Lyreco Group (Lyreco France)

Chemwatch: **4854-59** Version No: **2.1.1.1** Safety Data Sheet (Conforms to Regulation

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

Chemwatch Hazard Alert Code: 3

Issue Date: 06/04/2013 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	993487 Lyreco Whiteboard Marker C/Tip Blue
Synonyms	Not Available
Proper shipping name	PAINT or PAINT RELATED MATERIAL
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	Whiteboard marker. 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	2		0 = Minimum
Body Contact	2		1 = Low 2 = Moderate
Reactivity	1		3 = High
Chronic	2		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]	R67Vapours may cause drowsiness and dizziness.R11Highly 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, STOT - SE (Narcosis) Category 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	

CLP label elements		
SIGNAL WORD	DANGER	
Hazard statement(s)		
H225	Highly flammable liquid and vapour	
H336	May cause drowsiness or dizziness	
Supplementary statement(s		
Not Applicable		
Precautionary statement(s)	Prevention	
P101	If medical advice is needed, have product container or label at hand.	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
Precautionary statement(s)	Response	
P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam for extinction.	
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, skin contact and/or ingestion may produce health damage*.	
	May produce discomfort of the eyes, respiratory tract and skin*.	
	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 directive 67/548/EEC [DSD]	Classification according to regulation (EC) No 1272/2008 [CLP]
1.64-17-5 2.200-578-6 3.603-002-00-5 4.01-2119457610-43-XXXX	>50	ethanol	R11 ^[2]	Flam. Liq. 2; H225 ^[3]
1.107-98-2 2.203-539-1, 215-306-1, 216-455-5 3.603-064-00-3, 603-106-00-0 4.01-2119457435-35-XXXX	10-25	propylene glycol monomethyl ether - alpha isomer	R10, R67, R61, R37/38, R41 ^[2]	Flam. Liq. 3, STOT SE 3, Flam. Liq. 3, Repr. 1B, STOT SE 3, Skin Irrit. 2, Eye Dam. 1; H226, H336, H360D ***, H335, H315, H318 ^[3]
1.67-63-0 2.200-661-7 3.603-117-00-0 4.01-2119457558-25-XXXX	2.5-10	isopropanol	R11, R36, R67 ^[2]	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225, H319, H336 ^[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	 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 casuality can comfortably drink. Seek medical advice. 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. 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.
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.
Inhalation	 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	 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. Seek medical advice.

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

Low notions down. Koon worm and rooted

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).
- Give 50% dextrose (50-100 ml) IV to obtunded patients following blood draw for glucose determination.
- 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.

SECTION 5 FIREFIGHTING MEASURES

5.1. Extinguishing media

Alcohol stable 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

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

	0
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.		 Packing as supplied by manufacturer.
	Storage incompatibility	Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates.

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)	ethanol	Ethanol	1920 mg/m3 / 1000 ppm	Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs)	propylene glycol monomethyl ether - alpha isomer	1-Methoxypropan-2-ol	375 mg/m3 / 100 ppm	560 mg/m3 / 150 ppm	Not Available	Sk
European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (English)	propylene glycol monomethyl ether - alpha isomer	1-Methoxypropanol-2	375 mg/m3 / 100 ppm	568 mg/m3 / 150 ppm	Not Available	Skin
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)	propylene glycol monomethyl ether - alpha isomer	1-Methoxypropan-2-ol	375 mg/m3 / 100 ppm	568 mg/m3 / 150 ppm	Not Available	Skin
UK Workplace Exposure Limits (WELs)	isopropanol	Propan-2-ol	999 mg/m3 / 400 ppm	1250 mg/m3 / 500 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name		TEEL-1	TEEL-2	TEEL-3
ethanol	anol Ethyl alcohol; (Ethanol) N		Not Available	Not Available	Not Available
propylene glycol monomethyl ether - alpha isomer Propylene glycol monomethyl ether; (Ucar Triol HG-170)		150 ppm	150 ppm	470 ppm	
isopropanol	opropanol Isopropyl alcohol		400 ppm	400 ppm	12000 ppm
Ingredient Original IDLH Revised IDLH					
ethanol	15,000 ppm	3,300 [LEL] ppm			
propylene glycol monomethyl ether - alpha isomer	Not Available	Not Available 2,000 [LEL] ppm			
isopropanol	12,000 ppm				

8.2. Exposure controls

engineering controls	
8.2.2. Personal protection	

8.2.1. Appropriate Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.



Eye and face protection

Safety glasses with side shields.

