SAFETY DATA SHEET

Safety Data Sheet conforms to Safe Work Australia and Work Health and Safety (WHS) Regulations

1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: **POLYPLEX™ GP LSE RESIN 45**
Other means of identification: None
Product Description: Polyester resin in styrene
Intended/Recommended Use: Recommended for Industrial and/or Professional use only
Uses advised against: Not available

Allnex Composites
A division of Allnex Resins Australia Pty. Ltd.
49 - 61 Stephen Road, Botany, NSW 2019, Australia

For Product and all Non-Emergency Information call +61 (02) 9666 0331 (business hours only) or contact us at http://www.allnex.com/contact

EMERGENCY TELEPHONE NUMBER (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:
+61 1800 022 037 (Allnex Australia)
See Section 16 for Emergency phone numbers for other regions.

2. HAZARDS IDENTIFICATION

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Additional GHS classification or other information may be included in this section but has not been adopted by Work Health and Safety (WHS) Regulations.

GHS Classification
Flammable Liquids Hazard Category 3
Skin Corrosion / Irritation Hazard Category 2
Serious Eye Damage / Eye Irritation Hazard Category 2A
Skin Sensitizer Hazard Category 1A
Specific Target Organ Toxicity (STOT) - Single Exposure Hazard Category 3
Specific Target Organ Toxicity (STOT) - Repeated Exposure Hazard Category 1
Toxic To Reproduction Hazard Category 2
Aquatic Environment Acute Hazard Category 2
Aquatic Environment Chronic Hazard Category 3

LABEL ELEMENTS

Name of Pictogram(s)
Flame
Health hazard
Exclamation mark

Signal Word
DANGER

Hazard Statements
Flammable liquid and vapour
Suspected of damaging fertility or the unborn child
Causes damage to organs through prolonged or repeated exposure
May cause respiratory irritation
Causes skin irritation
Causes eye irritation
May cause an allergic skin reaction
Toxic to aquatic life
Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention
Keep away from heat, sparks and open flame. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and other equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors or spray mist.

Response
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off contaminated clothing and wash before reuse. 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 ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment - refer to first aid instructions on safety data sheet. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell. Get medical attention/advice if you feel unwell. IF exposed or concerned: Get medical advice/attention.

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

Disposal
Dispose of contents/container in accordance with local and national regulations.

OTHER HAZARDS
Polymerisation may occur from excessive heat, contamination or exposure to direct sunlight.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Substance or Mixture?: Mixture

Component / CAS No.	%	GHS Classification
Styrene 100-42-5	36 - 39	Flam. Liq. 3 (H226) Repr. 2 (H361d) Acute Tox. 4 (H332) STOT RE 1 (H372) STOT Single 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)
Toluene 108-88-3	< 0.2	Flam. Liq. 2 (H225) Repr. 2 (H361) STOT RE 2 (H373) STOT SE 3 (H336) Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)
Maleic anhydride 108-31-6	< 0.1	Acute Tox. 4 (H302) STOT RE 1 (H372) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Resp. Sens. 1 (H334) Skin Sens. 1A (H317) Aquatic Acute 3 (H402)
Cobalt bis(2-ethylhexanoate) 136-52-7	< 0.1	Repr. 1B (H360) Eye Irrit. 2A (H319) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)
Maleic acid 110-16-7	< 0.1	Acute Tox. 4 (H302) STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Skin Sens. 1B (H317)

Other non-hazardous ingredients to 100%

Additional GHS classification or other information may be included in this section but has not been adopted by Work Health and Safety (WHS) Regulations.

See Section 16 for full text of H phrases.

4. FIRST-AID MEASURES

Emergency telephone number
Poisons Information Centre, Australia: 13 11 26

Symptoms and Signs of Poisoning:
Itching. Rashes. Hives. Burning sensation.

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.

Skin Contact:
Wash immediately with plenty of water and soap. 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.

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.

Inhalation:
Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.

Notes To Physician:
May cause sensitisation in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:
Carbon dioxide. dry chemical. Alcohol resistant foam. Water spray.

Unsuitable Extinguishing Media:
full water jet.

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

Special Hazards:
May be ignited by heat, sparks or flames. In case of fire and/or explosion do not breathe fumes. May cause sensitization 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 sensitization by skin contact.

