Lyreco Group (Lyreco France)

Chemwatch: **4854-16** Version No: **2.1.1.1**

Safety Data Sheet (Conforms to Regulations (EC) No 453/2010)

Chemwatch Hazard Alert Code: 3 Issue Date: 04/22/2013 Print Date: 02/19/2015

Print Date: 02/19/2015 Initial Date: Not Available S.REACH.GBR.EN

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

1.1.Product Identifier

Product name	LYRECO CORRECTION PEN 7ML DARK BLUE
Synonyms	Not Available
Proper shipping name	METHYLCYCLOHEXANE
Other means of identification	Not Available
Index number	Not Applicable

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

Relevant identified uses	Correction pen. NOTE: Information on this SDS refers to ink used in pens and markers, however, it applies to these inks in bulk.
Uses advised against	Not Applicable

1.3. Details of the manufacturer/importer

Registered company name	Lyreco Group (Lyreco France)
Address	Rue du 19 Mars 1962 Marly 59770 France
Telephone	+33 3 27 23 64 00 (9a.m-5p.m. CET.)
Fax	Not Available
Website	Not Available
Email	Not Available

1.4. Emergency telephone number

5 , ·	
Association / Organisation	Not Available
Emergency telephone numbers	+33 3 27 23 64 00 (9a.m-5p.m. CET.)
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Considered a dangerous mixture according to Directive 1999/45/EC, Reg. (EC) No 1272/2008 (if applicable) and their amendments. Classified as Dangerous Goods for transport purposes.

CHEMWATCH HAZARD RATINGS

		Min	Max	
Flammability	3			
Toxicity	2			0 = Minimum
Body Contact	2			1 = Low 2 = Moderate
Reactivity	2			3 = High
Chronic	2			4 = Extreme

DSD classification	In case of m	nixtures, classification has been prepared by following DPD (Directive 1999/45/EC) and CLP Regulation (EC) No 1272/2008 regulations
	R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R38	Irritating to skin.
	R67	Vapours may cause drowsiness and dizziness.
DPD classification ^[1]	R65	HARMFUL-May cause lung damage if swallowed.
	R43	May cause SENSITISATION by skin contact.
	R11	Highly flammable.
Legend:	1. Classified VI	d by Chernwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex
Classification according to regulation (EC) No 1272/2008 [CLP] ^[1]		Liquid Category 2, Skin Corrosion/Irritation Category 2, Skin Sensitizer Category 1, STOT - SE (Narcosis) Category 3, Aspiration Hazard , Chronic Aquatic Hazard Category 2

Legend: 1. Classified by Chemwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I; 3. Classification drawn from EC Directive 1272/2008 - Annex

2.2. Label elements	
CLP label elements	
SIGNAL WORD	DANGER
Hazard statement(s)	
H225	Highly flammable liquid and vapour
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H336	May cause drowsiness or dizziness
H304	May be fatal if swallowed and enters airways
H411	Toxic to aquatic life with long lasting effects
	s)
Supplementary statement(s Not Applicable Precautionary statement(s)	
Not Applicable Precautionary statement(s P101	Prevention If medical advice is needed, have product container or label at hand.
Not Applicable Precautionary statement(s)) Prevention
Not Applicable Precautionary statement(s) P101 P210	Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Not Applicable Precautionary statement(s P101	Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Not Applicable Precautionary statement(s) P101 P210 Precautionary statement(s) P301+P310	 Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider
Not Applicable Precautionary statement(s P101 P210 Precautionary statement(s	 Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider
Not Applicable Precautionary statement(s) P101 P210 Precautionary statement(s) P301+P310 Precautionary statement(s) P403+P235	Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider Storage Store in a well-ventilated place. Keep cool.
Not Applicable Precautionary statement(s) P101 P210 Precautionary statement(s) P301+P310 Precautionary statement(s) P403+P235	Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider Storage Store in a well-ventilated place. Keep cool.
Not Applicable Precautionary statement(s) P101 P210 Precautionary statement(s) Precautionary statement(s) P403+P235 Precautionary statement(s) P501	 Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider Storage Store in a well-ventilated place. Keep cool. Disposal
Not Applicable Precautionary statement(s) P101 P210 Precautionary statement(s) Precautionary statement(s) P403+P235 Precautionary statement(s) P501	 Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider Storage Store in a well-ventilated place. Keep cool. Disposal
Not Applicable Precautionary statement(s) P101 P210 Precautionary statement(s) Precautionary statement(s) P403+P235 Precautionary statement(s) P501	Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider Storage Store in a well-ventilated place. Keep cool. Disposal Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
Not Applicable Precautionary statement(s) P101 P210 Precautionary statement(s) Precautionary statement(s) P403+P235 Precautionary statement(s) P501	Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider Storage Store in a well-ventilated place. Keep cool. Disposal Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration Inhalation and/or ingestion may produce health damage*.
Not Applicable Precautionary statement(s) P101 P210 Precautionary statement(s) Precautionary statement(s) P403+P235 Precautionary statement(s) P501	Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider Storage Store in a well-ventilated place. Keep cool. Disposal Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration Inhalation and/or ingestion may produce health damage*. May produce discomfort of the eyes and respiratory tract*.
Not Applicable Precautionary statement(s) P101 P210 Precautionary statement(s) Precautionary statement(s) Precautionary statement(s) P403+P235 Precautionary statement(s)	Prevention If medical advice is needed, have product container or label at hand. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider Storage Store in a well-ventilated place. Keep cool. Disposal Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration Inhalation and/or ingestion may produce health damage*. May produce discomfort of the eyes and respiratory tract*. Limited evidence of a carcinogenic effect*.

