



## Safety Data Sheet UNIRESIN 30 LSE Orthophthalic Polyester Resin

Updated April 2021

### 1. Identification of the Material and Supplier

Product Name:	UNIRESIN 30 LSE
Product Code:	385-55023-30
UN Number:	1866
DG Class:	3
Shipping Name:	Resin Solution, Flammable
Packaging Group:	III
Hazchem Code:	3Y
Uses:	Industrial and Professional use only
Company:	H S Composites
Address:	63 Hunua Road, Papakura, Auckland 2110
Telephone:	+64 (09) 295 2200
Email:	sales@hscomposites.co.nz
Website:	www.hscomposites.co.nz

### 2. Hazard Identification

#### Regulatory Information:

Additives, Process Chemicals and Raw Materials (Flammable) Group Standard 2020, October 2020

HSNO Approval Number HSR002495

Dangerous Goods Class 3

#### Hazardous Classifications

Flammable Liquid	Category 3
Toxicity-Inhalation (Dust & Mists)	Category 4
Reproductive Toxicity	Category 2
Specific Target Organ Toxicity (single exposure)	Category 3
Specific Target organ Toxicity (repeated exposure)	Category 1
Skin Corrosion/Irritant	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitisation	Category 1
Aspiration Toxicity	Category 1
Acute Aquatic Toxicity	Category 2
Chronic Aquatic Toxicity	Category 3

Pictograms:Signal Word:      **DANGER**

H226	Flammable liquid and vapor.
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HEALTH HAZARDS:

H226	Flammable Liquid and Vapour
H304	May be fatal if swallowed and enters airways
H315	Causes Skin Irritation
H317	May cause an allergic skin reaction
H319	Causes Serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H361	Suspected of damaging fertility of the unborn child
H372	Causes damage to organs through prolonged or repeated exposure

ENVIRONMENT HAZARDS:

H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS:    Preventions

P103	Read Label/SDS before use
P201	Obtain instructions before use
P210	Keep away from heat/sparks/open flame/hot surfaces. No smoking.
P233	Keep container tightly closed
P235	Keep cool
P240	Ground/bond container and receiving equipment
P241	Use explosion proof electrical, ventilating and lighting equipment
H242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe vapours
P261	Do not breath dust/fumes/gas/mist/vapours/spray
P264	Wash hands and exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only in well-ventilated areas
P272	Contaminated clothing should not be allowed out of the work place
P273	Avoid release of this product into the environment
P280	Wear protective clothing, gloves and eye protection
P281	Use personal protective equipment as required

**RESPONSE:**

P101	If medical advice is needed, have product container, SDS or label at hand
P301 + P312	If swallowed call POISON CENTRE or DOCTOR if you feel unwell
P330	Rinse out mouth, do not swallow rinse
P302 + P352	If on skin or hair, wash with plenty of soap and water
P332 + P313	If skin irritation occurs, get medical advice
P362	Take off contaminated clothing and wash before reuse
P304 + P340	If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing
P305 + P351	If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so, continue to rinse
P337 + P313	If eye irritation persists seek medical advice
P308 + P313	If exposed or concerned seek medical advice
P314	Get medical advice if you feel unwell
P370 + P378	In case of fire use water fog, foam, dry chemical or carbon dioxide (CO <sub>2</sub> ) to extinguish
P391	Collect any spillage
P301+P330	<u>IF SWALLOWED: CALL POISONS INFORMATION CENTER IMMEDIATELY</u> , rinse out mouth, do not swallow water, DO NOT induce vomiting.
P370+P378	In case of fire: Use appropriate media for extinction if safe to do so, Section 5.

**STORAGE:**

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P235	Keep cool.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P405	Store in a locked and bunded dangerous goods area.

**DISPOSAL:**

P501	Dispose of product and packaging in accordance with local and Governmental regulations or through an approved waste disposal plant.
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**Dangerous Goods Classification** 3

**Packing Group** III

**Hazchem Code** 3Y

3. Composition / Information on Ingredients
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Component	Cas No	Proportion
Styrene	100-42-5	30 -<60%
Methyl Methacrylate	80-62-6	10-<20%
Benzene, mono-C10-14-alkyl derivatives	68442-69-3	1-<2.5%
Non-Hazardous Ingredients		Balance

**4. First Aid**

**For advice, contact the National Poisons Centre (Phone New Zealand: 0800 764 766) or a doctor, show Doctor in attendance a copy of this SDS.**

Inhalation: Move the person to fresh air immediately. Keep warm and at rest until recovered. Get medical advice if person feels unwell or is concerned. Begin artificial respiration if breathing has stopped and get immediate medical assistance, delayed pulmonary oedema may occur.

