## a/l/̄ех

## SAFETY DATA SHEET

Issue Date 28-Sep-2017
Revision Date 05-Jul-2017
Version 2

## Section 1: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

| Product identifier |  |
| :---: | :---: |
| Product Name | ULTRATEC LSE LAMINATING RESIN 30 |
| 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 Composites <br> (a division of Allnex Resins Australia Pty Ltd) |  |
| 49-61 Stephen Road |  |
| Botany |  |
| NSW 2019 |  |
| For further information, please contact |  |
| Contact Point | +61 (02) 96660331 |
| E-mail address | complianceANZ@allnex.com |
| Emergency telephone number |  |
| Emergency telephone number | +61 1800022037 |

## 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) |
| :--- | :--- |
| Reproductive toxicity | Category 2 - (H361) |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 - (H332) |
| Specific target organ toxicity (repeated exposure) | Category 1 - (H372) |
| Specific target organ toxicity (single exposure) | Category 3 - (H335) |
| Skin corrosion/irritation | Category 2 - (H315) |
| Serious eye damage/eye irritation | Category 2 - (H319) |

Label elements


## Hazard statements

H226 - Flammable liquid and vapour
H315-Causes skin irritation
H319-Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H361 - Suspected of damaging fertility or the unborn child
H372-Causes damage to organs through prolonged or repeated exposure

## 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
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 occurs: Get medical advice/attention
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before re-use
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
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

Harmful to aquatic life with long lasting effects
Toxic to aquatic life
This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product
Avoid dust formation
Sanding and grinding dust may be harmful if inhaled

## Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

## Substance

Not applicable
Mixture
Chemical Name

```
CAS No
100-42-5
```

Weight-\%
Styrene
Non-hazardous ingredients

## 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 <br> required. |
| :--- | :--- |
| Emergency telephone number | Poisons Information Centre, Australia: 131126 <br> Inhalation <br> Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical <br> attention immediately if symptoms occur. |
| Skin contact | Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical <br> attention if irritation develops and persists. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep <br> eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present <br> 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. |
| Self-protection of the first aider | Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) <br> involved, take precautions to protect themselves and prevent spread of contamination. Use <br> personal protective equipment as required. See section 8 for more information. Avoid direct <br> contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, <br> eyes or clothing. Wear personal protective clothing (see section 8). |

Most important symptoms and effects, both acute and delayed
Symptoms Burning sensation.

Indication of any immediate medical attention and special treatment needed
Note to doctors Treat symptomatically.

## Section 5: FIREFIGHTING 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 action to prevent 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. Dam 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 action to prevent 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

## 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 action to prevent 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 it before reuse. 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. Keep out of the reach of children. Store locked up. Store separately. 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 AND PERSONAL PROTECTION

## Control parameters

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

| Chemical Name | Australia |
| :---: | :---: |
| Styrene | 50 ppm TWA |
| $100-42-5$ | $213 \mathrm{mg} / \mathrm{m}^{3}$ TWA |
| 100 ppm STEL |  |
|  | $426 \mathrm{mg} / \mathrm{m}^{3} \mathrm{STEL}$ |

## 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 | - | Mandelic acid plus <br> phenylglyoxylic acid: 400 <br> mg/g creatinine urine end of <br> shift |  |  |

## Appropriate 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
Skin and body protection

Tight sealing safety goggles. Face protection shield.
Antistatic footwear. Wear fire resistant or flame 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 |  |
| Property | Values | Remarks - Method |
| pH |  | Not applicable |
| Melting point / freezing point |  | No information available |
| Boiling point/boiling range | $145{ }^{\circ} \mathrm{C}$ | (based on components) |
| Flash point | $31{ }^{\circ} \mathrm{C}$ | 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 | 0.6 | Derived from solvent kPa |
| Vapour density | 3.6 | Derived from solvent |
| Relative density | 1.05 |  |
| Water solubility |  | insoluble |
| Solubility(ies) | - | No information available |
| Partition coefficient |  | No information available |
| Auto-ignition temperature | $490{ }^{\circ} \mathrm{C}$ | Derived from solvent |
| Decomposition temperature |  | No information available |
| Kinematic viscosity | $1524 \mathrm{~mm} 2 / \mathrm{s}$ |  |
| Dynamic viscosity | >= 1600 mPas | 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 derive | the components in the pr |  |

## 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

## 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 <br> respiratory tract. |
| :--- | :--- |
| Eye contact | Specific test data for the substance or mixture is not available. Irritating to eyes. (based on <br> components). Causes serious eye irritation. |
| Skin contact | Specific test data for the substance or mixture is not available. Causes skin irritation. (based <br> on components). |
| Ingestion | Specific test data for the substance or mixture is not available. Ingestion may cause <br> gastrointestinal irritation, nausea, vomiting and diarrhoea. |

## 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 (inhalation-vapour) $\quad 28.70$

ATEmix (inhalation-dust/mist) 3.60
$0 \%$ of the mixture consists of ingredient(s) of unknown toxicity
$0 \%$ of the mixture consists of ingredient(s) of unknown acute oral toxicity
$0 \%$ of the mixture consists of ingredient(s) of unknown acute dermal toxicity
$0 \%$ of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
$0 \%$ of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
$0 \%$ of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
| :--- | :---: | :---: | :---: |
| Styrene | $=5000 \mathrm{mg} / \mathrm{kg}$ ( Rat ) | - | $=11.8 \mathrm{mg} / \mathrm{L}(\mathrm{Rat}) 4 \mathrm{~h}$ |

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

No information available.
Germ cell mutagenicity
No information available.
Carcinogenicity
No information available.