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 directive 67/548/EEC [DSD]	Classification according to regulation (EC) No 1272/2008 [CLP]
1.13463-67-7 2.215-280-1, 215-282-2, 236-675-5, 619-318-1 3.Not Available 4.01-2119954396-27-XXXX, 01-2119489379-17-XXXX	50-60	titanium dioxide	R49 ^[1]	Carcinogen Category 1A; H350i ^[1]
1.108-87-2 2.203-624-3, 927-510-4, 927-033-1 3.601-018-00-7 4.01-2119556887-18-XXXX	40-50	methylcyclohexane	R11, R38, R51/53, R65, R67 ^[2]	Flam. Liq. 2, Asp. Tox. 1, Skin Irrit. 2, STOT SE 3, Aquatic Chronic 2; H225, H304, H315, H336, H411 ^[3]

1.97-86-9 2.202-613-0 3.607-113-00-X 4.01-2119488331-38-XXXX	5-10	<u>iso-butyl</u> methacrylate	R10, R36/37/38, R43, R50 ^[2]	Flam. Liq. 3, Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Skin Sens. 1, Aquatic Acute 1; H226, H319, H335, H315, H317, H400 ^[3]
Legend:		by Chemwatch; 2. Classi ion drawn from C&L	fication drawn from EC Directive 67/548/EE0	C - Annex I; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures • For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vom F If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. · Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. General Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. 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. 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. If this product comes in contact with the eves: Wash out immediately with fresh running water. Eve Contact 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 If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Skin Contact Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Inhalation Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary Transport to hospital, or doctor. For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce ve F If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Indestion Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.

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

- For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:
 - Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
 - Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50 mm Hg) should be intubated.
 - Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
 - A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhom and Barceloux: Medical Toxicology]

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

SECTION 5 FIREFIGHTING MEASURES

	-
	▶ Foam.
5.2. Special hazards arisir	ng 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.
Fire/Explosion Hazard	Liquid and vapour are highly flammable.
SECTION 6 ACCIDENTAL	. RELEASE MEASURES
6.1. Personal precautions	, protective equipment and emergency procedures
	See section 8
6.2. Environmental precau	itions
	See section 12
6.3. Methods and material	for containment and cleaning up
Minor Spills	Remove all ignition sources.
Major Spills	► Clear area of personnel and move upwind.
6.4. Reference to other se	ctions
	Personal Protective Equipment advice is contained in Section 8 of the MSDS.
SECTION 7 HANDLING A	ND STORAGE
7.1. Precautions for safe h	
Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact, including inhalation.
Fire and explosion protection	See section 5
Other information	Store in original containers in approved flame-proof area.
7.2. Conditions for safe st	torage, including any incompatibilities
Suitable container	Packing as supplied by manufacturer.
Storage incompatibility	 Avoid reaction with oxidising agents Avoid strong acids, bases.
PACKAGE MATERIAL INCOMP	PATIBILITIES
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)

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs)	titanium dioxide	Titanium dioxide total inhalable / Titanium dioxide respirable	10 mg/m3 / 4 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
titanium dioxide	Titanium oxide; (Titanium dioxide)	10 mg/m3	10 mg/m3	10 mg/m3
methylcyclohexane	Methylcyclohexane	400 ppm		10000 ppm
Ingredient	Original IDLH	Revised IDLH		
titanium dioxide	N.E. / N.E.	5,000 mg/m3		
methylcyclohexane	10,000 ppm	1,200 [LEL] ppm		

iso-butyl methacrylate	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.
8.2.2. Personal protection		
Eye and face protection	 Safety glasses with side shields. 	
Skin protection	See Hand protection below	
Hands/feet protection	Wear chemical protective gloves, e.g. PVC.	
Body protection	See Other protection below	
Other protection	► Overalls.	
Thermal hazards	Not Available	

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

LYRECO CORRECTION PEN 7ML DARK BLUE Not Available

Material

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as

"feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

CPI

Respiratory protection

Type A-P Filter of sufficient capacity.