Skin Contact: If skin contact occurs, remove contaminated clothing and wash skin with soap and water. If skin irritation occurs, get medical advice. Launder contaminated clothing before re-use.

Eye Contact: Hold eyelids apart and flush the eye continuously with running water for 15 minutes. Remove contact lenses after 5 minutes if present, and easy to do. Continue flushing. Get medical attention if irritation develops and persists.

Ingestion: If swallowed, do NOT induce vomiting. Rinse mouth with water. Get immediate medical advice. Call a Doctor and/or contact Poisons Information Centre, if required begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Obtain immediate medical attention can enter lungs and cause severe damage or death.

First Aid Provider: Wear PPE, provide eye baths and safety showers close to areas where splashing may occur, use a mouth barrier if giving resuscitation.

Note to Doctor/Physician: Treat symptomatically, supply copy of SDS, danger of aspiration, emesis and vomiting.

**5. Fire Fighting Measures**

Flammable liquids and vapours: Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing fire fighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media: Water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>). DO NOT USE JET STREAMS OF WATER, THIS WILL ONLY SPREAD THE FIRE.

Hazards from combustion products: Smoke, fume, carbon dioxide and carbon monoxide and incomplete combustion products.

Precautions for fire fighters and special protective equipment: Full protective clothing and self-contained breathing apparatus.

Hazchem Code: **3Y**

Styrene will polymerise at elevated temperatures. If this occurs in a closed container there is risk of violent rupture.

**SPECIAL FIREFIGHTING PROCEDURES.**

Fight like a fuel-oil fire. Water used in fire-fighting should not be allowed to enter drainage systems or contaminate soil. LFL 1.1% UFL 6.1%. Hazchem Code 3Y.

**6. Accidental Release Measures**

Steps to be taken if the material is released or spilled.

Evacuate personnel to a safe area. Use Protective equipment as required. Ensure adequate ventilation in area. Make sure there is no risk to personnel.

Stop leak if you can do it without risk to yourself or others.

Eliminate all sources of ignition (flames, hot surfaces, electrical, static or frictional sparks, no smoking).

Contain the area of spillage and pump material into drums for use or disposal. Absorb remainder on sand or perlite and place the saturated absorbent into closed containers and label for disposal.

Prevent contamination of storm-water drains and waterways. Be aware of static discharge.

Waste disposal method. Destroy by liquid incineration with off-gas scrubber.

Contaminated absorbent to be disposed of in accordance with appropriate local or governmental regulations.

Correctly label all material containers to be disposed of.

Liquid material mixed with peroxide initiators should be allowed to gel and cool before disposal as solid waste in accordance with appropriate local or national regulations.

## 7. Storage and Handling

Use Personal Protection. Avoid inhalation of vapour and contact with skin, eyes and clothing.

Laundry contaminated clothing before re-use, wash skin with soapy water. Wash hands thoroughly after using and before eating.

This product is flammable, do not open near open flame, sources of heat or ignition, NO SMOKING.

Store in a locked and bunded area or approved flammable goods store away from direct heat (keep below 25°C to prevent spoilage). Keep away from children. Keep containers closed when not in use.

Open drums slowly in case of internal pressure. Isolate from all potential sources of ignition including flames and electrical sparks.

Store separate from oxidising materials, peroxides and metal salts.

Ground (earth) containers when using above flash point, 31°C.

## 8. Exposure Controls / Personal Protective Equipment

### Workplace Exposure Limits

Styrene (Cas# 100-42-5) is 20ppm TWA and 40ppm STEL.

Methyl Methacrylate (Cas# 80-62-6) is 50ppm TWA and 100ppm for STEL

Use general dilution or local exhaust ventilation to maintain vapour concentration below WES level.

If concentrations exceed exposure limit use organic vapour canister mask or approved air-line mask.

Skin Protection: Wear overalls or other work clothing providing arm and leg cover. Use protective gloves (Latex or Nitrile).

Eye Protection: Safety goggles or splash mask.

If sanding or grinding the hardened product ensure there is adequate ventilation, exhaust fans and the correct PPE.