HAZCHEM Code: •3Y

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Evacuate personnel to safe areas. Use personal protective equipment as required. 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 discharge. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Ventilate the area.

Methods For Containment:
Stop leak if safe to do so. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. 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 action to prevent static discharge. Dam up. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal.

Environmental Precautions:
Avoid release to the environment.

References to other sections:
See Sections 7, 8 and 13 for additional information.

7. HANDLING AND STORAGE

Handling

Precautions: Keep away from heat, sparks and open flame. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and other equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors or spray mist.

Special Handling Statements: Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharge. 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 practices. 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 without delay. Containers must be bonded and grounded when pouring or transferring material. Avoid excessive heat, contamination or exposure to direct sunlight to prevent polymerization.

Storage
Keep container tightly closed and dry in a cool, 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 reach of children. Store separately. Hazardous polymerisation may take place during a fire due to heat. Closed containers could violently rupture.

Storage Temperature: Store at < 35 °C
Reason: Higher storage temperature reduces shelf life and also increases risk of hazardous polymerization.

Australian AS 1940 Storage Classification: Flammable liquid

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONTROL PARAMETERS - Limits

Styrene 100-42-5

Australia:	50 ppm (TWA)
	213 mg/m^3 (TWA)
	100 ppm (STEL)
	426 mg/m^3 (STEL)
New Zealand:	20 ppm (TWA)
	85 mg/m^3 (TWA)

	40 ppm (STEL)
	170 mg/m³ (STEL)
ACGIH (TLV):	20 ppm (STEL)
	10 ppm (TWA)

Toluene 108-88-3

Australia:	50 ppm (TWA)
	191 mg/m³ (TWA)
	150 ppm (STEL)
	574 mg/m³ (STEL)
New Zealand:	20 ppm (TWA)
	75 mg/m³ (TWA)
	100 ppm (STEL)
	377 mg/m³ (STEL)
	(skin)
ACGIH (TLV):	20 ppm (TWA)

Maleic anhydride 108-31-6

Australia:	0.25 ppm (TWA)
	1 mg/m³ (TWA)
New Zealand:	0.0025 ppm inhalable fraction and vapour (TWA)
	0.01 mg/m³ inhalable fraction and vapour (TWA)
ACGIH (TLV):	0.01 mg/m³ inhalable fraction and vapor (TWA)

Biological Exposure Limit(s)

Styrene 100-42-5

Biological Exposure Indices (ACGIH)	400 mg/g creatinine (urine - end of shift)
	40 µg/L (urine - end of shift)

Toluene 108-88-3

Biological Exposure Indices (ACGIH)	0.02 mg/L (blood - prior to last shift of workweek)
	0.03 mg/L (urine - end of shift)
	0.3 mg/g creatinine (urine - end of shift)

Engineering Measures:
Minimize exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.

Respiratory Protection:
For operations where inhalation exposure can occur use an approved respirator. Recommendations are listed below. Other protective respiratory equipment may be used based on user's own risk assessment.
Where respiratory protection is required, use a respirator selected and in accordance with AS/NZS 1715 and AS/NZS 1716.

Eye protection:
Tight sealing safety goggles. Face protection shield.

Skin Protection:
Antistatic footwear. Wear fire/flame resistant/retardant clothing. Gloves made of plastic or rubber. Wear suitable protective clothing. Apron.

Hand protection:
Wear protective gloves. Recommendations are listed below. Other protective materials may be used based on user's own risk assessment. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility etc.) is noticed.

Gloves for repeated or prolonged exposure - non exhaustive list:
Polyvinyl alcohol (PVA), thickness: 0.2-0.3 mm, break through time: > 480 min

Gloves for short term exposure/splash protection - non exhaustive list:
Nitrile rubber (NBR), thickness: 0.38 mm, break through time: up to 30 min

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

Not suitable gloves - non exhaustive list:
Nitrile rubber (NBR), thickness: 0.12 mm
Natural rubber (NRL), thickness: 0.75 mm
Neoprene rubber (NE), thickness: 0.40 mm

Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing. Use PE gloves as under gloves for difficult situations like for instance: high exposure, unknown composition or unknown properties of the chemicals.