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

 $\begin{array}{l} \mathsf{A}(\mathsf{All \ classes}) = \mathsf{Organic \ vapours}, \mathsf{B} \ \mathsf{AUS \ or \ B1} = \mathsf{Acid \ gasses}, \ \mathsf{B2} = \mathsf{Acid \ gas \ or \ hydrogen \ cyanide(HCN)}, \ \mathsf{B3} = \mathsf{Acid \ gas \ or \ hydrogen \ cyanide(HCN)}, \ \mathsf{E} = \mathsf{Sulfur \ dioxide(SO2)}, \ \mathsf{G} = \mathsf{Agricultural \ chemicals}, \ \mathsf{K} = \mathsf{Ammonia}(\mathsf{NH3}), \ \mathsf{Hg} = \mathsf{Mercury}, \ \mathsf{NO} = \mathsf{Oxides \ of \ nitrogen}, \ \mathsf{MB} = \mathsf{Methyl \ bromide}, \ \mathsf{AX} = \mathsf{Low \ boiling \ point \ organic \ compounds(below \ 65 \ degC)} \end{array}$

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	Highly flammable liquid; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	>1.1
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	>500
Melting point / freezing point (°C)	-126	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	99	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	-2.5	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	7.2	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.1	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

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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.
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	Inhalation of vapours may cause drowsiness and dizziness.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual.
Skin Contact	This material can cause inflammation of the skin on contact in some persons.
Eye	There is some evidence to suggest that this material can cause eye irritation and damage in some persons.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

LYRECO CORRECTION	TOXICITY	IRRITATION	
PEN 7ML DARK BLUE	Not Available	Not Available	
	тохісіту	IRRITATION	
	Inhalation (rat) LC50: >2.28 mg/l4 h ^[1]	Skin (human):	0.3 mg /3D (int)-mild *
	Inhalation (rat) LC50: >3.56 mg/l4 h ^[1]		
titanium dioxide	Inhalation (rat) LC50: >6.82 mg/l4 h ^[1]		
	Inhalation (rat) LC50: 3.43 mg/l4 h ^[1]		
	Inhalation (rat) LC50: 5.09 mg/l4 h ^[1]		
	Oral (rat) LD50: >2000 mg/kg ^[1]		
	TOXICITY	IRRITATION	
	dermal (rat) LD50: >=3080 mg/kg ^[1]	Not Available	
	Inhalation (mouse) LC50: 36.9 mg/L/2H ^[2]		
methylcyclohexane	Inhalation (mouse) LC50: 41.5 mg/L/2h ^[2]		
	Inhalation (rat) LC50: 3342 mg/l4 h ^[1]		
	Oral (rat) LD50: >6160 mg/kg ^[1]		
	TOXICITY	IRRITATION	
iso-butyl methacrylate	dermal (guinea pig) LD50: >17780 mg/kg ^[1] h		
	Oral (rat) LD50: 6400 mg/kg ^[2]		
Legend:	1. Value obtained from Europe ECHA Registered Substances - Ac extracted from RTECS - Register of Toxic Effect of chemical Subs		om manufacturer's msds unless otherwise specified data
LYRECO CORRECTION PEN 7ML DARK BLUE	No significant acute toxicological data identified in literature sea	arch.	
TITANIUM DIOXIDE	The material may produce moderate eye irritation leading to inflammation. * IUCLID		
ISO-BUTYL METHACRYLATE	The following information refers to contact allergens as a group and may not be specific to this product. Reproductive effector in rats		
Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	✓	Reproductivity	0
Serious Eye Damage/Irritation	0	STOT - Single Exposure	¥
Respiratory or Skin sensitisation	✓ s	TOT - Repeated Exposure	0
oonontouton			

седена:

Data required to make classification available
 Data available but does not fill the criteria for classification
 Data Not Available to make classification

CMR STATUS

Not Applicable

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
titanium dioxide	HIGH	HIGH
methylcyclohexane	LOW	LOW
iso-butyl methacrylate	LOW	LOW

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
titanium dioxide	LOW (BCF = 10)
methylcyclohexane	LOW (BCF = 321)
iso-butyl methacrylate	LOW (BCF = 61.9)