Issue Date: 06/04/2013 Print Date: 02/19/2015

993487 Lyreco Whiteboard Marker C/Tip Blue

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 computergenerated selection:

993487 Lyreco Whiteboard Marker C/Tip Blue

Material	CPI
NEOPRENE	A
NITRILE	В
PVC	В

* 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.

Appearance Blue highly flammable liquid with a characteristic odour; mixes with water.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Respiratory protection

Type A 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 5 x ES	A-AUS / Class 1	-	A-PAPR-AUS / Class 1
up to 25 x ES	Air-line*	A-2	A-PAPR-2
up to 50 x ES	-	A-3	-
50+ x ES	-	Air-line**	-

* - Continuous-flow; ** - Continuous-flow or positive pressure demand

^ - 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)

Physical state	Liquid	Relative density (Water = 1)	0.860
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	287 (ignition temp.)
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	8 @ 20C
Initial boiling point and boiling range (°C)	78	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	13	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	15.0	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.7	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	5.9	Gas group	Not Available
Solubility in water (g/L)	Miscible	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 10.6. Hazardous decomposition products See section 7.2

See section 5.3

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Ingestion Skin Contact Eye Chronic	Skin contact with the material may damage the health of the in					
Eye		dividual: systemic affects may recult	Accidental ingestion of the material may be damaging to the health of the individual.			
		Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.				
Chronic	This material can cause eye irritation and damage in some persons.					
	Substance accumulation, in the human body, may occur and m	hay cause some concern following re	epeated or long-term occupational exposure.			
93487 Lyreco Whiteboard	TOXICITY	IRRITATION				
Marker C/Tip Blue	Not Available	Not Available				
	TOXICITY	IRRITATION				
	Dermal (rabbit) LD50: 17100 mg/kg ^[1]	Eye (rabbit): 50	0 mg SEVERE			
ethanol	Inhalation (rat) LC50: 64000 ppm/4h ^[2]	Eye (rabbit):100	0mg/24hr-moderate			
	Oral (rat) LD50: >11872769 mg/kg ^[1]	Skin (rabbit):20	mg/24hr-moderate			
		Skin (rabbit):40	0 mg (open)-mild			
	TOXICITY	IRRITATION				
www.dowe.sturet	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit) 23	0 mg mild			
propylene glycol monomethyl ether - alpha	Inhalation (rat) LC50: 10000 ppm/5 h.d ^[2]	Eye (rabbit) 500) mg/24 h.			
isomer	Oral (rat) LD50: 5207.2 mg/kg ^[1]	Eye (rabbit): 10	0 mg SEVERE			
		Skin (rabbit) 50	0 mg open - mild			
	TOXICITY	IRRITATION				
	Dermal (rabbit) LD50: 12792 mg/kg ^[1]	Eye (rabbit): 10	mg - moderate			
isopropanol	Inhalation (rat) LC50: 72.6 mg/L/4h ^[2]	Eye (rabbit): 10	0 mg - SEVERE			
	Oral (rat) LD50: 5000 mg/kg ^[2]	Eye (rabbit): 10	0mg/24hr-moderate			
		Skin (rabbit): 50	00 mg - mild			
Legend:	1. Value obtained from Europe ECHA Registered Substances extracted from RTECS - Register of Toxic Effect of chemical S		om manufacturer's msds unless otherwise specified data			
93487 Lyreco Whiteboard Marker C/Tip Blue	No significant acute toxicological data identified in literature	e search.				
ETHANOL	The material may cause skin irritation after prolonged or rep scaling and thickening of the skin.	peated exposure and may produce o	n contact skin redness, swelling, the production of vesic			
PROPYLENE GLYCOL MONOMETHYL ETHER - ALPHA ISOMER	NOTE: For PGE - mixed isomers: Exposure of pregnant rats and rabbits to the substance did not give rise to teratogenic effects at concentrations up to 3000 ppm.					
ISOPROPANOL						
Acute Toxicity	0	Carcinogenicity	0			
Skin Irritation/Corrosion	0	Reproductivity	0			
Serious Eye Damage/Irritation	0	STOT - Single Exposure	*			
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0			
Mutagenicity	0	Aspiration Hazard	0			

S – Data Not Available to make classification

CMR STATUS

 SKIN
 propylene glycol monomethyl ether - alpha isomer
 European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) -Skin
 Skin

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ethanol	LOW (Half-life = 2.17 days)	LOW (Half-life = 5.08 days)
propylene glycol monomethyl ether - alpha isomer	LOW (Half-life = 56 days)	LOW (Half-life = 1.7 days)
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
ethanol	LOW (LogKOW = -0.31)
propylene glycol monomethyl ether - alpha isomer	LOW (BCF = 2)
isopropanol	LOW (LogKOW = 0.05)