Additional Advice:
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 reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	liquid viscous
Colour:	blue
Odor:	styrene
Odor Threshold:	See Section 8 for exposure limits.
Melting Point:	Not available
Boiling Point:	145 °C (based on components)
Flammability:	Not available
Flammable Limits (% By Vol):	Lower: 1.1 Upper: 6.1
Flash point:	31 °C Tag Closed Cup
Autoignition temperature:	490 °C Derived from solvent
Decomposition Temperature:	Not available
pH:	Not applicable
Viscosity (Kinematic):	Not applicable
Viscosity (Dynamic):	> 300 mPa.s @ 25 °C
Solubility In Water:	Insoluble
Solubility In Solvent:	Not available
Partition coefficient (n-octanol/water):	Not available
Vapor Pressure:	6.66619 hPa, 20°C Derived from solvent
Specific Gravity/Density:	~ 1.10 g/cm³
Vapour density:	3.6 Derived from solvent
Particle characteristics:	Not applicable

9.2 OTHER INFORMATION

9.2.1 Information with regard to physical hazard classes
Not applicable

9.2.2 Other safety characteristics
Not applicable

10. STABILITY AND REACTIVITY

Reactivity:	No information available
Stability:	Stable.
Conditions To Avoid:	Heat, flames and sparks.
Polymerization:	May occur
Conditions To Avoid:	Avoid contact with oxidizing agents, free radical initiators.
Materials To Avoid:	Strong oxidizing agents. Strong acids Strong bases
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin, Eyes, Oral, Respiratory System.

HEALTH HAZARD INFORMATION

Acute toxicity - oral: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Acute toxicity - dermal: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Acute toxicity - inhalation: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

Skin corrosion / irritation: Causes skin irritation
Serious eye damage / eye irritation: Causes serious eye irritation

Respiratory sensitization: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Skin sensitization: May cause an allergic skin reaction

Carcinogenicity: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Germ cell mutagenicity: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Reproductive toxicity: Suspected of damaging fertility or the unborn child

Specific target organ toxicity (single exposure): May cause respiratory irritation.
Specific target organ toxicity (repeated exposure): Causes damage to organs through prolonged or repeated exposure.
Route of Exposure: inhalation **Affected Organs:** Ears

Aspiration hazard: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA

oral	rat	Acute LD50		> 2000	mg/kg
dermal	rabbit	Acute LD50		> 2000	mg/kg
inhalation	rat	Acute LC50	4 hr	> 20	mg/l (Vapors)

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	Skin	Irritating
Acute Irritation	eye	Irritating

ALLERGIC SENSITIZATION

Sensitization	Skin	Severe Sensitizing
Sensitization	respiratory	No data

SUBACUTE/SUBCHRONIC TOXICITY

Specific target organ toxicity (repeated exposure): Causes damage to ears through prolonged or repeated exposure by inhalation.

GENOTOXICITY

Assays for Gene Mutations

Ames Salmonella Assay	No data

OTHER INFORMATION

The product toxicity information above has been estimated.

HAZARDOUS INGREDIENT TOXICITY DATA

Styrene has acute oral LD50 (rat) and acute dermal LD50 (rat, rabbit) values of >5000 and >2000 mg/kg, respectively. The inhalation LC50 (rat) has been reported as 11.8 mg/L (vapor) following a 4-hour exposure. Acute overexposure to styrene vapor may cause moderate eye and nasal irritation as well as drowsiness, headache and central nervous system depression. Styrene is a moderate skin irritant. No allergic reactions were observed in animal studies. In animal studies, styrene induced micronuclei, sister chromatid exchanges and DNA strand breaks. In vitro tests showed styrene to cause sex- linked recessive lethal mutations in Drosophila (fruit flies). Styrene has been shown to cause lung tumors in mice. Epidemiological studies of styrene exposure in humans are not conclusive due to the inadequate control of variables. Causes damage to ears through prolonged or repeated exposure by inhalation. Ingestion of styrene can initiate an aspiration hazard. The International Agency for Research on Cancer (IARC) lists styrene as an IARC 2B carcinogen (possibly carcinogenic to humans). Animal studies have shown some adverse developmental effects.