12.4. Mobility in soil

Ingredient	Mobility
titanium dioxide	LOW (KOC = 23.74)
methylcyclohexane	LOW (KOC = 268)
iso-butyl methacrylate	LOW (KOC = 53.31)

12.5.Results of PBT and vPvB assessment

	P	В	т
Relevant available data	Not Available	Not Available	Not Available
PBT and vPvB 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

Product / Packaging disposal	Recycle wherever possible or consult manufacturer for recycling options.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 TRANSPORT INFORMATION

Labels Required

	PLANDARIE 3
Marine Pollutant	
HAZCHEM	3YE
Land transport (ADR)	
14.1. UN number	2296
14.2. Packing group	I
14.3. UN proper shipping	METHYLCYCLOHEXANE

name METHYLCYCLOHEXANE

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LYRECO CORRECTION PEN 7ML DARK BLUE

14.4. Environmental hazard	No relevant data
14.5. Transport hazard class(es)	Class 3 Subrisk Not Applicable
14.6. Special precautions for user	Special provisions Not Applicable Limited quantity 1 L

Air transport (ICAO-IATA / DGR)

14.1. UN number	2296			
14.2. Packing group	П			
14.3. UN proper shipping name	Methylcyclohexane			
14.4. Environmental hazard	No relevant data			
14.5. Transport hazard class(es)	ICAO/IATA Class 3 ICAO / IATA Subrisk Not Applicable ERG Code 3H			
	Special provisions	Not Applicable		
	Cargo Only Packing Instructions	364		
	Cargo Only Maximum Qty / Pack	60 L		
14.6. Special precautions for user	Passenger and Cargo Packing Instructions	353		
	Passenger and Cargo Maximum Qty / Pack	5L		
	Passenger and Cargo Limited Quantity Packing Instructions	Y341		
	Passenger and Cargo Limited Maximum Qty / Pack	1L		

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	2296		
14.2. Packing group	I		
14.3. UN proper shipping name	METHYLCYCLOHEXANE		
14.4. Environmental hazard	Not Applicable		
14.5. Transport hazard class(es)	IMDG Class 3 IMDG Subrisk Not Applicable		
14.6. Special precautions for user	EMS Number F-E, S-D Special provisions Not Applicable Limited Quantities 1 L		

Inland waterways transport (ADN)

14.1. UN number	2296
14.2. Packing group	П
14.3. UN proper shipping name	METHYLCYCLOHEXANE
14.4. Environmental hazard	No relevant data
14.5. Transport hazard class(es)	3 Not Applicable
14.6. Special precautions for user	Classification codeF1Limited quantity1 LEquipment requiredPP, EX, AFire cones number1

Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	titanium dioxide	Z
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	methylcyclohexane	Y

Ζ

IMO MARPOL 73/78 (Annex	
II) - List of Noxious Liquid	iso-butyl methacrylate
Substances Carried in Bulk	

SECTION 15 REGULATORY INFORMATION

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

titanium dioxide(13463-67-7) is found on the following regulatory lists	"European Customs Inventory of Chemical Substances ECICS (English)","International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "European Trade Union Confederation (ETUC) Priority List for REACH Authorisation", "EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "UK Workplace Exposure Limits (WELs)"
methylcyclohexane(108-87-2) is found on the following regulatory lists	"European Customs Inventory of Chemical Substances ECICS (English)","EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances","European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)","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 Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VII","European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31"
iso-butyl methacrylate(97-86-9) 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)","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 Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI", "European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31"

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable -: 67/548/EEC, 1999/45/EC, 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Regulation (EU) No 453/2010, Regulation (EC) No 1907/2006, Regulation (EC) No 1272/2008 and their amendments as well as the following British legislation: - The Control of Substances Hazardous to Health Regulations (COSHH) 2002 - COSHH Essentials - The Management of Health and Safety at Work Regulations 1999

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.

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier		
titanium dioxide	13463-67-7	Not Available	01-2119954396-27-XXXX, 01-2119489379-17-XXXX		
Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)			Pictograms Signal Word Code(s)	Hazard Statement Code(s)
2		Skin Irrit. 2, Eye Irrit. 2, Acute Tox. 4, STOT SE 3, Carc. 2, STOT RE 1, STOT SE 2, Carc. 1B, Aquatic Chronic 4		Wng, GHS08, Dgr	H315, H319, H332, H335, H302, H351, H372, H350, H412, H318, H312
1	Skin Irrit. 2, Eye Irrit. 2, Acute	Skin Irrit. 2, Eye Irrit. 2, Acute Tox. 4, STOT SE 3		GHS07, Wng	H315, H319, H332, H335
2	Skin Irrit. 2, Eye Irrit. 2, Acute	Skin Irrit. 2, Eye Irrit. 2, Acute Tox. 4, STOT SE 3		GHS07, Wng	H315, H319, H332, H335
1	Skin Irrit. 2, Eye Irrit. 2, Acute	Skin Irrit. 2, Eye Irrit. 2, Acute Tox. 4, STOT SE 3		GHS07, Wng	H315, H319, H332, H335
2	Skin Irrit. 2, Eye Irrit. 2, Acute	Skin Irrit. 2, Eye Irrit. 2, Acute Tox. 4, STOT SE 3			H315, H319, H332, H335
Harmonisation Code 1 = The most prevalent classification, Harmonisation Code 2 = The most severe classification.					