12.4. Mobility in soil

Ingredient	Mobility
ethanol	HIGH (KOC = 1)
propylene glycol monomethyl ether - alpha isomer	HIGH (KOC = 1)
isopropanol	HIGH (KOC = 1.06)

12.5.Results of PBT and vPvB assessment

	Р	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

	FLAMA BUE			
Marine Pollutant	NO			
HAZCHEM	•3YE			
Land transport (ADR)				
14.1. UN number	1263			
14.2. Packing group	I			
14.3. UN proper shipping name	PAINT or PAINT RELATED MATERIAL			
14.4. Environmental hazard	No relevant data			
14.5. Transport hazard class(es)	Class 3 Subrisk Not Applicable			

Issue Date: 06/04/2013 Print Date: 02/19/2015

993487 Lyreco Whiteboard Marker C/Tip Blue

 14.6. Special precautions for user
 Special provisions
 163 640C 640D 650

 Limited quantity
 5 L

Air transport (ICAO-IATA / DGR)

14.1. UN number	1263			
14.2. Packing group				
14.3. UN proper shipping name	Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base); Paint related material (including paint thinning or reducing compounds)			
14.4. Environmental hazard	No relevant data			
14.5. Transport hazard class(es)	ICAO/IATA Class 3 ICAO / IATA Subrisk Not Applicable ERG Code 3L			
	Special provisions	A3 A72 A192		
	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	1263			
14.2. Packing group	II Contraction of the second			
14.3. UN proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)			
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 NumberF-E , S-ESpecial provisions163Limited Quantities5 L			

Inland waterways transport (ADN)

14.1. UN number	1263		
14.2. Packing group	I		
14.3. UN proper shipping name	PAINT or PAINT RELATED MATERIAL		
14.4. Environmental hazard	No relevant data		
14.5. Transport hazard class(es)	3 Not Applicable		
14.6. Special precautions for user	Classification codeF1Limited quantity5 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	propylene glycol monomethyl ether - alpha isomer	Z

SECTION 15 REGULATORY INFORMATION

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

propylene glycol monomethyl ether - alpha isomer(107-98-2) is found on the following regulatory lists	"EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Lithuanian)", "European Customs Inventory of Chemical Substances ECICS (English)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Lithuanian)", "European Customs Occupational Exposure Limit Values (IOELVs) (Lithuanian)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Stovenian)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Stovenian)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Swedish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Swedish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Danish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Danish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Danish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Danish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Danish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (English)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (English)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Lativan)", "UK Workplace Exposure Limits (WELs)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (German)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (German)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (German)", "European Union (EU) First List of Indicati
isopropanol(67-63-0) 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", "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", "UK Workplace Exposure Limits (WELs)", "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		
ethanol	64-17-5	603-002-00-5		01-2119457610-43-XXXX		
Hormonication (CS)			Dista			
Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	ategory Code(s)		grams Signal Word (s)	Hazard Statement Code(s)	
1	Flam. Liq. 2		GHS02, Dgr		H225	
2	Flam. Liq. 2, Eye Irrit. 2, STOT RE 1, Muta. 1B, Repr. 1A, Acute Tox. 3, STOT SE 1, Met. Corr. 1, Skin Corr. 1B, Aquatic Acute 1, Aquatic Chronic 1		Dgr, GHS01, GHS08, Wng, GHS06, GHS05		H225, H319, H340, H304, H372, H315, H220, H360, H301, H311, H331, H370	
1	Carc. 2		GHS08, Wng		H351	
2	Carc. 2		GHS08, Wng		H351	

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

Ingredient	CAS number	Index No		ECHA Dossier		
propylene glycol monomethyl ether - alpha isomer	107-98-2	603-064-00-3, 603-106-00-0		01-2119457435-35-XXXX		
Harmonisation (C&L Inventory)	Hazard Class and Category Coc	Category Code(s)		inal Word	Hazard Statement Code(s)	
1	Flam. Liq. 3, STOT SE 3, Skin Irrit. 2, Eye Dam. 1, Repr. 1B		GHS07, GHS02 GHS08, Dgr	Wng, GHS05,	H226, H336, H315, H318, H335, H360	
2	Flam. Liq. 3, STOT SE 3, STOT RE 2, Repr. 1B, Acute Tox. 4, Eye Irrit. 2, Flam. Liq. 2, Skin Irrit. 2, Eye Dam. 1		GHS02, Wng, G GHS03, GHS05	, 0,	H371, H360, H225, H226, H315, H318, H370	
Harmonisation Code 1 = The me	ost prevalent classification. Harmonisat	tion Code 2 = The most severe classification.				