Toluene has acute oral (rat) and dermal (rabbit) LD50 values of 4,328 mg/kg and 12124 mg/kg, respectively. The acute 4-hour inhalation (rat, female) LC50 value is 5,060 ppm (19.07 mg/L). Toluene is a severe eye and moderate skin irritant. Inhalation overexposure to toluene vapor can cause headache, fatigue, nausea, and central nervous system depression. Sustained inhalation of high levels of toluene has been shown to cause reversible kidney and liver damage. Subchronic inhalation of toluene vapors have caused permanent hearing loss, decreased learning capabilities and damage to the eyes in laboratory animal tests. Deliberate inhalation of high concentrations of toluene vapor by pregnant women has been shown to adversely affect the fetus. These fetotoxic effects include intrauterine growth retardation and delayed postnatal development. The fetotoxic effects of toluene seen in laboratory animals are similar to those seen in humans. Ingestion of toluene in laboratory animals caused mild gastritis and harmful effects on the respiratory system, kidneys, liver and heart. Ingestion in laboratory animals also caused harmful effects on the central nervous system and death. It has also been reported that subchronic ingestion of toluene caused brain and bladder damage in laboratory animals. Due to synergistic effects, the toxicity of toluene may be enhanced by exposure to n-hexane, benzene, xylene, acetylsalicylic acid and chlorinated hydrocarbons. The literature reports that toluene is an aspiration hazard, that acute oral exposure resulted in reversible visual dysfunction, and that chronic exposure has caused altered immune function in animals. Toluene is a chemical known to the State of California to cause reproductive toxicity.

Acute overexposure to maleic anhydride vapors may cause severe eye, nasal and respiratory irritation. Repeated exposure to the vapor may cause lung disease as well as respiratory or skin sensitization. The oral (rat) and dermal (rabbit) LD50 values are 1090 mg/kg and 2620 mg/kg, respectively. The 1 hour inhalation LC50-value was > 4.35 mg/L in a rat study. Repeated exposure may lead to damage to the respiratory tract or kidneys. Clastogenic effects were seen during an in vitro study (ambiguous results), but the in vivo follow up study didn't confirm these findings. No carcinogen or teratogenic effects are expected.

Cobalt 2-ethylhexanoate has an oral (rat) LD50 of 3129 mg/kg of body weight in female rats with an approx. 95% confidence interval of 1750 mg/kg (lower) to 5000 mg/kg (upper). The dermal (rabbit) LD50 is estimated > 2000 mg/kg. Cobalt 2-ethylhexanoate is irritating to eyes. Repeated or prolonged contact with cobalt compounds can cause dermal sensitization or photosensitized dermatitis. Suspected of damaging fertility impairment in males. Skeletal malformations were observed in a prenatal developmental toxicity study. Occupational exposure to cobalt compounds (ingestion or inhalation) can cause systemic toxic effects, including cardiomyopathy and peripheral neuritis.

Acute overexposure to maleic acid produces marked irritation of the skin and mucous membranes and moderate to severe irritation of the eye. Prolonged and repeated contact may cause allergic skin reaction. Exposure of rats to 0.72 mg/L vapor via inhalation produced generalized inactivity, hyperpnea and sedation within 15 minutes. The oral LD50 in rats is 481-708 mg/kg, and the dermal LD50 in rabbits is 1560-2620 mg/kg.

Inventory Multi-tiered Assessment and Prioritization (IMAP)
This product contains one or more Stage One Chemical(s).

Component / CAS No.	Stage One Chemicals
Styrene 100-42-5	Tier II Final (Human Health);Remaining Priority (Environment) NICNAS holds data;Concern has been raised overseas
Toluene 108-88-3	Tier II Final (Human Health);Remaining Priority (Environment) NICNAS holds data;Concern has been raised overseas
Maleic anhydride 108-31-6	Tier II Final (Human Health);Tier I Final (Environment) NICNAS holds data

12. ECOLOGICAL INFORMATION

Overall Environmental Toxicity: Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

The ecological assessment for this material is based on an evaluation of its components.