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification

Ingredient	CAS number	Index No	ECHA Dossier
methylcyclohexane	108-87-2	601-018-00-7	01-2119556887-18-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 2, Asp. Tox. 1, Skin Irrit. 2, STOT SE 3, Aquatic Chronic 2	GHS02, GHS09, GHS08, Dgr	H225, H304, H315, H336, H411
2	Flam. Liq. 2, Asp. Tox. 1, Skin Irrit. 2, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1, Eye Irrit. 2	GHS09, GHS08, Dgr, GHS01	H225, H304, H315, H336, H410, H319, H335, H400

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
iso-butyl methacrylate	97-86-9	607-113-00-X	01-2119488331-38-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, STOT SE 3, Aquatic Acute 1	GHS07, GHS02, GHS09, Wng	H226, H315, H317, H319, H335, H400
2	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, STOT SE 3, Aquatic Acute 1, Skin Sens. 1B	GHS07, GHS09, Wng, GHS01, Dgr	H226, H315, H317, H319, H335, H400, H336
Harmonication Code 1 - The r	nost provalant algoritization Harmonization Code 2 - The most powers algoritization		

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

SECTION 16 OTHER INFORMATION

Full text Risk and Hazard codes

H226	Flammable liquid and vapour
H302	Harmful if swallowed

H312	Harmful in contact with skin	
H318	Causes serious eye damage	
H319	Causes serious eye irritation	
H332	Harmful if inhaled	
H335	May cause respiratory irritation	
H350	May cause cancer	
H350i	May cause cancer by inhalation.	
H351	Suspected of causing cancer	
H372	Causes damage to organs through prolonged or repeated exposure	
H400	Very toxic to aquatic life	
H410	Very toxic to aquatic life with long lasting effects	
H412	Harmful to aquatic life with long lasting effects	
R10	Flammable.	
R36/37/38	Irritating to eyes, respiratory system and skin.	
R49	May cause CANCER by inhalation.	
R50	Very toxic to aquatic organisms.	

Other information

DSD / DPD label elements



Relevant risk statements are found in section 2.1

Indication(s) of danger F, Xn, N

SAFETY ADVICE	
S02	Keep out of reach of children.
S09	Keep container in a well ventilated place.
S13	Keep away from food, drink and animal feeding stuffs.
S16	Keep away from sources of ignition. No smoking.
\$23	Do not breathe gas/fumes/vapour/spray.
S29	Do not empty into drains.
S33	Take precautionary measures against static discharges.
S35	This material and its container must be disposed of in a safe way.
S36	Wear suitable protective clothing.
\$37	Wear suitable gloves.
S40	To clean the floor and all objects contaminated by this material, use water and detergent.
S41	In case of fire and/or explosion, DO NOT BREATHE FUMES.
S43	In case of fire use
S46	If swallowed, seek medical advice immediately and show this container or label.
S51	Use only in well ventilated areas.
S56	Dispose of this material and its container at hazardous or special waste collection point.
S57	Use appropriate container to avoid environmental contamination.
S61	Avoid release to the environment. Refer to special instructions/Safety data sheets.
S64	If swallowed, rinse mouth with water (only if the person is conscious).

Ingredients with multiple cas numbers

Name	CAS No
titanium dioxide	100292-32-8, 101239-53-6, 116788-85-3, 12000-59-8, 12188-41-9, 12701-76-7, 12767-65-6, 12789-63-8, 1309-63-3, 1317-70-0, 1317-80-2, 1344-29-2, 13463-67-7, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1, 195740-11-5, 221548-98-7, 224963-00-2, 246178-32-5, 252962-41-7, 37230-92-5, 37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7, 416845-43-7, 494848-07-6, 494848-23-6, 494851-77-3, 494851-98-8, 55068-84-3, 55068-85-4, 552316-51-5, 62338-64-1, 767341-00-4, 97929-50-5, 98084-96-9

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references

The (M)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.

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

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