## 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

No information available.

## Section 12: ECOLOGICAL INFORMATION

## Ecotoxicity

Unknown Aquatic Toxicity $\quad 0.016 \%$ of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Chemical Name | Fish |
| :--- | :---: |
| Styrene | $19.03-33.53 \mathrm{mg} / \mathrm{L} \mathrm{LC50} \mathrm{96} \mathrm{h} \mathrm{Lepomis} \mathrm{macrochirus} \mathrm{static}$ |
|  | $6.75-14.5 \mathrm{mg} / \mathrm{L}$ LC50 96 h Pimephales promelas static |
|  | $3.24-4.99 \mathrm{mg} / \mathrm{L} \mathrm{LC50} \mathrm{96} \mathrm{h} \mathrm{Pimephales} \mathrm{promelas} \mathrm{flow-through}$ |
|  | $58.75-95.32 \mathrm{mg} / \mathrm{L}$ LC50 96 h Poecilia reticulata static |


| Chemical Name | Crustacea |
| :--- | :---: |
| Styrene | $3.3-7.4 \mathrm{mg} / \mathrm{L}$ EC50 48 h Daphnia magna |


| Chemical Name | Algae/aquatic plants |
| :--- | :---: |
| Styrene | $0.46-4.3 \mathrm{mg} / \mathrm{L}$ EC50 72 h Pseudokirchneriella subcapitata static |
|  | $0.15-3.2 \mathrm{mg} / \mathrm{L}$ EC50 96 h Pseudokirchneriella subcapitata static |
|  | $1.4 \mathrm{mg} / \mathrm{L}$ EC50 72 h Pseudokirchneriella subcapitata |
|  | $0.72 \mathrm{mg} / \mathrm{L}$ EC50 96 h Pseudokirchneriella subcapitata |

## Persistence and degradability

No information available.

## Bioaccumulative potential

| Chemical Name | Partition coefficient |
| :---: | :---: |
| Styrene | 2.95 |

## Mobility

## Mobility in soil

No information available.

## Mobility

No information available.

## Other adverse effects

## Endocrine Disruptor Information .

| Chemical Name | EU - Endocrine Disrupters <br> Candidate List | EU - Endocrine Disruptors - <br> Evaluated Substances | Endocrine disrupting potential |
| :---: | :---: | :---: | :---: |
| Styrene | Group I Chemical | High Exposure Concern |  |

## Section 13: DISPOSAL CONSIDERATIONS

## Waste treatment methods

Waste from residues/unused products

Contaminated packaging
Refer to all federal, state and local regulations prior to disposal of container and unused contents by re-use, recycle or disposal.

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 re-use, recycle or disposal.

## Section 14: TRANSPORT INFORMATION

## ADG

UN Number
Proper shipping name
Description
Hazard Class
Packing Group
Special Precautions for users
Hazchem code $\cdot 3 \mathrm{Y}$

IERG
UN1866
RESIN SOLUTION
UN1866, RESIN SOLUTION, 3, III
3
III
223, *
$\cdot 3 Y$.
14

## IMDG

UN/ID no
Proper shipping name
Description
Hazard Class
Packing Group
EmS-No
Special Precautions for users

UN1866
RESIN SOLUTION
UN1866, RESIN SOLUTION, 3 , III, ( $31^{\circ} \mathrm{C}$ C.C.)
3
III
F-E, S-E
223, 955

Transport in Bulk According to Annex II of MARPOL and the IBC CODE
No information available

IATA
UNID no
Proper shipping name
Description
Hazard Class
Packing Group
ERG Code 3L

UN1866
Resin solution
UN1866, Resin solution, 3, III
3
III
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

| Hazardous chemical category | Threshold quantity (T) |
| :--- | :--- |
| Liquids that meet the criteria for Class 3 Packing Group II or III | 50000 |

Liquids with flash points $<61^{\circ} \mathrm{C}$ 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 |
| 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 Allnex Compliance group at PSRA-Customer-Requests@allnex.com

## 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 | 05-Jul-2017 |
| :--- | :--- |
| Revision Note | SDS sections updated |
|  | 2 |

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

| Legend | Section 8: EXPOSURE CONTROLS AND 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