ECOTOXICITY
Not available

BIOACCUMULATIVE POTENTIAL
Not available

PERSISTENCE AND DEGRADABILITY
Not available

MOBILITY IN SOIL
Not available

OTHER ADVERSE EFFECTS

HAZARD TO THE OZONE LAYER
Not available

HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Fish
Styrene (100-42-5)	LC50 = 3.24 - 4.99 mg/L - Pimephales promelas (96h)
Toluene (108-88-3)	LC50 = 5.5 mg/L - Oncorhynchus kisutch (96h) NOEC = 1.4 mg/L - Oncorhynchus kisutch (40d)
Maleic anhydride (108-31-6)	LC50 = 75 mg/L - Lepomis macrochirus (96hrs) LC50 = 75 mg/L - Oncorhynchus mykiss (96hrs)
Cobalt bis(2-ethylhexanoate) (136-52-7)	LC50 = 1.5 mg/L of Co - Onchorhynchus mykiss - 96hrs EC10 = 0.35mg/L of Co - Pimephales promelas - 34d
Maleic acid (110-16-7)	LC50 = 5 mg/L - Pimephales promelas (96h)

Component / CAS No.	Toxicity to Water Flea
Styrene (100-42-5)	EC50 = 4.7 mg/L - Daphnia magna (48h) NOEC = 1.01 mg/L - Daphnia magna (21d) LC50 = 9.5 mg/L - Hyalella azteka (96h)
Toluene (108-88-3)	EC50 = 3.78 mg/L - Ceriodaphnia dubia (48h) NOEC = 0.74 mg/L - Ceriodaphnia dubia(7d)
Maleic anhydride (108-31-6)	EC50 = 42.81 mg/L - Daphnia magna (48hrs) NOEC = 10 mg/L - Daphnia magna (21d)
Cobalt bis(2-ethylhexanoate) (136-52-7)	EC50 = 0.61 mg/L of Co - cladoceran, Ceriodaphnia dubia - 48hrs EC10 - 7.55 µg/L of Co - Daphnia magna - 21d
Maleic acid (110-16-7)	EC50 250 - 400 mg/L - Daphnia magna (48h)

Component / CAS No.	Toxicity to Algae
Styrene (100-42-5)	EC50 = 6.3 mg/L - Pseudokirchneriella subcapitata (96h)
Toluene (108-88-3)	EC50 = 134 mg/L - Chlorella vulgaris (3h) - reduced photosynthesis rate NOEC = 10 mg/L - Skeletonema costatum (72h)
Maleic anhydride (108-31-6)	EC50 = 74.32 mg/L - Pseudokirchneriella subcapitata (72hrs) EC10 = 11.8 mg/L - Pseudokirchnerella subcapitata (72hrs
Cobalt bis(2-ethylhexanoate) (136-52-7)	EC50 = 52 µg/L of Co - Lemna minor - 72hrs EC 10 = 10.4 µg/L of Co - Lemna minor - 72hrs
Maleic acid (110-16-7)	Not available

Component / CAS No.	Partition coefficient
Styrene (100-42-5)	2.96
Toluene (108-88-3)	2.73
Maleic anhydride (108-31-6)	log Kow = -2.16 (corresponding acid)
Cobalt bis(2-ethylhexanoate) (136-52-7)	Not available
Maleic acid (110-16-7)	-0.34

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods
The company encourages the recycle and reuse of products and packaging, where possible and permitted.

Product disposal
When recycle or reuse is not possible, the company recommends that our products, especially when classified as hazardous, be disposed of at approved facilities. All local and national regulations should be followed.

Packaging disposal
Handle contaminated packages in the same way as the product itself. Disposal of emptied and cleaned packaging must be made in accordance with applicable local and national regulations.

Disposal-relevant information
Do not release directly or indirectly to surface water, ground water, soil or public sewage system.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

Australia (ADG)

Dangerous Goods? X

PROPER SHIPPING NAME:	RESIN SOLUTION
Hazard Class:	3
UN Number:	UN1866
Packing Group:	III
Transport Label Required:	Flammable liquid
HAZCHEM Code:	•3Y
IERG:	14

IMO

Dangerous Goods? X

UN PROPER SHIPPING NAME:	RESIN SOLUTION
Transport Hazard Class:	3
UN Number:	UN1866
Packing Group:	III
Transport Label Required:	Flammable liquid

ICAO / IATA

Dangerous Goods? X

UN PROPER SHIPPING NAME:	RESIN SOLUTION
Transport Hazard Class:	3
Packing Group:	III
UN Number:	UN1866
Transport Label Required:	Flammable liquid

SPECIAL PRECAUTIONS FOR USER
Protect against external heat sources above +35°C.

