57-55-6)	TWA: 7 mg/m ³	-	-	-	-
Propan-2-ol (CAS #: 67-63-0)	TWA: 350 mg/m ³ STEL: 600 mg/m ³	STEL: 400 ppm STEL: 980 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 620 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ Ceiling / Peak: 400 ppm Ceiling / Peak: 1000 mg/m ³	-
1-methoxypropan-2-ol(CAS #: 107-98-2)	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ Skin	TWA: 50 ppm TWA: 188 mg/m ³ STEL: 100 ppm STEL: 375 mg/m ³	TWA: 100 ppm TWA: 370 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³ Skin	TWA: 100 ppm TWA: 370 mg/m ³ Ceiling / Peak: 200 ppm Ceiling / Peak: 740 mg/m ³	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ Skin
Carbon black (CAS #: 1333-86-4)		TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	Skin	-

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Ethanol (CAS #: 64-17-5)	TWA: 1900 mg/m ³	TWA: 1000 ppm	STEL: 1000 ppm STEL: 1910 mg/m ³ TWA: 1000 ppm TWA: 1910 mg/m ³	STEL: 1000 ppm STEL: 1920 mg/m ³ TWA: 500 ppm TWA: 960 mg/m ³	Skin STEL: 1900 mg/m ³ TWA: 260 mg/m ³
Propan-2-ol (CAS #: 67-63-0)	STEL: 1200 mg/m ³ TWA: 900 mg/m ³	STEL: 400 ppm TWA: 200 ppm	STEL: 400 ppm STEL: 1000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	STEL: 400 ppm STEL: 1000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	-
1-methoxypropan-2-ol(CAS #: 107-98-2)	STEL: 360 mg/m ³ TWA: 180 mg/m ³	STEL: 150 ppm TWA: 100 ppm	S* STEL: 150 ppm STEL: 568 mg/m ³ TWA: 100 ppm TWA: 375 mg/m ³	STEL: 200 ppm STEL: 720 mg/m ³ TWA: 100 ppm TWA: 360 mg/m ³	Skin STEL: 563 mg/m ³ TWA: 375 mg/m ³

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol (CAS #: 64-17-5)	TWA: 500 ppm TWA: 950 mg/m ³ STEL: 500 ppm STEL: 950 mg/m ³	STEL: 3000 ppm STEL: 5760 mg/m ³ TWA: 1000 ppm TWA: 1920 mg/m ³	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Propane-1,2-dio(CAS #: 57-55-6)	TWA: 25 ppm TWA: 79 mg/m ³ STEL: 25 ppm STEL: 79 mg/m ³	-	-	-	-

Vapor density	Not determined
Density	Not determined
Relative density	Not determined
Specific gravity	Not determined
Water solubility	Not miscible or difficult to mix.
Partition coefficient (LogPow)	Not determined
Autoignition temperature	Product is not selfigniting.
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Not determined

9.2. Other information

No information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

Stable under recommended storage and handling conditions (see section 7, handling and storage).

10.2. Chemical stability

Stable under normal conditions of use, storage and transport.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Strong heating, fire. Incompatible materials.

10.5. Incompatible materials

Strong acids, strong bases or strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide

Other irritating and toxic gases.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol (CAS #: 64-17-5)	10470 mg/kg bw (rat)	-	124.7 mg/L (Rat) 4h
Propane-1,2-dio(CAS #: 57-55-6)	22000 mg/kg bw(rat)	> 2000 mg/kg bw(rabbit)	> 317042 mg/m ³ (rabbit)
Propan-2-ol (CAS #: 67-63-0)	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
1-methoxypropan-2-ol(CAS #: 107-98-2)	= 5000 mg/kg (Rat)	= 13 g/kg (Rabbit)	> 6 mg/L (Rat) 4 h
Carbon black (CAS #: 1333-86-4)	> 8000 mg/kg (rat)	> 3000 mg/kg (Rabbit)	-

Skin corrosion/irritation

Non-irritating to the skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available.

Carcinogenicity

Chemical Name	European Union	IARC
Ethanol (CAS #: 64-17-5)	-	Group 1
Propan-2-ol (CAS #: 67-63-0)	-	Group 1 Group 3
Carbon black (CAS #: 1333-86-4)	-	Group 2B

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

May cause drowsiness or dizziness.

