

3046997 Lyreco Correction Pen 7ml Dark Blue

Lyreco Group (Lyreco France)

Chemwatch Hazard Alert Code: 3

Chemwatch: 4854-68
Version No: 3.1.1.1
Safety Data Sheet (Conforms to Regulations (EC) No 453/2010)

Issue Date: 02/05/2015
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	3046997 Lyreco Correction Pen 7ml Dark Blue
Synonyms	Product Code: 304699
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

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	1	
Body Contact	2	
Reactivity	1	
Chronic	3	

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

DSD classification	In case of mixtures, classification has been prepared by following DPD (Directive 1999/45/EC) and CLP Regulation (EC) No 1272/2008 regulations
DPD classification [1]	R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R38 Irritating to skin.
	R49 May cause CANCER by inhalation.
	R67 Vapours may cause drowsiness and dizziness.
	R65 HARMFUL-May cause lung damage if swallowed.
	R43 May cause SENSITISATION by skin contact.
R11 Highly flammable.	
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 VI
Classification according to regulation (EC) No 1272/2008 [CLP] [1]	Flammable Liquid Category 2, Skin Corrosion/Irritation Category 2, Skin Sensitizer Category 1, Carcinogen Category 1A, STOT - SE (Narcosis) Category 3, Aspiration Hazard Category 1, Chronic Aquatic Hazard Category 2

Continued...

3046997 Lyreco Correction Pen 7ml Dark Blue

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 VI

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
H350i	May cause cancer by inhalation.
H336	May cause drowsiness or dizziness
H304	May be fatal if swallowed and enters airways
H411	Toxic to aquatic life with long lasting effects

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P101	If medical advice is needed, have product container or label at hand.
P201	Obtain special instructions before use.

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider
-----------	---

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.
-----------	--

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
------	--

2.3. Other hazards

	Inhalation and/or ingestion may produce health damage*.
	May produce discomfort of the eyes and respiratory tract*.
	Cumulative effects may result following exposure*.
	Possible respiratory sensitizer*.
	Repeated exposure potentially causes skin dryness and cracking*.

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 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]

3046997 Lyreco Correction Pen 7ml Dark Blue

1.97-86-9 2.202-613-0 3.607-113-00-X 4.01-2119488331-38-XXXX	5-10	iso-butyl 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:	1. Classified by Chemwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I; 3. Classification drawn from EC Directive 1272/2008 - Annex VI 4. Classification drawn from C&L			

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

General	<ul style="list-style-type: none"> ▶ 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 vomiting. ▶ 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. ▶ 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. <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ 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. <p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ 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.
Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ 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	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ 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.
Inhalation	<ul style="list-style-type: none"> ▶ 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. ▶ 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.
Ingestion	<ul style="list-style-type: none"> ▶ 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 vomiting. ▶ 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.

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. [Ellenhorn 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

5.1. Extinguishing media

Continued...

	▶ Foam.
--	---------

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.
----------------------	---

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 precautions

	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 sections

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

SECTION 7 HANDLING AND STORAGE**7.1. Precautions for safe handling**

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 storage, including any incompatibilities

Suitable container	▶ Packing as supplied by manufacturer.
---------------------------	--

Storage incompatibility	▶ Avoid reaction with oxidising agents ▶ Avoid strong acids, bases.
--------------------------------	--

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

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
UK Workplace Exposure Limits (WELs)	titanium dioxide	Titanium dioxide total inhalable / Titanium dioxide respirable	10 mg/m ³ / 4 mg/m ³	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/m ³	10 mg/m ³	10 mg/m ³
methylcyclohexane	Methylcyclohexane	400 ppm	400 ppm	10000 ppm

Ingredient	Original IDLH	Revised IDLH
titanium dioxide	N.E. / N.E.	5,000 mg/m ³
methylcyclohexane	10,000 ppm	1,200 [LEL] ppm

Continued...

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:

3046997 Lyreco Correction Pen 7ml Dark Blue Not Available

Material	CPI

* 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.

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

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

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	Dark blue 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)	99-102	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	-2.5 (CC)	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

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.
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.

3046997 Lyreco Correction Pen 7ml Dark Blue	TOXICITY	IRRITATION
	Not Available	Not Available
titanium dioxide	TOXICITY	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]	
	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]	
methylcyclohexane	TOXICITY	IRRITATION
	dermal (rat) LD50: >=3080 mg/kg ^[1]	Not Available
	Inhalation (mouse) LC50: 36.9 mg/L/2H ^[2]	
	Inhalation (mouse) LC50: 41.5 mg/L/2h ^[2]	
	Inhalation (rat) LC50: 3342 mg/l4 h ^[1]	
	Oral (rat) LD50: >6160 mg/kg ^[1]	
iso-butyl methacrylate	TOXICITY	IRRITATION
	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 - Acute toxicity 2. Value obtained from manufacturer's msds unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

3046997 Lyreco Correction Pen 7ml Dark Blue	No significant acute toxicological data identified in literature search.
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	☹	Carcinogenicity	✔
Skin Irritation/Corrosion	✔	Reproductivity	☹
Serious Eye Damage/Irritation	☹	STOT - Single Exposure	✔
Respiratory or Skin sensitisation	✔	STOT - Repeated Exposure	☹
Mutagenicity	☹	Aspiration Hazard	✔

Legend: ▼ - 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	B	T
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**

	
Marine Pollutant	
HAZCHEM	3YE

Land transport (ADR)

14.1. UN number	2296
14.2. Packing group	II
14.3. UN proper shipping name	METHYLCYCLOHEXANE

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	II	
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
14.6. Special precautions for user	Special provisions	Not Applicable
	Cargo Only Packing Instructions	364
	Cargo Only Maximum Qty / Pack	60 L
	Passenger and Cargo Packing Instructions	353
	Passenger and Cargo Maximum Qty / Pack	5 L
	Passenger and Cargo Limited Quantity Packing Instructions	Y341
	Passenger and Cargo Limited Maximum Qty / Pack	1 L

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	2296	
14.2. Packing group	II	
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	II	
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 code	F1
	Limited quantity	1 L
	Equipment required	PP, EX, A
	Fire cones number	1

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

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

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 VI", "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 Tox. 4, STOT SE 3	GHS07, Wng	H315, H319, H332, H335
2	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 Tox. 4, STOT SE 3	GHS07, Wng	H315, H319, H332, H335
2	Skin Irrit. 2, Eye Irrit. 2, Acute Tox. 4, STOT SE 3	GHS07, Wng	H315, H319, H332, H335

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

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
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.
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, N, T, Xi
-------------------------	-------------

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.
S21	When using do not smoke.
S23	Do not breathe gas/fumes/vapour/spray.
S24	Avoid contact with skin.
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.
S37	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.
S52	Not recommended for interior use on large surface areas.
S53	Avoid exposure - obtain special instructions before use.
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.

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

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.