SAFETY DATA SHEET

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

Name: LIMBCRYL LAMINATION RESIN 80:20

Product code: LCLR

Company/undertaking identification:

Registered company name: LimbTex Ltd.

Address: Unit 1, Elizabeth Business Park, Tigers Close, South Wigston, Leicester, LE18 4WS.

Telephone: 0044 (0) 116 2785440 Fax: 0044 (0) 116 2780227

info@limbtex.com

Emergency telephone: 0044 (0) 116 2785440

Use of the substance/preparation:

Acrylic resin to laminate.

2 - HAZARDS IDENTIFICATION

This product is classed: Highly flammable liquid.

Possibility of irritation by inhalation and skin.

Possibility of skin sensitisation. The preparation may also irritate the skin and prolonged contact may aggravate this effect.

Preparation classification:

Irritant

Highly flammable

R 43 May cause sensitisation by skin contact.

R 37/38 Irritating to respiratory system and skin.

R 11 Highly flammable.

Other data:

This product is dangerous in the event of spreading or if the liquid releases from the vapors. Flammable mixtures can be formed in the atmosphere at a temperature equal or higher than the flash point.

Polymerization is exothermic and is likely to degenerate into a not controlled reaction.

3 - COMPOSITION/INFORMATION ON INGREDIENTS

Full text of risk phrases appearing in section 3: see section 16.

Hazardous substances present on their own:

(present in the preparation at a sufficient concentration to give it the toxicological characteristics it would have in a 100% pure state)

INDEX	CAS	EC	Name	Symb.	R:	%
607-035-00-6	80-62-6	201-297-1	METHYL METHACRYLATE	XiF	Xi; R37/38 R43 Note(s): D	50 <= x % < 100

Other substances representing a hazard:

No known substance in this category present.

Substances present at a concentration below the minimum danger threshold:

INDEX	CAS	EC	Name	Symb.	R:	%
COP002	109-17-1	203-653-1	TETRAETHYLENE GLYCOL DIMETHACRYLATE	Xi	Xi;R36/38	2.5 <= x % < 10

Other substances with occupational exposure limits:

No known substance in this category present.

4 - FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing in an unconscious person.

In the event of exposure by inhalation:

If a large quantity is inhaled, move the patient into the fresh air and keep him/her warm and still.

If breathing irregular or is stopped, to practise the artificial respiration and to call upon a doctor.

If the person is unconscious, to place in side position of safety and to call a ambulance.

In the event of splashes or contact with eyes:

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

Refer the patient to an ophthalmologist, in particular if there is any redness, pain or visual impairment.

In the event of splashes or contact with skin:

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

DO NOT use solvents or thinners.

Clothing will be re-used only after cleaning.

If an irritation appears or if the contamination is extended or prolonged, consult a doctor.

In the event of swallowing:

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep still. DO NOT induce vomiting.

If swallowed accidentally, call a doctor to assess the need for monitoring and subsequent treatment in hospital. Show him the label.

Information for the doctor:

Symptomatic treatment is advised.

5 - FIRE-FIGHTING MEASURES

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

Suitable extinguishing media:

In the event of fire, use specifically suitable extinguishing agents. Never use water.

The carbon dioxide, powders and foams chemical.

Extinguishing media which must not be used for safety reasons:

Sometimes, and due to the presence of organic material, a fire may produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Do not use water.

Special protective equipment for fire-fighters:

Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

Limit the spreading of the fluids of extinction.

The containers close to fire must be moved away or cooled with water.

Possibly, and because of the presence of organic matters, a fire could produce a thick black smoke. The exposure to the products of decomposition could involve health risks.

Not to breathe the fumes.

6 - ACCIDENTAL RELEASE MEASURES

Personal precautions:

On account of the organic solvents contained in the preparation, eliminate sources of ignition and ventilate the premises.

Avoid inhaling the vapors.

Consult the safety measures listed under headings 7 and 8.

If the widespread quantities are important, to evacuate the personnel while utilizing only trained operators provided with protection equipements.

Environmental precautions:

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

Use drums to dispose of waste recovered in accordance with applicable regulations (see heading 13).

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Methods for cleaning up:

Clean preferably with a detergent, do not use solvents.

To contain and collect the leakages with noncombustible materials absorbing (for example of sand, ground, vermiculite or ground of diatoms) in barrels for the waste disposal, according to regulations' in force.

7 - HANDLING AND STORAGE

The regulations relating to storage premises apply to workshops where the product is handled.

Anyone with a history of skin sensitisation must on no account handle such products

Handling:

Handle in well-ventilated areas.

The vapors are denser than air. They can spread along the ground and form explosive mixtures with air

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

The transfer will be done by gravity or pump. One will proscribe the transfers by pressure of air.

Fire prevention:

Use the product in premises where there are no naked flames or other sources of ignition and have protected electrical equipment

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

Recommended equipment and procedures:

For personal safety, see §8.