Aspiration hazard

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Ethanol (CAS #: 64-17-5)	-	14200 mg/l/96h Pimephales promelas	5012 mg/L/48h Daphnia magna
Propane-1,2-dio(CAS #: 57-55-6)	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50	-
Propan-2-ol (CAS #: 67-63-0)	1000: 96 h Desmodemus subspicatus mg/L EC50 1000: 72 h Desmodemus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static 140000: 96 h Lepomis macrochirus µg/L LC50	13299: 48 h Daphnia magna mg/L EC50
1-methoxypropan-2-ol(CAS #: 107-98-2)	-	20.8: 96 h Pimephales promelas g/L LC50 static 4600 - 10000: 96 h Leuciscus idus mg/L LC50 static	23300: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Chemical Name	Partition coefficient (LogPow)
Ethanol (CAS #: 64-17-5)	-0.32
Propan-2-ol (CAS #: 67-63-0)	0.05
1-methoxypropan-2-ol(CAS #: 107-98-2)	-0.437

Chemical Name	Bioconcentration factor (BCF)
Propane-1,2-dio(CAS #: 57-55-6)	<1
1-methoxypropan-2-ol(CAS #: 107-98-2)	<2

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations

SECTION 14: Transport information

14.1 UN Number	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions	No information available
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Chemical Name	French RG number	Title
Ethanol (CAS #: 64-17-5)	RG 84	-
Propane-1,2-dio(CAS #: 57-55-6)	RG 84	-
Propan-2-ol (CAS #: 67-63-0)	RG 84	-
1-methoxypropan-2-ol(CAS #: 107-98-2)	RG 84	-
Carbon black (CAS #: 1333-86-4)	RG 16, RG 16bis	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Ethanol 64-17-5	X	X	X	X	X	X	X	X

Propane-1,2-dio 57-55-6	X	X	X	X	X	X	X	X
Propan-2-ol 67-63-0	X	X	X	X	X	X	X	X
1-methoxypropan-2- ol 107-98-2	X	X	X	X	X	X	X	X
Polyvinyl butyral 63148-65-2	X	X	-	X	X	X	X	X
Carbon black 1333-86-4	X	X	X	X	X	X	X	X
Additive 26266-58-0	X	X	X	X	X	X	X	X

"-" Not Listed

"X" Listed

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Issue Date 30-Jun-2015
Revision date 30-Jun-2015
Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Full text of H-Statements referred to under section 3

H336 - May cause drowsiness or dizziness

H226 - Flammable liquid and vapor

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

----- End of Safety Data Sheet -----

SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH), Annex II
(COMMISSION REGULATION (EU) No 453/2010)

Version 1
Product Name WB Ink Blue

Issue Date 30-Jun-2015
Revision date 30-Jun-2015

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

1.1. Product identifier

Product Name WB Ink Blue
Product Code BFB-4156
REACH registration number No registration number is given yet for this product.

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

Recommended Use Used to whiteboard marker-pen inks.
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Suzhou Xiongying Ink Technology Co., Ltd.
Address No. 539, Yunli road, Economic development zone of Wujiang City, Jiangsu Province, China
Postal Code 215217
Phone +86-512-63331385
FAX +86-512-63320778
E-mail zhangshenghong001@126.com

1.4. Emergency telephone number

+86-512-63331385

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids Category 2 - (H225)
Serious eye damage/eye irritation Category 2 - (H319)
Specific target organ toxicity (single exposure) Category 3 - (H336)

2.2. Label elements

Symbols/Pictograms



Signal word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary Statements

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P271 - Use only outdoors or in a well-ventilated area
P405 - Store locked up
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P370 + P378 - In case of fire: Use CO2, dry chemical powder, water spray to extinguish

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Mixture**

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethanol	200-578-6	64-17-5	50-60	Flam. Liq. 2 (H225)
1-methoxypropan-2-ol	203-539-1	107-98-2	10-25	STOT SE 3 (H336) Flam. Liq. 3 (H226)
Propane-1,2-dio	200-338-0	57-55-6	10-25	Not classified
Propan-2-ol	200-661-7	67-63-0	2.5-10	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)
Vinyl Butyral Polymers	-	63148-65-2	3.5-5	Not classified
C.I. Pigment Blue 60	205-685-1	147-14-8	1.5-5	Not classified
6,15-dihydroanthrazine-	201-375-5	81-77-6	1.5-5	Not classified

SECTION 4: First aid measures**4.1. Description of first aid measures****General advice**

In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation

IF INHALED: Not expected to become a significant inhalation hazard under normal conditions of use. If inhaled dusts, remove to fresh air.

