

Safety Data Sheet (SDS) Report

Applicant: Suzhou xiongying ink technology co.LTD.

Yun li road NO539 wujiang economic development zone

of Suzhou city, China.

Sample Description:

The sample information was submitted and identified on client's behalf to be:

Product Name : Black Permanent Marker

Physical State : Liquid

Data Received : Nov 21, 2017

Data Reviewed : Nov 27, 2017

Service Requested:

Based on the information provided by the applicant, the Safety Data Sheet (SDS) was generated in accordance with requirements of Regulation (EC) No1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008, for details please refer to attached pages.

Disclaimer:

Intertek had made every effort to advise clients to make separate SDS report according to different colors based on the regulatory compliance consideration. Due to clients' insistence, Intertek generated one SDS report covering multiple colors. And Intertek would not be responsible for any problems arising from multi-color report.

Authorized By:

On Behalf Of Regulatory Affairs in Intertek Testing Services Ltd., Shanghai

Anna Wang Regulatory Consultant This report shall not be reproduced except in full, without the written approval of the laboratory.

SDS number:

Issue Date:

WUXH00065022

2017-11-27

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White Board Ink

Suzhou xiongying ink technology co.LTD.

SDS number: WUXH00065022

Version No:1.0

Safety Data Sheet (Conforms to Regulation (EC) No 1907/2006 and Regulation (EU) No 2015/830)

Issue Date:27/11/2017 S.REACH.DEU.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product Identifier

Product name	roduct name Efimeso Black Permanent Marker			
Synonyms	Not Available			
Other means of identification Not Available				

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

Relevant identified uses	Use of the board marker pen
Uses advised against	Not Applicable

1.3. Details of the supplier of the safety data sheet

Supplier name	Suzhou xiongying ink technology co.LTD.				
Address	run li road NO539 wujiang economic development zone of suzhou city, China.				
Telephone	6-15962550010				
Emergency telephone	961825609				
Email	shenghong001@126.com				
Importer name					
Address					
Telephone					
Email					

1.4. Emergency telephone number

Association / Organisation	
Emergency telephone numbers	
Other emergency telephone numbers	

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Considered a hazardous mixture according to Reg. (EC) No 1272/2008 and their amendments. Not classified as Dangerous Goods for transport purposes.

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

H319 - Eye Irritation Category 2, H336 - Specific target organ toxicity - single exposure Category 3 (narcotic effects)

2.2. Label elements

Hazard pictogram(s)



SIGNAL WORD

WARNING

Hazard statement(s)

H319	Causes serious eye irritation.	
H336	May cause drowsiness of dizziness.	

Supplementary statement(s)

Not Applicable

CLP classification (additional)

Not Applicable

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.			
P102	Keep out of reach of children.			
P103	Read label before use.			

Precautionary statement(s) Prevention

P271 Use only outdoors or in a well-ventilated area.			
P261 Avoid breathing mist/vapours/spray.			
P280 Wear protective gloves/protective clothing/eye protection/face protection.			

Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.				
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.				
P337+P313	If eye irritation persists: Get medical advice/attention.				
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.				

Precautionary statement(s) Storage

P405	Store locked up.			
P403+P233 Store in a well-ventilated place. Keep container tightly closed.				

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

2.3. Other hazards

Cumulative effects may result following exposure*.

REACh - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP]
1.64-17-5 2.200-578-6 3.603-002-00-5 4.Not Available	50	<u>ethanol</u>	Flammable Liquid Category 2, Eye Irritation Category 2; H225,H319
1.67-63-0 2.200-661-7 3.603-117-00-0 4.Not Available	30	<u>isopropanol</u>	Flammable Liquid Category 2, Eye Irritation Category 2, Specific target organ toxicity - single exposure Category 3 (narcotic effects); H225, H319, H336
1.27214-90-0 2.248-333-2 3.Not Available 4.Not Available	5	diisooctyl sebacate	Not Classified
1.123-95-5 2.204-666-5 3.Not Available 4.Not Available	5	butyl stearate	Not Classified
1.103-23-1 2.203-090-1 3.Not Available 4.Not Available	3	dioctyl adipate	Not Classified
1.1333-86-4 2.215-609-9 3.Not Available 4.Not Available	0-7	C.I. Pigment Black	Not Classified
1.147-14-8 2.205-685-1 3.Not Available 4.Not Available	0-7	C.I. Pigment Blue 15:3	Not Classified