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

Ozone Depleting Substances (Regulation (EC) No 1005/2009): Not applicable
Persistent Organic Pollutants (Regulation (EC) No 850/2004): Not applicable

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)
Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)
Poison Schedule Number: S5

Component / CAS No.	Prohibited Carcinogens	Restricted substance
Cobalt bis(2-ethylhexanoate) 136-52-7		For abrasive blasting at a concentration of >0.1% as Cobalt

Inventory Information

Australia: All components of this product are included in the Australian Inventory of Industrial Chemicals (AIIC) or are not required to be listed on AIIC.

New Zealand: This product is approved or exempt under the Hazardous Substances and New Organisms (HSNO) Act.

European Economic Area (including EU): When purchased and shipped from an Allnex legal entity based in the EEA (EU or Norway), this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt and/or registered.

United States (USA): All components of this product are designated as “Active” on the TSCA Inventory or are not required to be listed.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

Japan: One or more components of this product are NOT included on the Japanese (ENCS and/or ISHL) inventories.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory. When purchased from Allnex Korea or Chemart distributor this product is compliant with the ARECs (the Act on the Registration and Evaluation, etc. of Chemical Substances). All its components are either excluded, exempt, pre-notified and/or registered. When purchased from another allnex entity, please contact PSRA-KREACH@allnex.com to check the possibility to be covered by our Only Representative.

Philippines: One or more components of this product are NOT included on the Philippine (PICCS) inventory.

Taiwan: All components of this product are included in the Taiwan chemical substance inventory or are not required to be listed on the Taiwan chemical substance inventory (TCSI).

16. OTHER INFORMATION

Reasons for Issue: Revised Section 9

Date Prepared: 22-Mar-2023
Date of last significant revision: 06-Mar-2022

References
Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice
Globally Harmonised System of classification and labelling of chemicals (GHS)
Workplace Exposure Standards for Airborne Contaminants, Safe Work Australia
American Conference of Industrial Hygienists (ACGIH)
Australian Code for the Transport of Dangerous Goods by Road & Rail
Regulation (EC) No 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer
Regulation (EC) No 850/2004 and amendments of the European Parliament and of the Council on persistent organic pollutants

Component - Hazard Statements
Styrene
- H226 - Flammable liquid and vapour.
- H304 - May be fatal if swallowed and enters airways.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H332 - Harmful if inhaled.
- H335 - May cause respiratory irritation.
- H361d - Suspected of damaging the unborn child.
- H372 - Causes damage to organs through prolonged or repeated exposure.
- H401 - Toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.

Toluene
- H225 - Highly flammable liquid and vapour.
- H304 - May be fatal if swallowed and enters airways.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H336 - May cause drowsiness or dizziness.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H361d - Suspected of damaging the unborn child.
- H401 - Toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.

Maleic anhydride
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H372 - Causes damage to organs through prolonged or repeated exposure.
- H402 - Harmful to aquatic life.

Cobalt bis(2-ethylhexanoate)
- H360 - May damage fertility or the unborn child.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H400 - Very toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.

Maleic acid
- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.

Emergency phone numbers for other regions

Asia Pacific

China (PRC): +86(0)532 8388 9090 (NRCC)
India: 000 800 100 7479 (toll free) or +65 3158 1198 (Carechem 24)
Indonesia: 007 803 011 0293 (Carechem 24)
Japan: 0120 015 230 (toll free) (Carechem24)
Korea: +82 2 3479 8401 (Carechem 24)
Malaysia: +60 3 6207 4347 (Carechem 24)
New Zealand: +64 0800 803 002 (Allnex New Zealand)
Philippines: +63 2 231 2149 (Carechem 24)
Taiwan: +886 2 8793 3212 (Carechem 24)
Vietnam: +84 8 4458 2388 (Carechem 24)
All Others: +65 3158 1074 (Carechem 24)

Europe
+44 (0) 1235 239 670 (Carechem 24)

Middle East, Africa
+44 (0) 1235 239 671 (Carechem 24)

Latin America
Brazil: +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24)
Chile: +56 2 2582 9336 (Carechem 24)
Mexico and all others: +52-555-004-8763 (Carechem 24)

Canada and USA
+1-866-928-0789 (toll free) or +1-215-207-0061 (Carechem 24 - Allnex29003-NCEC)

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