Skin Contact

Immediately wash with water and soap and rinse thoroughly.

Eye contact

Rinse eyes immediately with plenty of water for at least 15 minutes. Remove contact lenses and continue flushing. Get medical attention if irritation persists.

Ingestion

Induce vomiting, if person is conscious. Seek medical help.

4.2. Most important symptoms and effects, both acute and delayed

No information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media

CO2, dry chemical powder, water spray.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.
 In case of fire, the following can be released:
 Carbon monoxide (CO), Carbon dioxide
 Other irritating and toxic gases.

5.3. Advice for firefighters

Fire-fighters should wear appropriate breathing apparatus and protective equipment. Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Refer to Section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

6.2. Environmental precautions

Do not allow material to be released into the soil, sewerage systems and surface water. Inform respective authorities in case of seepage into water course or sewage system.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of the material collected according to regulations.

6.4. Reference to other sections

See Section 7 for more information
 See section 8 for more information
 See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required.

Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Use this material with adequate ventilation.

Keep ignition sources away - Do not smoke.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool, dry and well-ventilated place. Keep away from heat and ignition sources. Store away from incompatible materials.

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Ethanol (CAS #: 64-17-5)	1000 ppm 1880 mg/m ³	STEL 2000 ppm STEL 3800 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³	-	TWA: 1000 ppm TWA: 1900 mg/m ³	-
Propane-1,2-dio (CAS #: 57-55-6)	150 ppm 474 mg/m ³ 10 mg/m ³	-	-	-	-
Propan-2-ol (CAS #: 67-63-0)	400 ppm 983 mg/m ³ 500 ppm STEL 1230 mg/m ³ STEL	STEL 800 ppm STEL 2000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	-	TWA: 200 ppm TWA: 490 mg/m ³	-

1-methoxypropan-2-ol (CAS #: 107-98-2)	100 ppm 369 mg/m ³ 150 ppm STEL 553 mg/m ³ STEL	Skin STEL 50 ppm STEL 187 mg/m ³ TWA: 50 ppm TWA: 187 mg/m ³ Ceiling 50 ppm Ceiling 187 mg/m ³	-	TWA: 50 ppm TWA: 185 mg/m ³ Skin	S* TWA 100 ppm TWA 375 mg/m ³ STEL 150 ppm STEL 568 mg/m ³
C.I. Pigment Blue 60 (CAS #: 147-14-8)	-	STEL 4 mg/m ³ STEL 0.4 mg/m ³ TWA: 1 mg/m ³ TWA: 0.1 mg/m ³	-	-	-

Chemical Name	Latvia	France	Finland	Germany	Italy
Ethanol (CAS #: 64-17-5)	TWA: 1000 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 5000 ppm STEL: 9500 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 1300 ppm STEL: 2500 mg/m ³	TWA: 500 ppm TWA: 960 mg/m ³ Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m ³ Skin	-
Propane-1,2-dio (CAS #: 57-55-6)	TWA: 7 mg/m ³	-	-	-	-
Propan-2-ol (CAS #: 67-63-0)	TWA: 350 mg/m ³ STEL: 600 mg/m ³	STEL: 400 ppm STEL: 980 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 620 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ Ceiling / Peak: 400 ppm Ceiling / Peak: 1000 mg/m ³	-
1-methoxypropan-2-ol (CAS #: 107-98-2)	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ Skin	TWA: 50 ppm TWA: 188 mg/m ³ STEL: 100 ppm STEL: 375 mg/m ³	TWA: 100 ppm TWA: 370 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³ Skin	TWA: 100 ppm TWA: 370 mg/m ³ Ceiling / Peak: 200 ppm Ceiling / Peak: 740 mg/m ³	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³ Skin
C.I. Pigment Blue 60 (CAS #: 147-14-8)	TWA: 5 mg/m ³	-	TWA: 1 mg/m ³	-	-