1.6535-46-2 2.229-440-3 3.Not Available 4.Not Available	0-7	C.I. Pigment Red 112	Not Classified
1.1328-53-6 2.215-524-7 3.Not Available 4.Not Available	0-7	C.I. Pigment Green 7	Not Classified
1.2786-76-7 2.220-509-3 3.Not Available 4.Not Available	0-7	C.I. Pigment Red 170	Not Classified
1.5567-15-7 2.226-939-8 3.611-024-00-1 4.Not Available	0-7	C.I. Pigment Yellow 83	Not Classified
1.6358-30-1 2.228-767-9 3.Not Available 4.Not Available	0-5	C.I. Pigment Violet 23	Not Classified

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. For thermal burns: Decontaminate area around burn. Consider the use of cold packs and topical antibiotics.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

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

Treat symptomatically

Periodic medical surveillance should be carried out on persons in occupations exposed to the manufacture or bulk handling of the product and this should include hepatic function tests and urinalysis examination. [ILO Encyclopaedia]

For acute or short term repeated exposures to ethanol:

- Acute ingestion in non-tolerant patients usually responds to supportive care with special attention to prevention of aspiration, replacement of fluid and correction of nutritional deficiencies (magnesium, thiamine pyridoxine, Vitamins C and K).
- Comatose patients should be treated with initial attention to airway, breathing, circulation and drugs of immediate importance (glucose, thiamine).
- Decontamination is probably unnecessary more than 1 hour after a single observed ingestion. Cathartics and charcoal may be given but are probably not effective in single ingestions.
- Fructose administration is contra-indicated due to side effects.

For acute or short term repeated exposures to isopropanol:

- ▶ Rapid onset respiratory depression and hypotension indicates serious ingestions that require careful cardiac and respiratory monitoring together with immediate intravenous access.
- Rapid absorption precludes the usefulness of emesis or lavage 2 hours post-ingestion. Activated charcoal and cathartics are not clinically useful. Ipecac is most useful when given 30 mins. post-ingestion.
- There are no antidotes.
- ▶ Management is supportive. Treat hypotension with fluids followed by vasopressors.
- Watch closely, within the first few hours for respiratory depression; follow arterial blood gases and tidal volumes.
- ▶ Ice water lavage and serial haemoglobin levels are indicated for those patients with evidence of gastrointestinal bleeding.

SECTION 5 FIREFIGHTING MEASURES

5.1. Extinguishing media

- Alcohol stable foam.
- Dry chemical powder.
- ▶ BCF (where regulations permit).
- Carbon dioxide.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility

▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

5.3. Advice for firefighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area.
Fire/Explosion Hazard	 ▶ Combustible. ▶ Slight fire hazard when exposed to heat or flame. ▶ Heating may cause expansion or decomposition leading to violent rupture of containers. ▶ On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: carbon dioxide (CO2) hydrogen chloride phosgene nitrogen oxides (NOx) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	 Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.
Major Spills	Moderate hazard. ► Clear area of personnel and move upwind. ► Alert Fire Brigade and tell them location and nature of hazard. ► Wear breathing apparatus plus protective gloves.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

7.1. Precautions for safe handling			
Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT allow clothing wet with material to stay in contact with skin 		
Fire and explosion protection	See section 5		
Other information	 Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area. 		

