Safety Data Sheet - CIPP Resin

1. IDENTIFICATION OF THE SUBSTANCE /MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier	Product Name	Polyester CIPP Resin (Filled & Unfilled)
	SAP IDs	193313 ; 193314; 193315; 193595; 204898; 206488
	Chemical Family	Polyester Resin
1.2 Relevant identified uses of the substance or mixture and uses advised against	Recommended Use	Laminating Resin
	Sector of Uses [SU]	SU3 - Industrial uses SU12 - Manufacture of plastics products, including compounding and conversion SU22 - Professional uses
	Product categories [PC]	PC32 - Polymer preparations and compounds
	Process categories [PROC]	PROC1 - Use in closed process, no likelihood of exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC7 - Industrial spraying PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10 - Roller application or brushing PROC11 - Non industrial spraying PROC13 - Treatment of articles by dipping and pouring PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising PROC15 - Use as laboratory reagent
	Uses advised against	No information available

1. IDENTIFICATION OF THE SUBSTANCE /MIXTURE AND OF THE COMPANY/UNDERTAKING CONT'D.

1.3. Details of the supplier of the safety data sheet

Company	S1E Ltd
Address	Cooper House, Unit 2 Spring Hill Road, Park Springs, Grimethorpe, Barnsley S72 7BQ
Email	contact@s1e.co.uk
Website	www.s1e.co.uk
Telephone	+44 (0) 1226 397 015
Telefax	+44 (0) 1226 447 300
Emergency Tel. No.	+44 (0) 1235 239670

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture acc to Regulation (EC) No. 1272/2008 (CLP)

Acute toxicity - Inhalation (Vapours)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Chronic aquatic toxicity	Category 3
Flammable liquid	Category 3

2.2 Label elements

2.2.1 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Hazard pictogram(s)

Signal word(s)

Danger: Contains Styrene

Hazard statement(s)

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 hearing through prolonged or repeated exposure if inhaled
H412 - Harmful to aquatic life with long lasting effects
H226 - Flammable liquid and vapour
50.9 % of the mixture consists of ingredient(s) of unknown toxicity
52.2 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

2. HAZARDS IDENTIFICATION CONT'D.

Precautionary statement(s)	P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking P260 - Do not breathe mist/vapours/spray P280 - Wear protective gloves/protective clothing/eye protection/face protection P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing P302 + P352 - IF ON SKIN: Wash with plenty of soap and water P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
2.3 Other Hazards	No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical Name	EC No	CAS No.	Weight %	EU - GHS Substance Classification	REACH Registration No
Styrene	202-851-5	100-42-5	46 - 50	Skin Irrit. 2 (H315) Flam. Liq. 3 (H226) Eye Irrit. 2 (H319) Acute Tox. 4 (H332) STOT SE 3 (H335) STOT RE 1 (H372) Repr. 2 (H361d) Asp. Tox. 1 (H304) Aquatic Chronic 3 (H412)	01-2119457861-32

For the full text of the H-Statements mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact	Immediately flush eyes for at least 15 minutes. Get medical attention.
Skin contact	Wash off with warm water and soap. Remove contaminated clothing and shoes. If skin irritation persists, call a doctor. Wash contaminated clothing before reuse.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
Inhalation	Remove to fresh air. Keep patient warm and at rest. If breathing is laboured, administer oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
4.2. Most important symptoms and effects, both acute and delayed	Irritating to eyes, respiratory system and skin. Harmful by inhalation, in contact with skin and if swallowed.
4.3. Indication of any immediate medical attention and special treatment needed	**Notes to Physician:** Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Unsuitable extinguishing media	No information available

5.2 Special hazards arising from the substance or mixture

None in particular.

5.3 Advice for firefighters

Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	Remove all sources of ignition. Evacuate personnel to safe areas. Avoid contact with skin and eyes. Use personal protective equipment as required. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. All equipment used when handling the product must be grounded.
6.2 Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains.
6.3 Methods and material for containment and cleaning up	A vapour suppressing foam may be used to reduce vapours. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use clean non-sparking tools to collect absorbed material.
6.4 Reference to other sections	See Section 12 for more information

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling : Do not breathe vapour or mist. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash it before reuse. Ensure adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion-proof equipment. Consult your supplier of promoters and catalysts for additional instructions on proper mixing and usage. Empty containers may retain product residue (liquid and/or vapor). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose these containers to heat, flame, sparks, static electricity, or other sources of ignition as the container may explode and may cause injury or death. Empty drums should be completely drained and properly bunged. Empty drums should be promptly returned to a drum reconditioner or properly disposed. Do not use compressed air for filling, discharging or handling.