Ingredient	CAS number	Index No	ECHA Dossier
isopropanol	67-63-0	603-117-00-0	01-2119457558-25-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3	GHS07, GHS02, Dgr	H225, H319, H336
2	Flam. Liq. 2, Eye Irrit. 2, STOT SE 1, Eye Irrit. 2A, Repr. 2, STOT RE 2	GHS02, Dgr, GHS08, GHS03	H225, H319, H370, H312, H340, H302, H361, H373

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

SECTION 16 OTHER INFORMATION

Full text Risk and Hazard codes

H220Externely flammable gasI A PriceFlammable liquid and vapourI A PriceToxic if swallowedI A PriceMarkel if swallowedI A PriceMay be fatal if swallowed and enters airwaysI A PriceToxic in contact with skinI A PriceMarkel in contact with skinI A PriceSaces scious eye damageI A PriceSaces scious eye irritationI A Subse scious eye irritationSaces active eye irritationI A Subse scious eye irritationSaces active eye irritationI A Subse damage fertility or the unborn childSaces active eye irritationI A Subse damage to organsSaces active exe pouse modelI A Subse damage to organsSaces active exe pouse modelI A Subse damage to organs through prolonged or repeated exposure
H901Toxic if swallowedH902Hamful if swallowed and enters ainwaysH904May be fatal if swallowed and enters ainwaysH904Toxic in contact with skinH904Toxic in contact with skinH904Hamful in contact with skinH904Causes skin irritationH904Causes serious eye damageH904Causes serious eye irritationH904Causes serious eye irritationH904May cause respiratory irritationH904May cause respiratory irritationH904May cause respiratory irritationH904May cause genetic defectsH905May cause genetic defectsH906May damage fertility or the unborn childH906Suspected of causing cancerH907Suspected of damaging fertility or the unborn childH906Suspected of damaging fertility or the unborn childH907Suspected of damaging fertility or the unborn childH907Suspected of gamage to organsH907Suspected organsH907Gauses damage to organsH907Suspected organs through prolonged or repeated exposure
Harrful if swallowedHarrful if swallowed and enters airwaysMay be fatal if swallowed and enters airwaysToxic in contact with skinToxic in contact with skinHarrful in contact with skinCauses skin irritationCauses serious eye damageCauses serious eye irritationCauses serious eye irritationToxic if inhaledNay cause respiratory irritationMay cause respiratory irritationMay cause genetic defectsMay cause genetic defectsMay damage fertility or the unborn childMay damage to rigansMay cause damage to organsMay cause damage to organs through prolonged or repeated exposure
H304May be fatal if swallowed and enters ainwaysH311Toxic in contact with skinH312Harmful in contact with skinH313Causes skin irritationH314Causes skin irritationH315Causes serious eye damageH316Causes serious eye irritationH317Causes serious eye irritationH318Causes serious eye irritationH319Causes serious eye irritationH311Toxic if inhaledH312May cause genetic defectsH314May cause genetic defectsH315Suspected of causing cancerH316May damage fertility or the unborn childH3160May damage fertility or the unborn childH3160Suspected of damaging fertility or the unborn childH3160Suspected or gansH317May cause damage to organsH318Causes damage to organs through prolonged or repeated exposure
H911Toxic in contact with skinH912Harmful in contact with skinH913Gauses skin irritationH914Causes serious eye damageH919Causes serious eye irritationH919Causes serious eye irritationH911Toxic if inhaledH913Toxic if inhaledH914May cause respiratory irritationH915Suspected of causing cancerH916May damage the unborn childH916Suspected of damaging fertility or the unborn childH916Suspected of damaging fertility or the unborn childH916Suspected of damaging fertility or the unborn childH917Gauses damage to organsH917May cause damage to organs through prolonged or repeated exposure
Harmful in contact with skinGauses skin irritationCauses skin irritationCauses serious eye damageCauses serious eye irritationCauses serious eye irritationCauses serious eye irritationToxic fi inhaledMay cause respiratory irritationMay cause genetic defectsMay cause genetic defectsMay damage fertility or the unborn childMay damage the unborn childSuspected of damaging fertility or the unborn childMay damage to organsMay cause damage to organs through prolonged or repeated exposure
H315Causes skin irritationH316Causes serious eye damageH317Causes serious eye irritationH318Causes serious eye irritationH319Toxic if inhaledH310May cause respiratory irritationH310May cause genetic defectsH311Suspected of causing cancerH312May damage fertility or the unborn childH313Suspected of damaging fertility or the unborn childH314Suspected of damaging fertility or the unborn childH315Suspected of damaging fertility or the unborn childH316Suspected of damaging fertility or the unborn childH317Suspected of gansH318May cause damage to organsH319Suspected organsH311Suspected organs through prolonged or repeated exposure