7.2. Conditions for safe storage, including any incompatibilities

7.2. Conditions for safe stora	age, including any incompatibilities
Suitable container	 ▶ PP container. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Isopropanol (syn: isopropyl alcohol, IPA): • forms ketones and unstable peroxides on contact with air or oxygen; the presence of ketones especially methyl ethyl ketone (MEK, 2-butanone) will accelerate the rate of peroxidation • reacts violently with strong oxidisers, powdered aluminium (exothermic), crotonaldehyde, diethyl aluminium bromide (ignition), dioxygenyl tetrafluoroborate (ignition/ ambient temperature), chromium trioxide (ignition), potassium-tert-butoxide (ignition), nitroform (possible explosion), oleum (pressure increased in closed container), cobalt chloride, aluminium triisopropoxide, hydrogen plus palladium dust (ignition), oxygen gas, phosgene, phosgene plus iron salts (possible explosion), sodium dichromate plus sulfuric acid (exothermic/ incandescence), triisobutyl aluminium • reacts with phosphorus trichloride forming hydrogen chloride gas • reacts, possibly violently, with alkaline earth and alkali metals, strong acids, strong caustics, acid anhydrides, halogens, aliphatic amines, aluminium isopropoxide, isocyanates, acetaldehyde, barium perchlorate (forms highly explosive perchloric ester compound), benzoyl peroxide, chromic acid, dialkylzincs, dichlorine oxide, ethylene oxide (possible explosion), hexamethylene diisocyanate (possible explosion), hydrogen peroxide (forms explosive compound), hypochlorous acid, isopropyl chlorocarbonate, lithium aluminium hydride, lithium tetrahydroaluminate, nitric acid, nitrogen dioxide, nitrogen tetraoxide (possible explosion), pentafluoroguanidine, perchloric acid (especially hot), permonosulfuric acid, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium, trinitromethane • attacks some plastics, rubber and coatings • reacts with metallic aluminium at high temperature • may generate electrostatic charges • Avoid oxidising agents, acids, acid chlorides, acid anhydrides, oxidising and reducing agents. • reacts with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic aci

- right dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium
- ▶ should not be heated above 49 deg. C. when in contact with aluminium equipment
- Figure 1 Toxic gases are formed by mixing azo and azido compounds with acids, aldehydes, amides, carbamates, cyanides, inorganic fluorides, halogenated organics, isocyanates, ketones, metals, nitrides, peroxides, phenols, epoxides, acyl halides, and strong oxidising or reducing agents.
- ▶ Flammable gases are formed by mixing azo and azido compounds with alkali metals.
- ▶ Explosive combination can occur with strong oxidising agents, metal salts, peroxides, and sulfides
- Azo, diazo and azido compounds can detonate especially where organic azides have been sensitised by the addition of metal salts or strong acids. Secondary alcohols and some branched primary alcohols may produce potentially explosive peroxides after exposure to light and/ or heat.

7.3. Specific end use(s)

See section 1.2

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

DERIVED NO EFFECT LEVEL (DNEL)

Not Available

PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Germany Recommended Exposure Limits - MAK Values (English)	ethanol	Ethanol	960 mg/m3 / 500 ppm	II (2) ppm	Not Available	Not Available
Germany TRGS 900 - Limit Values for the Workplace Atmosphere (German)	ethanol	Ethanol	960 mg/m3 / 500 ppm	Not Available	Not Available	Not Available
Germany Recommended Exposure Limits - MAK Values (English)	isopropanol	Isopropyl alcohol	500 mg/m3 / 200 ppm	II (2) ppm	Not Available	Not Available
Germany TRGS 900 - Limit Values for the Workplace Atmosphere (German)	isopropanol	Propan-2-ol	500 mg/m3 / 200 ppm	Not Available	Not Available	Not Available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment.

8.2.2. Personal protection









- Safety glasses with side shields.
- Chemical goggles Eve and face protection
 - Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

Skin protection

See Hand protection below

- ▶ Wear chemical protective gloves, e.g. PVC.

▶ Wear safety footwear or safety gumboots, e.g. Rubber The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final

Personal hygiene is a key element of effective hand care.