General Hygiene Considerations : Handle in accordance with good industrial hygiene and safety practice.

7. HANDLING AND STORAGE CONT'D.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. No smoking. Protect from direct sunlight. Store away from incompatible materials.
Keep containers tightly closed in a cool, well-ventilated place. To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 25°C.

7.3 Specific end use(s)

Exposure scenario: No information available
Other Guidelines: No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Occupational Exposure Limits Components with workplace control parameters: Styrene

Austria	80 ppm STEL 340 mg/m3 STEL 20 ppm TWA 85 mg/m3 TWA
Belgium	25 ppm TWA 108 mg/m3 TWA (skin) 80 ppm STEL 346 mg/m3 STEL
Bulgaria	85.0 mg/m3 TWA 215.0 mg/m3 STEL
Croatia	250 ppm STEL KGVI 1080 mg/m3 STEL KGVI 100 ppm TWA GVI 430 mg/m3 TWA GVI
Czech Republic	400 mg/m3 Ceiling 100 mg/m3 TWA (skin)
Denmark	25 ppm Ceiling 105 mg/m3 Ceiling (skin)
Estonia	20 ppm TWA 90 mg/m3 TWA 50 ppm STEL 200 mg/m3 STEL (skin)
Finland	20 ppm TWA 86 mg/m3 TWA 100 ppm STEL 430 mg/m3 STEL
France	23.3 ppm TWA 100 mg/m3 TWA 46.6 ppm STEL 200 mg/m3 STEL
Germany	20 ppm TWA 86 mg/m3 TWA
Greece	100 ppm TWA 425 mg/m3 TWA 250 ppm STEL 1050 mg/m3 STEL
Hungary	50 mg/m3 TWA AK 50 mg/m3 STEL CK
Ireland	20 ppm TWA 85 mg/m3 TWA 40 ppm STEL 170 mg/m3 STEL
Italy	20 ppm TWA 85 mg/m3 TWA 40 ppm STEL 170 mg/m3 STEL
Latvia	10 mg/m3 TWA 30 mg/m3 STEL
Lithuania	20 ppm TWA (IPRD) 90 mg/m3 TWA (IPRD) 10 ppm TWA (IPRD) 50 ppm STEL (TPRD) 200 mg/m3 STEL (TPRD) (skin)
Norway	25 ppm TWA 105 mg/m3 TWA 25 ppm STEL 105 mg/m3 STEL
Poland	200 mg/m3 STEL 50 mg/m3 TWA
Portugal OELs Data	20 ppm 40 ppm STEL
Romania	12 ppm TWA 50 mg/m3 TWA 35 ppm STEL 150 mg/m3 STEL
Russia	10 mg/m3 TWA (vapor) 30 mg/m3 STEL (vapor)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION CONT'D.

Slovakia	20 ppm TWA 86 mg/m3 TWA 200 mg/m3 Ceiling
Slovenia	20 ppm TWA 86 mg/m3 TWA 80 ppm STEL 344 mg/m3 STEL
Spain	20 ppm TWA 86 mg/m3 TWA 40 ppm STEL 172 mg/m3 STEL
Sweden	10 ppm LLV 43 mg/m3 LLV 20 ppm STV 86 mg/m3 STV (skin)
Switzerland	40 ppm STEL 170 mg/m3 STEL 20 ppm TWA 85 mg/m3 TWA
United Kingdom	100 ppm TWA 430 mg/m3 TWA 250 ppm STEL 1080 mg/m3 STEL
ACGIH - TLV	20 ppm TWA 40 ppm STEL

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
TLV®	Threshold Limit Value
TWA	Time-Weighted Average
STEL	Short Term Exposure Limit
MAK	Maximum Occupational Exposure Limits
SKIN	Skin Absorption