**9. Physical / Chemical Properties**

<b>Physical Description &amp; colour:</b>	Clear viscous liquid.
<b>Odour:</b>	Pungent aromatic odour of styrene.
<b>Boiling Point:</b>	145°C (Styrene)
<b>Flammable Liquid Flash Point:</b>	31°C
<b>Flammable Limits:</b>	LEL (lower explosive limit) 1.1% UEL (upper explosive limit) 6.1%
<b>Relative Density:</b>	0.95
<b>Percent Volatiles:</b>	<60%
<b>Water Solubility:</b>	Insoluble
<b>Auto Ignition Temperature:</b>	490°C

**10. Stability and Reactivity**

<b>Stability:</b>	Stable under normal conditions and storage requirements. Potentially unstable – may polymerise producing heat if stored incorrectly or over heated.
<b>Conditions to avoid:</b>	Exposure to sunlight, open flames, contamination and prolonged storage above 25°C.
<b>Materials to avoid:</b>	Strong acids, peroxides, other oxidising agents, transition metals e.g. copper and zinc, their alloys and galvanised items.
<b>Hazardous Polymerisation:</b>	May occur upon the depletion of the inhibitor or as result of high temperature or contamination, if burned, these products will evolve black, acrid smoke along with carbon monoxide, carbon dioxide and various organic compounds.

**11. Toxicological Information**

Wear the correct Personal Protection equipment with this product and any others.

When used under properly controlled conditions, within workplace exposure limits and with adequate ventilation and protective equipment, no adverse health effects are to be expected.

**Inhalation of Vapour:** May cause headaches, nausea, irritation of the respiratory tract, aspiration into the lungs can produce severe lung damage.

**Eye Contact:** Moderate to serious irritation. Reddening may occur if exposure is prolonged.

**Skin Contact:** Irritant, may cause sensitisation by skin contact. May cause itching, cracking, drying and redness of skin.

**Ingestion:** Harmful by ingestion. Possible irritation of mucous membranes, nausea, vomiting and gastric disturbance. Possible depression of central nervous system. Aspiration into lungs could cause pulmonary oedema and pneumonitis which may damage lungs or may be fatal.

**Chronic effects of overexposure:**

Seek medical advice. Mild dermatitis may result from prolonged or repeated skin contact. Styrene can be absorbed through the skin. Excessive exposure to the liquid material or vapour may affect the central nervous system, the liver, kidneys and respiratory system.

## 12. Ecological Data

Prevent these products from entering storm-water drains sewers or waterways. Styrene is the major contaminant hazard in these formulations and it will undergo slow (but near complete) biodegradation in contact with soil. Styrene vapour degrades rapidly in the atmosphere. Styrene floats on water and will vaporise and biodegrade in small quantities. Toxic with short term and long-term hazard to aquatic organisms in large quantities.

H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects

## 13. Disposal Considerations

**Waste Disposal:** Small quantities of these products may be mixed with appropriate amounts of polymerization initiators (catalyst) and allowed to solidify before disposal as solid waste. The best solution is to recover or recycle if possible. This material and its container must be disposed of as hazardous waste.

Any disposal must be labelled as such and comply with applicable local and national regulations. Ensure that these materials do not enter drains, sewers or waterways. Ensure that empty packaging is managed in accordance with Dangerous Goods and HSNO regulations.

P501	Dispose of product and packaging in accordance with local regulations or through an approved waste disposal plant.
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**Dangerous Goods Classification** 3

**Packing Group** III

**Hazchem Code** 3Y

## 14. Transport Information

UN Number:	UN1866
Proper Shipping Name:	Resin Solution, Flammable
Hazchem Code:	3Y
Dangerous Goods Class:	Class 3
Packing Group:	III
Tunnel Restriction:	D
Environmental Hazard:	Marine Pollutant - Yes
Special Precautions for users:	223
EMS Number	F-E, S-E
IERG Code	14

**15. Regulatory Information**

Additives, Process Chemicals and Raw Materials (Flammable) Group Standard 2020, October 2020

EPA New Zealand HSNO approval code HSR002495,

SDS To be available within 10 minutes when required.

**16. Other Information**

This SDS contains only safety-related information. For other data see product information literature.

LEL	Lower explosive limit
UEL	Upper explosive limit
TWA	Time weighted average over 8 hr working day
STEL	Short term expose limit
Cas #	Unique registered number for chemicals
ppm	parts per million
UN number	Individual number assigned to hazardous materials
EMS	Emergency response for shipping
ERG	Emergency code for first responders
Other References	Supplier SDS's

**Review:** 9 April 2021

Reason: Updates and pictograms

**Disclaimer:** The information given in this safety data sheet is given in good faith and is believed to be valid and accurate at the time of publication. However, no responsibility is accepted for accident or injury which may occur from omissions or from information contained in the data sheet. Before using any product read its label.

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