Observe precautions stated on label and also industrial safety regulations

Packages which have been opened must be reclosed carefully and stored in an upright position

Avoid inhaling vapors.

Avoid contact of product with the skin and eyes

Started packing must be closed again carefully and preserved in driving position.

Prohibited equipment and procedures:

Smoking, eating and drinking are prohibited in premises where the preparation is used

Never open the packages under pressure

It is recommended not to carry contact lenses.

Keep the container tightly closed in a dry, well-ventilated place

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

To preserve at the variation of food and drinks, including those for animals.

To preserve only in the container of origin at a temperature not exceeding 30°C.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Use personal protection equipment as per Directive 89/686/EEC.

Anyone with a history of skin sensitisation must on no account handle such products.

Technical measures:

Ensure adequate ventilation, if possible with extractor fans at work posts and appropriate general extraction.

If this ventilation is insufficient to maintain the concentration of solvent vapors below the exposure limits, wear breathing apparatus

Maintain the buildings and the working stations in a perfect state of cleanliness, to frequently clean them.

To observe a very strict personal hygiene.

Ensure a good ventilation and a correct extraction the level of the working area. Recommended explosion protected ventilation.

Exposure limit values per INRS ED 984:

France	VME-ppm:	VME-mg/m3:	VLE-ppm:	VLE-mg/m3:	Notes:	TMP N°:
80-62-6	100	410	200	820	-	82
Germany	Class:	MAK-ppm:	MAK-mg/m3:	Notes:	Notes:	
80-62-6	I	50	210	C.Sens		
ACGIH(TLV)	TWA-ppm:	TWA-mg/m3:	STEL-ppm:	STEL-mg/m3:	Notes:	Notes:
80-62-6	100	410	-	-	A4	-

Exposure limit values (2003-2006):

Switzerland	VME-mg/m3:	VME-ppm:	VLE-mg/m3:	VLE-ppm:	Temps:	RSB:
80-62-6	210 mg/m3	50 ppm	420 mg/m3	100 ppm	4x15	S
Canada-Quebec	TWA:	STEL:	Ceiling:	Definition:	Criterions:	
80-62-6	100 ppm	-	-	-	-	
Canada-Ontario	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 ppm	100 ppm	-	-	-	
Canada-British Columbia		TWA:	STEL:	Ceiling:	Definition:	Criterion:
80-62-6	50 ppm	125 ppm	-	-	-	
Canada-Alberta	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	100 ppm	-	-	-	-	
Germany/AGW	AGW:	AGW:	Faktor:	Bemerkungen:		
80-62-6	50 ml/m3	210 mg/m3	2(I)	DFG, Y		
Slovakia	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 ppm	210 mg/m3	I.			
UK/WELs	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 ppm	100 ppm	-	-	-	
Czech Rep.	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 mg/m3	150 mg/m3	-	-	-	
ACGIH/TLV	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 ppm	100 ppm	-	-	-	
Germany/MAK	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 ppm	100 ppm	-	-	-	
Germany/TRK	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 ppm	210 mg/m3	=1=	Y DFG	-	
UK/OES	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 ppm	100 ppm	-	-	-	
Nederland	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	40 mg/m3	-	-	-	-	
Belgique	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	100 ppm	-	-	-	-	
Polska	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 mg/m3	400 mg/m3	-	-	-	
España	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	50 ppm	100 ppm	-	-	-	
USA/NIOSH REL	TWA:	STEL:	Ceiling:	Definition:	Criterion:	
80-62-6	100ppm	-	-	-	-	

USA/NIOSH IDLH	TWA:	STEL:	Ceiling:	Definition:	Criterion:
80-62-6	-	-	1000 ppm	-	-
USA/OSHA PEL	TWA:	STEL:	Ceiling:	Definition:	Criterion:
80-62-6	100 ppm	-	-	-	-

Respiratory protection:

Where workers encounter concentrations higher than the exposure limits, they must wear suitable, approved masks.

Hand protection:

Type of gloves recommended :

- Butyl rubber
- Neoprene

Protective creams may be used for exposed skin, but they should not be applied after contact with the product.

In the event of prolonged or repeated contact with the hands, use appropriate gloves.

Eye and face protection:

Use eye protectors designed to protect against liquid splashes

Envisage fountains occulaires and showers of safety in the workshops where the preparation is handled.

Skin protection:

For further information, see § 11 of S.D.S. - Toxicological information.