Biological Occupational Exposure Limits Chemical Name: Styrene

Bulgaria	BEI: 600 mg/g Creatinine, DETERMINANT: Mandelic acid and Phenylglyoxylic acid - together in urine, SAMPLING TIME: at the end of exposure or end of shift, in remote exposure - after several shifts
Finland	BEI: 1.2 mmol/L, DETERMINANT: MAPGA in urine, SAMPLING TIME: prior to shift, NOTE: MAPGA equals sum of urinary Mandelic and Phenylglyoxylic acids
France	BEI: 0.55 mg/L, DETERMINANT: Styrene in venous blood, SAMPLING TIME: end of shift, NOTE: Semi-quantitative (ambiguous interpretation) BEI: 0.02 mg/L, DETERMINANT: Styrene in venous blood, SAMPLING TIME: prior to shift, NOTE: Semi-quantitative (ambiguous interpretation) BEI: 800 mg/g creatinine, DETERMINANT: Mandelic acid in urine, SAMPLING TIME: end of shift, NOTE: Non-specific (observed after the exposure to other substances) BEI: 300 mg/g creatinine, DETERMINANT: Mandelic acid in urine, SAMPLING TIME: prior to shift, NOTE: Non-specific (observed after the exposure to other substances) BEI: 240 mg/g creatinine, DETERMINANT: Phenylglyoxylic acid in urine, SAMPLING TIME: end of shift, NOTE: Non-specific (observed after the exposure to other substances) BEI: 100 mg/g creatinine, DETERMINANT: Phenylglyoxylic acid in urine, SAMPLING TIME: prior to shift, NOTE:
Germany	BEI: 600 mg/g, DETERMINANT: Mandelic acid plus Phenylglyoxylic acid in urine, SAMPLING TIME: end of shift, NOTE: measured as mg/g Creatinine BEI: 600 mg/g, DETERMINANT: Mandelic acid plus Phenylglyoxylic acid in urine, SAMPLING TIME: end of several shifts, NOTE: measured as mg/g Creatinine; for long-term exposures
Latvia	BEI: 0.8 g/g Creatinine, DETERMINANT: Mandelic acid in urine, SAMPLING TIME: end of shift BEI: 0.55 mg/l, DETERMINANT: Styrene in blood, SAMPLING TIME: end of shift

8. EXPOSURE CONTROLS/PERSONAL PROTECTION CONT'D.

Romania	BEI: 800 mg/g creatinine, DETERMINANT: Mandelic acid in urine, SAMPLING TIME: end of shift BEI: 300 mg/g creatinine, DETERMINANT: Mandelic acid in urine, SAMPLING TIME: beginning of second shift BEI: 100 mg/g creatinine, DETERMINANT: Phenylglyoxylic acid in urine, SAMPLING TIME: end of shift BEI: 100 mg/g creatinine, DETERMINANT: Phenylglyoxylic acid in urine, SAMPLING TIME: beginning of second shift BEI: 0.55 mg/L, DETERMINANT: Styrene in blood, SAMPLING TIME: end of shift BEI: 0.02 mg/L, DETERMINANT: Styrene in blood, SAMPLING TIME: beginning of second shift
Slovakia	BEI: 600 mg/g creatinine, DETERMINANT: Mandelic acid and phenylglycolic acid in urine, SAMPLING TIME: after all work shifts, NOTE: for long-term exposure BEI: 600 mg/g creatinine, DETERMINANT: Mandelic acid and phenylglycolic acid in urine, SAMPLING TIME: end of exposure or work shift, NOTE:

Chemical Name	Derived No Effect Level (DNEL)	Predicted No Effect Concentration (PNEC)
Styrene	End Use: Workers Exposure Route: Inhalation Exposure Type: Acute, systemic effects Value: 289 mg/m3 (68 ppm)	Fresh water Value: 0.028 mg/l Assessment factor: 10
	End Use: Workers Exposure Route: Inhalation Exposure Type: Acute, local effects Value: 306 mg/m3 (72 ppm)	Sea water Value: 0.0028 mg/l Assessment factor: 100
	End Use: Workers Exposure Route: Inhalation Exposure Type: Long term, systemic effects Value: 85 mg/m3 (20 ppm)	Water Value: 0.04 mg/l Intermittent Releases Assessment factor: 100
	End Use: Workers Exposure Route: Dermal Exposure Type: Long term, systemic effects Value: 406 mg/kg bw/day	Fresh water sediment Value: 0.614 mg/kg dw
	End Use: General Population Exposure Route: Inhalation Exposure Type: Acute, systemic effects Value: 174.25 mg/m3 (41 ppm)	Sea sediment Value: 0.0614 mg/kg dw
	End Use: General Population Exposure Route: Inhalation Exposure Type: Acute, local effects Value: 182.75 mg/m3 (43 ppm)	Sewage Treatment Plant Value: 5 mg/l Assessment factor: 100
	End Use: General Population Exposure Route: Inhalation Exposure Type: Long term, systemic effects Value: 10.2 mg/m3 (2.4 ppm)	Soil Value: 0.2 mg/kg dw
	End Use: General Population Exposure Route: Dermal Exposure Type: Long term, systemic effects Value: 343 mg/kg bw/day	

8. EXPOSURE CONTROLS/PERSONAL PROTECTION CONT'D.

8.2 Exposure Controls

8.2.1 Appropriate engineering controls

Use general ventilation to maintain airborne concentrations to levels that are below regulatory and recommended occupational exposure limits. Local ventilation may be required during certain operations.

8.2.2 Personal protection equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166.
If splashes are likely to occur:. Tightly fitting safety goggles (EN166).
Ensure that eyewash stations and safety showers are close to the workstation location.

Skin protection

Impervious clothing.

Hand protection

Protective gloves complying with EN 374. Wear protective nitrile rubber or Viton™ gloves.
Gloves made of nitrile rubber or polyvinyl chloride (PVC) may be used for splash protection and brief or intermittent contact with styrenated polyester resin. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Respiratory protection

None required if hazards have been assessed and airborne concentrations are maintained below the exposure limits listed in Section 8. Wear an approved air-purifying respirator with organic vapor cartridges and particulate filters where airborne concentrations may exceed exposure limits in Section 8 and/or there is exposure to dust or mists due to sanding, grinding, cutting, or spraying. Use an approved positive-pressure air-supplied respirator with emergency escape provisions if there is any potential for an uncontrolled release, airborne concentrations are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Recommended Filter Type

Type A (EN141) and Type P2 (EN143)

8.2.3 Environmental Exposure Controls

Local authorities should be advised if significant spillages cannot be contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Yellow
Physical State	Liquid
Odour	Pungent
Odour Threshold	0.2ppm (Styrene)
pH (Value)	Not Applicable
Melting Point (°C) / Freezing Point (°C)	-30°C (Styrene)
Boiling point/boiling range (°C)	146°C (Styrene)
Flash Point (°C)	32°C
Evaporation Rate	0.49 (BuAc=1) (Styrene)
Flammability Limit in Air	
Upper Limit	6.1% (Styrene)
Lower Limit	1.1% (Styrene)

9.1 Information on basic physical and chemical properties

Vapour Pressure	6.7 hPa (Styrene) @ 20°C
Vapour Density	3.6 (Air = 1) (Styrene)
Specific Gravity	1.07 - 1.11 @ 23°C
Solubility in water	Insoluble
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	490°C (Styrene)
Decomposition temperature	No information available
Viscosity	3300 - 3600 mPa·s @ 23°C
Explosive properties	No information available
Oxidising Properties	No information available
9.2 Other Information	No information available

