

SAFETY DATA SHEET



Issue Date 25-Nov-2016

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Version 1

Section 1: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product identifier

Product Name ULTRATEC LSE LAMINATING RESIN 45

Other means of identification

UN Number UN1866

Recommended use of the chemical and restrictions on use

Recommended Use Recommended for Industrial and/or Professional use only

Details of manufacturer or importer

Manufacturer

Allnex Resins Australia Pty Ltd
49-61 Stephen Road
Botany, NSW 2019

For further information, please contact

Contact Point +61 (02) 9666 0331

E-mail address complianceANZ@allnex.com

Emergency telephone number

Emergency telephone number +61 1800 022 037

Section 2: HAZARD(S) IDENTIFICATION

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG)

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonised System (GHS)

GHS Classification

Flammable liquids	Category 3 - (H226)
Aspiration toxicity	Category 1 - (H304)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitisation	Category 1 - (H317)
Carcinogenicity	Category 2 - (H351)
Reproductive toxicity	Category 2 - (H361)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)

Label elements



Signal word

Danger

Hazard statements

H226 - Flammable liquid and vapour
H332 - Harmful if inhaled
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H351 - Suspected of causing cancer
H361 - Suspected of damaging fertility or the unborn child
H335 - May cause respiratory irritation
H372 - Causes damage to organs through prolonged or repeated exposure
H304 - May be fatal if swallowed and enters airways

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Do not breathe dust/fume/gas/mist/vapours/spray
Do not eat, drink or smoke when using this product
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Use explosion-proof electrical/ ventilating/ lighting/ equipment
Keep cool

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
Specific treatment (see supplemental first aid instructions on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
If skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before re-use
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician
Do NOT induce vomiting
In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

May be harmful if swallowed
Harmful to aquatic life with long lasting effects
Toxic to aquatic life

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**Substance**

Not applicable

Mixture

<u>Chemical Name</u>	<u>CAS No</u>	<u>Weight-%</u>
Styrene	100-42-5	30-<60
Methyl Methacrylate	80-62-6	10-<20
Benzene, mono-C10-14-alkyl derivatives	68442-69-3	1-<3
Non-hazardous ingredients	Balance	

Section 4: FIRST AID MEASURES

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Emergency telephone number	Poisons Information Centre, Australia: 13 11 26
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur. Get medical attention immediately if symptoms occur.
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. Get medical attention if irritation develops and persists. Wash off immediately with soap and plenty of water for at least 15 minutes.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a doctor. Immediate medical attention is required. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms	Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Burning sensation.
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Indication of any immediate medical attention and special treatment needed

Note to doctors	May cause sensitisation in susceptible persons. Treat symptomatically. Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.
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Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Suitable extinguishing media

Carbon dioxide (CO₂). Dry chemical. Alcohol resistant foam. Water spray.

Unsuitable extinguishing media

Do not use water jetstream

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. May cause sensitisation by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapours. Flammable. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Product is or contains a sensitiser. May cause sensitisation by skin contact.

Special protective actions for fire-fighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Hazchem code

•3Y.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures**Personal precautions**

Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up**Methods for containment**

Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Precautions to prevent secondary hazards**Prevention of secondary hazards**

Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE
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Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before re-use. Remove contaminated clothing and shoes.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e. pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials. Hazardous polymerisation may take place during a fire due to heat. Closed containers could violently rupture. Do not store at temperatures above 27C.

Incompatible materials

Strong acids. Strong bases. Strong oxidising agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Limits . This product, as supplied, contains hazardous materials with occupational exposure limits.

Chemical Name	Australia
Styrene 100-42-5	50 ppm TWA 213 mg/m ³ TWA 100 ppm STEL 426 mg/m ³ STEL
Methyl Methacrylate 80-62-6	50 ppm TWA 208 mg/m ³ TWA 100 ppm STEL 416 mg/m ³ STEL

Biological occupational exposure limits An occupational medicine specialist familiar with national and regional regulations and standards must be consulted to establish a program of medical examinations for workers exposed to substances with biological limit values

Chemical Name	Australia	ACGIH	United Kingdom	European Union
Styrene 100-42-5	-	Mandelic acid plus phenylglyoxylic acid: 400 mg/g creatinine urine end of shift Styrene: 40 µg/L urine end of shift	-	

Appropriate engineering controls

Engineering Controls Minimise exposure by partial enclosure of the operation or equipment and provide extract

ventilation at openings.