9 - PHYSICAL AND CHEMICAL PROPERTIES

General information:

Physical state:	fluid liquid

Important health, safety and environmental information:

pH of the substance or preparation:	not relevant.
The pH is impossible to measure or its value is not relevant.	
Boiling point/boiling range:	not relevant.
Flash point interval:	Flash point <= 21°C
Flash point:	2.00 °C.
Explosive properties, lower explosivity limit (%):	2,1
Explosive properties, upper explosivity limit (%):	12,5
Vapour pressure:	Below 110 kPa (1.10 bar).
Density:	< 1
Density:	0,94 (eau=1)
Water solubility:	Insoluble. 1,6 g / 100 ml
Partition coefficient: n-octanol/water:	1,38
Viscosity:	approx. 450 mPa.s
Vapour density:	3,5 (air=1)

Other information:

melting point/melting range:	not relevant.
Self-ignition temperature:	430 °C.
Decomposition point/decomposition range :	not relevant.

10 - STABILITY AND REACTIVITY

When exposed to high temperatures, the preparation may release dangerous decomposition products such as carbon monoxide and dioxide, smoke and nitrogen oxide

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Conditions to avoid:

Product sensitive to the light.

Materials to avoid:

In the presence of peroxides, reducers or heavy metals, the product can polymerize with release of heat.

Exothermic and dangerous reaction with peroxides, reducers, nitrates, bases strong, acid strong and iron oxide.

Explosive reaction with the activated carbon.

11 - TOXICOLOGICAL INFORMATION

Exposure to vapors from solvents contained in the preparation beyond the exposure limits stated may produce effects harmful to health, such as:

Irritation of mucous membrane and respiratory system, kidneys, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Prolonged or repeated contact with the preparation may strip the skin of its natural oil and thus cause non-allergic dermatitis on contact and absorption through the epidermis.

Splashes in the eyes may cause irritation and reversible damage

It is generally agreed that substances contained are likely to cause, among certain predisposed subjects, a sensitisation reaction by cutaneous route

In the event of exposure by inhalation:

Bibliographical data Methyl Methacrylate - CL50 (rat, 4h) = 7095 ml/m3

Bronchial irritation with thoracic pains, cough, pulmonary dyspnea even oedema and respiratory depression for very strong concentrations.

In the event of swallowing:

Bibliographical data Methyl Methacrylate - DL 50 (rat): 7.8 - 9.4 g/kg

Nauseas and irritation of the digestive tracts.

In the event of splashes or contact with skin:

Bibliographical data Methyl Methacrylate - DL 50 (rabbit) > 5000 mg/kg

Dermites possible by repeated contact. Can cause allergic reactions at the sensitive people.

In the event of splashes or contact with eyes:

Moderately irritating

Other data:

CAS 80-62-6 : IARC Groupe 3 (The agent is not classifiable as to its carcinogenicity to humans).

12 - ECOLOGICAL INFORMATION

The product must not be allowed to run into drains or waterways.

Persistence and degradability:

Bibliographical data Methyl Methacrylate: easily biodegradable: 88% after 28 days.

Bioaccumulative potential:

Bibliographical data Methyl Methacrylate: practically nonbioaccumulable - Log Pow: 0.7 - 1.38

Ecotoxicity:

Bibliographical data Methyl Methacrylate :

Fish (CL 50) - 96 H - 80 - 560 mg/l.

Daphnids (EC 50) - 48 H - 70 mg/l

Algae (Ci 50) - 96 H - = 170 mg/l

Other adverse effects:

Germany: WGK 1 (VwVwS vom 17/05/99, KBws)

13 - DISPOSAL CONSIDERATIONS

Do not pour into drains or waterways.

Waste:

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

14 - TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2007 - IMDG 2006 - ICAO/IATA 2007).

UN1866=RESIN SOLUTION, flammable

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis		
	3	F1	II	3	33	LQ6	640D		
IMDG	Class	2ºLable	Pack gr	LQ	EMS	Provis			
	3		-	5L	F-E-S-E	944			
IATA	Class	2ºLable	Pack gr	Passager	Passager	Cargo	Cargo	note	
	3	-	II	305	5L	307	60L	A3	
	3	-	II	Y305	1L	-	-	-	

15 - REGULATORY INFORMATION

This preparation was classified in compliance with the directive known as <All preparations> 1999/45/EC and its adaptations
In addition directive 2004/73/EC with the 29° adaptation of directive 67/548/EEC (Hazardous substances) have been taken into account.

Preparation classification:


Irritant


Highly flammable

Contains:

201-297-1	METHYL METHACRYLATE

Particular hazards associated with the preparation and safety recommendations:

R 43	May cause sensitisation by skin contact.
R 37/38	Irritating to respiratory system and skin.
R 11	Highly flammable.
S 24	Avoid contact with skin.
S 37	Wear suitable gloves.
S 16	Keep away from sources of ignition - No smoking.
S 9	Keep container in a well-ventilated place.
S 41	In case of fire and/or explosion do not breathe fumes.

16 - OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The product must not be used for any purposes other than those specified under heading 1 without first obtaining written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties

Full text of risk phrases appearing in section 3:

R 11	Highly flammable.
R 36/38	Irritating to eyes and skin.
R 37/38	Irritating to respiratory system and skin.
R 43	May cause sensitisation by skin contact.