H318Causes serious eye damageGauses serious eye irritationCauses serious eye irritationH331Toxic if inhaledH333May cause respiratory irritationH340May cause genetic defectsH351Suspected of causing cancerH360May damage fertility or the unborn childH360D***Suspected of damaging fertility or the unborn childH360D***Suspected of damaging fertility or the unborn childH360D***Suspected of gansH371May cause damage to organsH372Causes damage to organs through prolonged or repeated exposure
H319Causes serious eye irritationH311Causes serious eye irritationH313May cause respiratory irritationH314May cause genetic defectsH315Suspected of causing cancerH3160May damage fertility or the unborn childH3160May damage the unborn child.H3160Suspected of damaging fertility or the unborn childH3160Suspected of damaging fertility or the unborn childH3171Suspected or gansH3172Causes damage to organsH3173May cause damage to organs through prolonged or repeated exposure
H331Toxic if inhaledH332May cause respiratory irritationH334May cause genetic defectsH340May cause genetic defectsH351Suspected of causing cancerH360May damage fertility or the unborn childH360D***May damage the unborn childH360D***Suspected of damaging fertility or the unborn childH360D***Suspected of damage to organsH371May cause damage to organsH372Causes damage to organs through prolonged or repeated exposure
H335May cause respiratory irritationH340May cause genetic defectsH351Suspected of causing cancerH360May damage fertility or the unborn childH360D***May damage the unborn childH360D***Suspected of damaging fertility or the unborn childH360D***Suspected of damaging fertility or the unborn childH360D***May cause damage to organsH370Causes damage to organsH371May cause damage to organs through prolonged or repeated exposure
H340May cause genetic defectsH351Suspected of causing cancerH360May damage fertility or the unborn childH360D***May damage the unborn child.H360D***Suspected of damaging fertility or the unborn childH360D***Suspected of damaging fertility or the unborn childH360D***May damage the unborn child.H360D***Suspected of damaging fertility or the unborn childH360D***Suspected of damaging fertility or the unborn childH360D***Suspected of damaging fertility or the unborn childH370Causes damage to organsH371May cause damage to organsH372Causes damage to organs through prolonged or repeated exposure
H351Suspected of causing cancerH360May damage fertility or the unborn childH360D***May damage the unborn child.H361Suspected of damaging fertility or the unborn childH361Suspected of damaging fertility or the unborn childH370Causes damage to organsH371May cause damage to organs through prolonged or repeated exposure
H360 May damage fertility or the unborn child H360D*** May damage the unborn child. H361 Suspected of damaging fertility or the unborn child H370 Causes damage to organs H371 May cause damage to organs H372 Causes damage to organs through prolonged or repeated exposure
H360D*** May damage the unborn child. H361 Suspected of damaging fertility or the unborn child Causes damage to organs Causes damage to organs H371 May cause damage to organs H372 Causes damage to organs through prolonged or repeated exposure
H361 Suspected of damaging fertility or the unborn child L111 Causes damage to organs L111 May cause damage to organs L111 Causes damage to organs through prolonged or repeated exposure
H370 Causes damage to organs H371 May cause damage to organs H372 Causes damage to organs through prolonged or repeated exposure
H371 May cause damage to organs H372 Causes damage to organs through prolonged or repeated exposure
H372 Causes damage to organs through prolonged or repeated exposure
H373 May cause damage to organs through prolonged or repeated exposure
R10 Flammable.
R36 Irritating to eyes.
R37/38 Irritating to respiratory system and skin.
R41 Risk of serious damage to eyes.
R61 May cause harm to the unborn child.

Other information

DSD / DPD label elements



Relevant risk statements are found in section 2.1

Indication(s) of danger	F
SAFETY ADVICE	

S02	Keep out of reach of children.
S09	Keep container in a well ventilated place.
S16	Keep away from sources of ignition. No smoking.
\$23	Do not breathe gas/fumes/vapour/spray.
S29	Do not empty into drains.
\$33	Take precautionary measures against static discharges.
S41	In case of fire and/or explosion, DO NOT BREATHE FUMES.
S43	In case of fire use
S51	Use only in well ventilated areas.
S56	Dispose of this material and its container at hazardous or special waste collection point.

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chernwatch 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.