Individual protection measures, such as personal protective equipment

Eye/face protection	Tight sealing safety goggles. Face protection shield.
Skin and body protection	Antistatic footwear. Wear fire/flamm resistant/retardant clothing. Gloves made of plastic or rubber. Suitable protective clothing. Apron.
Respiratory protection	Where respiratory protection is required, use a respirator selected and in accordance with AS/NZS 1715 and AS/NZS 1716.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Appearance	viscous
Colour	clear
Odour	Styrene
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		Not applicable
Melting point / freezing point		No information available
Boiling point / boiling range	145 °C	(based on components)
Flash point	31 °C	Tag Closed Cup
Evaporation rate	0.49	
Flammability (solid, gas)		No information available
Flammability Limit in Air		
Upper flammability limit:	6.1 %	
Lower flammability limit:	1.1 %	
Vapour pressure	6.66619	hPa, 20°C Derived from solvent
Vapour density	3.6	Derived from solvent
Relative density	0.95	
Water solubility		Insoluble
Solubility(ies)	-	No information available
Partition coefficient		No information available
Autoignition temperature	490 °C	Derived from solvent
Decomposition temperature		No information available
Kinematic viscosity		No information available
Dynamic viscosity		No information available
Explosive properties	No information available	
Oxidising properties	Not applicable	

Other Information

VOC Content (%)	Not applicable
Density	No information available

* This information may be derived from the components in the preparation.

Section 10: STABILITY AND REACTIVITY

Reactivity

No Data Available.

Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Possibility of Hazardous Reactions

Possibility of Hazardous Reactions

HAZARDOUS POLYMERISATION MAY OCCUR UPON DEPLETION OF INHIBITOR.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong acids. Strong bases. Strong oxidising agents.

Hazardous Decomposition Products

Decomposition products can include and are not limited to: Styrene.

Section 11: TOXICOLOGICAL INFORMATION
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Acute toxicity

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal.
Eye contact	Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). May cause sensitisation by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Repeated exposure may cause skin dryness or cracking.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Converted acute toxicity point estimates may have been used when only acute toxicity hazard classification is available.

ATEmix (oral)	2,877.00
ATEmix (inhalation-vapour)	32.00
ATEmix (inhalation-dust/mist)	4.40
0% of the mixture consists of ingredient(s) of unknown toxicity	

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Styrene	= 1000 mg/kg (Rat)	-	= 11.7 mg/L (Rat) 4 h
Methyl Methacrylate	= 7900 mg/kg (Rat) = 7872 mg/kg (Rat)	-	= 4632 ppm (Rat) 4 h

Benzene, mono-C10-14-alkyl derivatives	= 2460 mg/kg (Rat)	-	-
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See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

Classification based on individual ingredients of the mixture. Irritating to skin.

Serious eye damage/eye irritation

Classification based on individual ingredients of the mixture. Irritating to eyes.

Sensitisation

May cause sensitisation by skin contact.

Germ cell mutagenicity

No information available.

Carcinogenicity

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Reproductive toxicity

Contains a known or suspected reproductive toxin.

STOT - single exposure

May cause respiratory irritation.

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

May be fatal if swallowed and enters airways.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Unknown Aquatic Toxicity

1.01782% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Fish
Styrene	19.03 - 33.53 mg/L LC50 96 h <i>Lepomis macrochirus</i> static 6.75 - 14.5 mg/L LC50 96 h <i>Pimephales promelas</i> static 3.24 - 4.99 mg/L LC50 96 h <i>Pimephales promelas</i> flow-through 58.75 - 95.32 mg/L LC50 96 h <i>Poecilia reticulata</i> static
Methyl Methacrylate	243 - 275 mg/L LC50 96 h <i>Pimephales promelas</i> flow-through 79 mg/L LC50 96 h <i>Oncorhynchus mykiss</i> static 170 - 206 mg/L LC50 96 h <i>Lepomis macrochirus</i> flow-through 79 mg/L LC50 96 h <i>Oncorhynchus mykiss</i> flow-through 125.5 - 190.7 mg/L LC50 96 h <i>Pimephales promelas</i> static 326.4 - 426.9 mg/L LC50 96 h <i>Poecilia reticulata</i> static 153.9 - 341.8 mg/L LC50 96 h <i>Lepomis macrochirus</i> static
Benzene, mono-C10-14-alkyl derivatives	1000 mg/L LC50 96 h <i>Oncorhynchus mykiss</i> semi-static