Body protection

Hands/feet protection

See Other protection below

Other protection

- Overalls
- ► P.V.C. apron. Barrier cream

Thermal hazards

Not Available

Respiratory protection

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	black,blue,red,green,violet,yellow,orange,skyblue,pink liquid			
Physical state	Liquid	Relative density (Water = 1)	Not Available	
Odour	Not Available	Partition coefficient n-octanol / water	Not Available	
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available	
pH (as supplied)	Not Available	Decomposition temperature	Not Available	
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available	
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available	
Flash point (°C)	Not Available	Taste	Not Available	
Evaporation rate	Not Available	Explosive properties	Not Available	
Flammability	Not Flammable	Oxidising properties	Not Available	
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available	
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available	
Vapour pressure (kPa)	Not Available	Gas group	Not Available	
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available	
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available	

9.2. Other information

Not Available

SECTION 10 STABILITY AND REACTIVITY

10.1.Reactivity	See section 7.2
10.2. Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. Animal testing shows that the most common signs of inhalation overdose is inco-ordination and drowsiness. Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness and delirium, central depression, coma, seizures and behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and irregular heart rhythms, may follow. Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness slowing of reflexes, fatigue and inco-ordination. The odour of isopropanol may give some warning of exposure, but odour fatigue may occur. Inhalation of isopropanol may produce irritation of the nose and throat with sneezing, sore throat and runny nose.		
	Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle weakness and inco-ordination, giddiness, confusion, delirium and coma. Ingestion of ethanol (ethyl alcohol, 'alcohol') may produce nausea, vomiting, bleeding from the digestive tract, abdominal pain, and diarrhoea. Effects on the body.		
	Blood concentration Effects		

	Ingestion of ethanol (ethyl alcohol, 'alcohol') may produce nausea, vomiting, bleeding from the digestive tract, abdominal pain, and diarrhoea. Effects on the body:		
Ingestion	Blood concentration	Effects	
	<1.5 g/L	Mild: impaired vision, co-ordination and reaction time; emotional instability	
	1.5-3.0 g/L	Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardized tests. Possible double vision, flushing, fast heart rate, sweating and incontinence.	

	Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium.			
	The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence. Swallowing 10 millilitres of isopropanol may cause serious injury; 100 millilitres may be fatal if not properly treated. The adult single lethal dose is approximately 250 millililitres. Isopropanol is twice as poisonous as ethanol, and the effects caused are similar, except that isopropanol does not cause an initial feeling of well-being. Swallowing may cause nausea, vomiting and diarrhea; vomiting and stomach inflammation is more prominent with isopropanol than with ethanol.			
Skin Contact	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Most liquid alcohols appear to act as primary skin irritants in humans. Significant percutaneous absorption occurs in rabbits but not apparently in man. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. 511ipa There is some evidence to suggest that the material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.			
Еуе	tearing injury to the comea together with redness of t Isopropanol vapour may cause mild eye irritation at 4 damage. Eye contact may cause tearing and blurring	cause an immediate stinging and burning sensation, with reflex closure of the lid, and a temporary, the conjunctiva. Discomfort may last 2 days but usually the injury heals without treatment. 00 parts per million. Splashes may cause severe eye irritation, possible burns to the comea and eye of vision. ation in some persons and produce eye damage 24 hours or more after instillation. Severe		
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course. Prolonged exposure to ethanol may cause damage to the liver and cause scarring. It may also worsen damage caused by other agents. Long term, or repeated exposure of isopropanol may cause inco-ordination and tiredness. Repeated inhalation exposure to isopropanol may produce sleepiness, inco-ordination and liver degeneration. Animal data show developmental effects only at exposure levels that produce toxic effects in adult animals. Isopropanol does not cause genetic damage.			
White Board Ink	TOXICITY	IRRITATION		
	Not Available	Not Available		
ethanol	TOXICITY Dermal (rabbit) LD50: 17100 mg/kg ^[1] Inhalation (rat) LC50: 63926.976 mg/l/4h ^[2] Oral (rat) LD50: 7060 mg/kg ^[2]	IRRITATION Eye (rabbit): 500 mg SEVERE Eye (rabbit):100mg/24hr-moderate Skin (rabbit):20 mg/24hr-moderate Skin (rabbit):400 mg (open)-mild		
isopropanol	TOXICITY IRRITATION			
butyl stearate	TOXICITY Oral (rat) LD50: 32000 mg/kg ^[2]	IRRITATION Skin (rabbit): 500 mg moderate		
dioctyl adipate	TOXICITY Dermal (rabbit) LD50: 8410 mg/kg ^[2] Oral (rat) LD50: 7392 mg/kg ^[2]	IRRITATION Eye (rabbit): 500 mg (open) Eye (rabbit): 500 mg/24h - mild Skin (rabbit): 500 mg(open)-mild		
C.I. Pigment Black 7	TOXICITY Dermal (rabbit) LD50: >3000 mg/kg ^[2] Oral (rat) LD50: >10000 mg/kg ^[1]	IRRITATION Not Available		
C.I. Pigment Blue 15:3	TOXICITY Oral (rat) LD50: >10,000 mg/kg ^[2]	IRRITATION Eye (human): non irritant Skin (human): non irritant		