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Ethanol (CAS #: 64-17-5)	TWA: 1900 mg/m ³	TWA: 1000 ppm	STEL: 1000 ppm STEL: 1910 mg/m ³ TWA: 1000 ppm TWA: 1910 mg/m ³	STEL: 1000 ppm STEL: 1920 mg/m ³ TWA: 500 ppm TWA: 960 mg/m ³	Skin STEL: 1900 mg/m ³ TWA: 260 mg/m ³
Propan-2-ol (CAS #: 67-63-0)	STEL: 1200 mg/m ³ TWA: 900 mg/m ³	STEL: 400 ppm TWA: 200 ppm	STEL: 400 ppm STEL: 1000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	STEL: 400 ppm STEL: 1000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	-
1-methoxypropan-2-ol (CAS #: 107-98-2)	STEL: 360 mg/m ³ TWA: 180 mg/m ³	STEL: 150 ppm TWA: 100 ppm	S* STEL: 150 ppm STEL: 568 mg/m ³ TWA: 100 ppm TWA: 375 mg/m ³	STEL: 200 ppm STEL: 720 mg/m ³ TWA: 100 ppm TWA: 360 mg/m ³	Skin STEL: 563 mg/m ³ TWA: 375 mg/m ³

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol (CAS #: 64-17-5)	TWA: 500 ppm TWA: 950 mg/m ³ STEL: 500 ppm STEL: 950 mg/m ³	STEL: 3000 ppm STEL: 5760 mg/m ³ TWA: 1000 ppm TWA: 1920 mg/m ³	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Propane-1,2-dio (CAS #: 57-55-6)	TWA: 25 ppm TWA: 79 mg/m ³ STEL: 25 ppm STEL: 79 mg/m ³	-	-	-	-

Propan-2-ol (CAS #: 67-63-0)	TWA: 100 ppm TWA: 245 mg/m ³ STEL: 100 ppm STEL: 245 mg/m ³	STEL: 500 ppm STEL: 1250 mg/m ³ TWA: 400 ppm TWA: 999 mg/m ³	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
1-methoxypropan-2-ol (CAS #: 107-98-2)	TWA: 50 ppm TWA: 180 mg/m ³ Skin STEL: 50 ppm STEL: 180 mg/m ³	STEL: 150 ppm STEL: 560 mg/m ³ TWA: 100 ppm TWA: 375 mg/m ³ Skin	STEL: 100 ppm TWA: 50 ppm	(vacated) TWA: 100 ppm (vacated) TWA: 360 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 540 mg/m ³	TWA: 100 ppm TWA: 360 mg/m ³ STEL: 150 ppm STEL: 540 mg/m ³
C.I. Pigment Blue 60 (CAS #: 147-14-8)	-	-	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Cu dust and mist

Derived No Effect Level (DNEL)

No information available

Predicted No Effect Concentration (PNEC)

No information available

8.2. Exposure controls

Engineering Controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Provide local exhaust or process enclosure ventilation system. The work area set safety shower and eyewash equipment.

Personal protective equipment

Eye/face protection	Tightly sealed goggles.
Hand Protection	Wear protective gloves.
Skin and body protection	Suitable protective clothing.
Respiratory protection	Use suitable respiratory protective device in case of insufficient ventilation.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Color	Blue
Odor	Slight alcohol smell
Odor Threshold	Not determined
pH	Not determined
Melting point/freezing point	-114 °C
Boiling point / boiling range	78 °C
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Flammability Limit in Air	Not determined
Vapor Pressure	Not determined
Vapor density	Not determined
Density	Not determined

Relative density	Not determined
Specific gravity	Not determined
Water solubility	Not miscible or difficult to mix.
Partition coefficient (LogPow)	Not determined
Autoignition temperature	Product is not selfigniting.
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Not determined

9.2. Other information

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage and handling conditions (see section 7, handling and storage).