Chemical Name	Crustacea
Styrene	3.3 - 7.4 mg/L EC50 48 h <i>Daphnia magna</i>
Methyl Methacrylate	69 mg/L EC50 48 h <i>Daphnia magna</i>

Chemical Name	Algae/aquatic plants
Styrene	0.46 - 4.3 mg/L EC50 72 h Pseudokirchneriella subcapitata static 0.15 - 3.2 mg/L EC50 96 h Pseudokirchneriella subcapitata static 1.4 mg/L EC50 72 h Pseudokirchneriella subcapitata 0.72 mg/L EC50 96 h Pseudokirchneriella subcapitata
Methyl Methacrylate	170 mg/L EC50 96 h Pseudokirchneriella subcapitata
Benzene, mono-C10-14-alkyl derivatives	52 mg/L EC50 6 h Pseudokirchneriella subcapitata

Persistence and degradability

No information available.

Bioaccumulative potential

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Chemical Name	Partition coefficient
Styrene	2.95
Methyl Methacrylate	0.7

Mobility**Mobility in soil**

No information available.

Mobility

No information available.

Other adverse effects

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Endocrine Disruptor Information .

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Endocrine disrupting potential
Styrene	Group I Chemical	High Exposure Concern	-

Section 13: DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste from residues/unused products**

Hazardous wastes must be transported by a licensed hazardous waste transporter and disposed of or treated in a licensed hazardous waste treatment, storage, disposal or recycling facility.

Contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations. Observe all label precautions until container is cleaned, reconditioned or destroyed. Refer to all federal, state and local regulations prior to disposal of container and unused contents by reuse, recycle or disposal.

Section 14: TRANSPORT INFORMATION**ADG**

UN Number	UN1866
Proper shipping name	Resin solution
Description	UN1866, Resin solution, 3, III
Hazard Class	3
Packing Group	III
Special Provisions	223, *
Hazchem code	•3Y.

IERG 14

IMDG

UN/ID no	UN1866
Proper shipping name	Resin solution
Description	UN1866, Resin solution, 3, III, (31°C c.c.)
Hazard Class	3
Packing Group	III
EmS-No	F-E, S-E
Special Provisions	223, 955

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

No information available

IATA

UN/ID no	UN1866
Proper shipping name	Resin solution
Description	UN1866, Resin solution, 3, III
Hazard Class	3
Packing Group	III
ERG Code	3L

Section 15: REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG). Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonised System (GHS)

See section 8 for national exposure control parameters

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Classified as a scheduled poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Poison Schedule Number S5

Major hazard (accident/incident planning) regulation Verify that license requirements are met

<u>Hazardous chemical category</u>	<u>Threshold quantity (T)</u>
Liquids that meet the criteria for Class 3 Packing Group II or III	50 000
Liquids with flash points <61°C kept above their boiling points at ambient conditions	200

International Inventories

AICS - Australian Inventory of Chemical Substances	Listed or exempt
DSL - Canadian Domestic Substances List	Listed or exempt
IECSC - China Inventory of Existing Chemical Substances	Listed or exempt
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances	Listed or exempt
ENCS - Japan Existing and New Chemical Substances	Listed or exempt
KECL - Korean Existing and Evaluated Chemical Substances	Listed or exempt
NZIoC - New Zealand Inventory of Chemicals	Listed or exempt

PICCS - Philippines Inventory of Chemicals and Chemical Substances	Listed or exempt
CICR - Turkey Chemical Inventory Control Regulation	No information available
NCSR - Taiwan National Chemical Substance Registry	No information available
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	Listed or exempt

For confirmation on the European REACH status contact the Nuplex Regional Compliance group for additional information

International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Export Notification requirements Not applicable

Section 16: ANY OTHER RELEVANT INFORMATION

Revision Date 25-Nov-2016

Revision Note

The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

Disclaimer

This information is given without any warranty or representation. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation, and verification. Before using any product, read its label.

End of Safety Data Sheet