C.I. Pigment Red 112	TOXICITY	IRRITATION	
	Oral (rat) LD50: >5000 mg/kg ^[2]	Not Available	
	TOXICITY	IRRITATION	
C.I. Pigment Green 7	Oral (rat) LD50: >2000 mg/kg ^[1]	Not Available	
C.I. Pigment Red 170	TOXICITY	IRRITATION Not Available	
	Oral (rat) LD50: >10000 mg/kg ^[2]	Not Available	
	TOXICITY	IRRITATION	
C.I. Pigment Yellow 83	Oral (rat) LD50: >1230 mg/kg ^[1]	Eye (rabbit): nor	-irritating
ŭ		Skin (rabbit): no	
C.I. Birmant Violet 00	TOXICITY	IRRITATION	
C.I. Pigment Violet 23	Oral (rat) LD50: >2000 mg/kg ^[1] Skin (rabbit): Non-irritating *		
Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances			
Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	0	Reproductivity	0
Serious Eye Damage/Irritation	~	STOT - Single Exposure	
Respiratory or Skin sensitisation	0	0	
Mutagenicity	0	0	

Legend:

X − Data available but does not fill the criteria for classification
 ✓ − Data available to make classification

O – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE Not Available
White Board Ink	Not Available	Not Available	Not Available	Not Available	
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	42mg/L	4
ethanol	EC50	48	Crustacea	2mg/L	4
	EC50	96	Algae or other aquatic plants	17.921mg/L	4
	NOEC	2016	Fish	0.000375mg/L	4
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>1400mg/L	4
	EC50	48	Crustacea	12500mg/L	5
isopropanol	EC50	72	Algae or other aquatic plants	>1000mg/L	1
	EC29	504	Crustacea	=100mg/L	1
	NOEC	5760	Fish	0.02mg/L	4
	-		'	'	
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>0.78mg/L	4
dioctyl adipate	EC50	48	Crustacea	0.66mg/L	5
	EC50	72	Algae or other aquatic plants	>1.4mg/L	1
	BCF	672	Fish	0.25mg/L	4
	NOEC	504	Crustacea	>=0.0044mg/L	2

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
C.I. Pigment Black 7	LC50	96	Fish	=1000mg/L	1
	NOEC	96	Fish	=1000mg/L	1
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
C.I. Pigment Red 170	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea >110mg		2
	NOEC	504	Crustacea	30mg/L	2
C.I. Pigment Yellow 83	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
C.I. Fighteric Tellow 63	LC50	96	Fish	124mg/L	2
Legend:		UCLID Toxicity Data 2. Europe ECHA Toxicity Data (Estimated) 4. US EPA,			