10.2. Chemical stability

Stable under normal conditions of use, storage and transport.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Strong heating, fire. Incompatible materials.

10.5. Incompatible materials

Strong acids, strong bases or strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide
Other irritating and toxic gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol (CAS #: 64-17-5)	10470 mg/kg bw (rat)	-	124.7 mg/L (Rat) 4h
Propane-1,2-dio (CAS #: 57-55-6)	22000 mg/kg bw(rat)	> 2000 mg/kg bw(rabbit)	> 317042 mg/m ³ (rabbit)
Propan-2-ol (CAS #: 67-63-0)	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
1-methoxypropan-2-ol (CAS #: 107-98-2)	= 5000 mg/kg (Rat)	= 13 g/kg (Rabbit)	> 6 mg/L (Rat) 4 h
6,15-dihydroanthrazine-(CAS #: 81-77-6)	= 2 g/kg (Rat)	-	-
C.I. Pigment Blue 60 (CAS #: 147-14-8)	-	> 5000 mg/kg bw (rat)	-

Skin corrosion/irritation

Non-irritating to the skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available.

Carcinogenicity

Chemical Name	European Union	IARC
Ethanol (CAS #: 64-17-5)	-	Group 1
Propan-2-ol (CAS #: 67-63-0)	-	Group 1 Group 3

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

May cause drowsiness or dizziness.

Aspiration hazard

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Ethanol (CAS #: 64-17-5)	-	14200 mg/l/96h Pimephales promelas	5012 mg/L/48h Daphnia magna
Propane-1,2-dio (CAS #: 57-55-6)	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50	-
Propan-2-ol (CAS #: 67-63-0)	1000: 96 h Desmodemus subspicatus mg/L EC50 1000: 72 h Desmodemus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static 1400000: 96 h Lepomis macrochirus µg/L LC50	13299: 48 h Daphnia magna mg/L EC50
1-methoxypropan-2-ol (CAS #: 107-98-2)	-	20.8: 96 h Pimephales promelas g/L LC50 static 4600 - 10000: 96 h Leuciscus idus mg/L LC50 static	23300: 48 h Daphnia magna mg/L EC50
C.I. Pigment Blue 60 (CAS #: 147-14-8)	> 100 mg/L/72h	> 100 mg/L/96h	> 100 mg/L/48h

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Chemical Name	Partition coefficient (LogPow)
Ethanol (CAS #: 64-17-5)	-0.32
Propan-2-ol (CAS #: 67-63-0)	0.05
1-methoxypropan-2-ol (CAS #: 107-98-2)	-0.437

C.I. Pigment Blue 60 (CAS #: 147-14-8)	6.6
Chemical Name	Bioconcentration factor (BCF)
Propane-1,2-dio (CAS #: 57-55-6)	<1
1-methoxypropan-2-ol (CAS #: 107-98-2)	<2
C.I. Pigment Blue 60 (CAS #: 147-14-8)	<3.6

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations

SECTION 14: Transport information

14.1 UN Number	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions	No information available
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Chemical Name	French RG number	Title
Ethanol (CAS #: 64-17-5)	RG 84	-
Propane-1,2-dio (CAS #: 57-55-6)	RG 84	-
Propan-2-ol (CAS #: 67-63-0)	RG 84	-
1-methoxypropan-2-ol (CAS #: 107-98-2)	RG 84	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Ethanol 64-17-5	X	X	X	X	X	X	X	X
Propane-1,2-dio 57-55-6	X	X	X	X	X	X	X	X
Propan-2-ol 67-63-0	X	X	X	X	X	X	X	X
1-methoxypropan-2- ol 107-98-2	X	X	X	X	X	X	X	X
Indanthrene 81-77-6	X	X	X	X	X	X	X	X
Polyvinyl butyral 63148-65-2	X	X	-	X	X	X	X	X
C.I. Pigment Blue 60 147-14-8	X	X	X	X	X	X	X	X

"-" Not Listed

"X" Listed

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

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Issue Date 30-Jun-2015
Revision date 30-Jun-2015
Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

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KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Full text of H-Statements referred to under section 3

H336 - May cause drowsiness or dizziness

H226 - Flammable liquid and vapor

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

----- End of Safety Data Sheet -----