12.2. Persistence and degradability

	•	
Ingredient	Persistence: Water/Soil	Persistence: Air
ethanol	LOW (Half-life = 2.17 days)	LOW (Half-life = 5.08 days)
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)
diisooctyl sebacate	LOW	LOW
butyl stearate	LOW	LOW
dioctyl adipate	LOW (Half-life = 56 days)	LOW (Half-life = 1.08 days)
C.I. Pigment Blue 15:3	HIGH	HIGH
C.I. Pigment Yellow 83	HIGH	HIGH

(Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
ethanol	LOW (LogKOW = -0.31)
isopropanol	LOW (LogKOW = 0.05)
diisooctyl sebacate	LOW (LogKOW = 10.2268)
butyl stearate	LOW (LogKOW = 9.704)
dioctyl adipate	HIGH (BCF = 2700)
C.I. Pigment Blue 15:3	LOW (BCF = 11)
C.I. Pigment Green 7	LOW (BCF = 74)
C.I. Pigment Yellow 83	LOW (LogKOW = 8.6648)

12.4. Mobility in soil

•	
Ingredient	Mobility
ethanol	HIGH (KOC = 1)
isopropanol	HIGH (KOC = 1.06)
diisooctyl sebacate	LOW (KOC = 665000)
butyl stearate	LOW (KOC = 391800)
dioctyl adipate	LOW (KOC = 48630)
C.I. Pigment Blue 15:3	LOW (KOC = 1000000000)
C.I. Pigment Yellow 83	LOW (KOC = 1126000)

12.5.Results of PBT and vPvB assessment

	P	В	Т
Relevant available data	Not Available	Not Available	Not Available
PBT Criteria fulfilled?	Not Available	Not Available	Not Available

12.6. Other adverse effects

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Legislation addressing waste disposal requirements may differ by country, state and/or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: ► Reduction ▶ Reuse Recycling ► Disposal (if all else fails) This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Product / Packaging disposal ▶ DO NOT allow wash water from cleaning or process equipment to enter drains It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Where in doubt contact the responsible authority. ▶ Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. ▶ Bury or incinerate residue at an approved site. ▶ Recycle containers if possible, or dispose of in an authorised landfill. Waste treatment options Not Available Sewage disposal options Not Available

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant NO

Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Land transport (ADR): NOT R	EGULAIED FOR TRANSPOR	RT OF DANGEROUS GOODS			
14.1.UN number	Not Applicable				
14.2.UN proper shipping name	Not Applicable	Not Applicable			
14.3. Transport hazard class(es)	Class Not Applicable Subrisk Not Applicable				
14.4.Packing group	Not Applicable				
14.5.Environmental hazard	Not Applicable				
14.6. Special precautions for user	Classification code Hazard Label	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable			

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable			
14.2. UN proper shipping name	Not Applicable			
14.3. Transport hazard class(es)	ICAO/IATA Class Not Applicable ICAO / IATA Subrisk Not Applicable ERG Code Not Applicable			
14.4. Packing group	Not Applicable			
14.5. Environmental hazard	Not Applicable			
14.6. Special precautions for user	Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Passenger and Cargo Packing Instructions Passenger and Cargo Maximum Qty / Pack Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable		

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable		
14.2. UN proper shipping name	Not Applicable		
14.3. Transport hazard class(es)	IMDG Class Not Applicable IMDG Subrisk Not Applicable		

14.4. Packing group	Not Applicable		
14.5. Environmental hazard	Not Applicable		
14.6. Special precautions for user	EMS Number Special provisions Limited Quantities		

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable		
14.2. UN proper shipping name	Not Applicable		
4.3. Transport hazard class(es)	Not Applicable Not Applicable		
14.4. Packing group	Not Applicable		
14.5. Environmental hazard	Not Applicable		
14.6. Special precautions for user	Classification code Not Applicable Special provisions Not Applicable Limited quantity Not Applicable Equipment required Not Applicable Fire cones number Not Applicable		

14.7. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

ETHANOL(64-17-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles European Customs Inventory of Chemical Substances ECICS (English)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

Germany Recommended Exposure Limits - MAK Values - Carcinogens

Germany Recommended Exposure Limits - MAK Values - Pregnancy Risk Group Classifications & Germ Cell Mutagens

Germany TRGS 900 - Limit Values for the Workplace Atmosphere (German)

Germany Recommended Exposure Limits - MAK Values (English)

ISOPROPANOL(67-63-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

European Customs Inventory of Chemical Substances ECICS (English)

European Trade Union Confederation (ETLIC) Priority List for REACH.

European Trade Union Confederation (ETUC) Priority List for REACH Authorisation European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

Germany Recommended Exposure Limits - MAK Values - Pregnancy Risk Group Classifications & Germ Cell Mutagens

Germany Recommended Exposure Limits - MAK Values (English)
Germany TRGS 900 - Limit Values for the Workplace Atmosphere (German)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC

Monographs

DIISOOCTYL SEBACATE(27214-90-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

BUTYL STEARATE(123-95-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

European Customs Inventory of Chemical Substances ECICS (English)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

DIOCTYL ADIPATE(103-23-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances

European Customs Inventory of Chemical Substances ECICS (English)
European Trade Union Confederation (ETUC) Priority List for REACH Authorisation

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC

Monographs

C.I. PIGMENT BLACK 7(1333-86-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances

European Customs Inventory of Chemical Substances ECICS (English) European List of Notified Chemical Substances (ELINCS) European Trade Union Confederation (ETUC) Priority List for REACH Authorisation

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

(English)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

C.I. PIGMENT BLUE 15:3(147-14-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

European Customs Inventory of Chemical Substances ECICS (English)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. PIGMENT RED 112(6535-46-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. PIGMENT GREEN 7(1328-53-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

European Customs Inventory of Chemical Substances ECICS (English) European List of Notified Chemical Substances (ELINCS)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. PIGMENT RED 170(2786-76-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. PIGMENT YELLOW 83(5567-15-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 2) Carcinogens: category European Customs Inventory of Chemical Substances ECICS (English)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English) European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and

1B (Table 3.1)/category 2 (Table 3.2)

Packaging of Substances and Mixtures - Annex VI

European Trade Union Confederation (ETUC) Priority List for REACH Authorisation

Germany TRGS 905 - List of Carcinogenic, Mutagenic or Reproductive Toxic Substances (German)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

C.I. PIGMENT VIOLET 23(6358-30-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

European Customs Inventory of Chemical Substances ECICS (English)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable -: 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Commission Regulation (EU) 2015/830, Regulation (EC) No 1272/2008 and their amendments

15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available

15.3. Classification of Substances and Mixtures into Water Hazard Classes

PREPARATION IS WGK 3

Name	WGK	Score	Source
ETHANOL	1		W: VwVwS
ISOPROPANOL	1		W: VwVwS
DIISOOCTYL SEBACATE	non-hazardous to waters	0	Calculated
BUTYL STEARATE	1		P: Classification according to annex 3
DIOCTYL ADIPATE	2		P: Classification according to annex 3
C.I. PIGMENT BLACK 7	non-hazardous to waters		W: VwVwS
C.I. PIGMENT BLUE 15:3	non-hazardous to waters		W: VwVwS
C.I. PIGMENT RED 112	non-hazardous to waters	0	Calculated
C.I. PIGMENT GREEN 7	1		P: Classification according to annex 3
C.I. PIGMENT RED 170	non-hazardous to waters	0	Calculated
C.I. PIGMENT YELLOW 83	3		V: KBwS-Decision
C.I. PIGMENT VIOLET 23	1		P: Classification according to annex 3

SECTION 16 OTHER INFORMATION

Full text Risk and Hazard codes

Highly flammable liquid and vapour.

Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered. For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index