10. STABILITY AND REACTIVITY

10.1 Reactivity	Unstable upon depletion of inhibitor.
10.2 Chemical stability	Stable under normal conditions. Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	Polymerisation can occur. Hazardous polymerization will occur if contaminated with peroxides, metal salts and polymerization catalysts. Hazardous polymerization may occur upon depletion of inhibitor - may cause heat and pressure build-up in closed containers. Product will undergo hazardous polymerization at temperatures above 150 F (65 C).
10.4 Conditions to avoid	Heat, flames and sparks. Contamination by those materials referred to under Incompatible materials. Unstable upon depletion of inhibitor. Elevated temperature.
10.5 Incompatible materials	Strong acids. Strong oxidising agents. Metal salts. Polymerization initiators. Copper. Copper alloys. Brass.
10.6 Hazardous Decomposition Product(s)	CHydrocarbons. Carbon monoxide. Carbon dioxide (CO2). Thermal decomposition can lead to release of irritating and toxic gases and vapours.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Oral LD50	= 5000 mg/kg (Rat)
	Dermal LD50	> 2000 mg/kg (Rat)
	Inhalation LC50	= 11.8 mg/l (4 H) (Rat)
Ingestion	Harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.	
Inhalation	Harmful by inhalation. May cause irritation of respiratory tract. Inhalation of high vapor concentrations can cause central nervous system depression and narcosis.	
Skin Contact	Causes skin irritation. Prolonged skin contact may defat the skin and produce dermatitis.	
Eye Contact	Irritating to eyes.	
Irritation	Irritating to eyes and skin.	
Corrosivity	Not corrosive	
Sensitisation	Not sensitizing.	

Carcinogenic Effects	There is no convincing evidence that styrene possesses significant carcinogenic potential in humans.
Repeated dose toxicity	In humans, styrene may cause a transient decrease in color discrimination and effects on hearing. Repeated or prolonged exposure may cause skin irritation and dermatitis, due to defatting properties of the product. May cause damage to the liver, eyes, brain, respiratory system, central nervous system through prolonged or repeated exposure if inhaled.
Mutagenic effects	Styrene has given mixed positive and negative results in a number of mutagenicity tests. Styrene was not mutagenic without metabolic activation but gave negative and positive mutagenic results with metabolic activation.
Target organ(s)	No information available, Liver, Central nervous system (CNS), Respiratory system.

Numerical measures of toxicity - Product Information

Unknown acute toxicity 50.9 % of the mixture consists of ingredient(s) of unknown toxicity

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

ATEmix (oral)	4962 mg/kg
ATEmix (dermal)	2057 mg/kg
ATEmix (inhalation-dust/mist)	2849.6 mg/l
ATEmix (inhalation-vapour)	12.1 mg/l

12. ECOLOGICAL INFORMATION

12.1 Toxicity	Styrene
Algae	EC50 = 1.4 mg/L (Pseudokirchneriella subcapitata) (72h) EC50 0.46 - 4.3 mg/L (Pseudokirchneriella subcapitata) (72h)
Fish	LC50 3.24 - 4.99 mg/L (Pimephales promelas) (96 h) flow-through LC50 19.03 - 33.53 mg/L (Lepomis macrochirus) (96 h) static LC50 6.75 - 14.5 mg/L (Pimephales promelas) (96 h) static LC50 58.75 - 95.32 mg/L (Poecilia reticulata) (96 h) static
Aquatic Invertebrates	EC50 3.3 - 7.4 mg/L (Daphnia magna) (48h)
12.2 Persistence and degradability	No information available.
12.3 Bioaccumulative potential	Not likely to bioaccumulate.
Styrene	log Kow 2.95 Bioconcentration factor (BCF) 74
12.4 Mobility in soil	No information available.
12.5. Results of PBT and vPvB assessment	This preparation contains no substance considered to be persistent, bio-accumulating nor toxic (PBT) This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)
12.6. Other adverse effects	No information available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from residues/unused products	This material and its container must be disposed of as hazardous waste. Dispose of contents/containers in accordance with local regulations. Can be incinerated, when in compliance with local regulations.
Contaminated packaging	Empty containers should be taken for local recycling, recovery or waste disposal.
EWC Waste Disposal No	07 00 00 WASTES FROM ORGANIC CHEMICAL PROCESSES 07 02 00 Wastes from MFSU of plastics, synthetic rubber and man-made fibres 07 02 99 Wastes not otherwise specified

14. TRANSPORT INFORMATION

ADR/RID

UN-No	UN1866
Proper Shipping Name	RESIN SOLUTION
Hazard Class	3
Packing Group	III
Environmental hazard	None
Classification Code	F1
Hazard identification number (Kemler No.)	30
Tunnel restriction code	D/E
ADR Exception	This material meets the viscosity criteria specified in ADR 2.2.3.1.5 and may be classed as "not dangerous" when packaged in containers of less than 450 liters.

IMDG/IMO

UN-No	UN1866
Proper Shipping Name	RESIN SOLUTION
Hazard Class	CLASS 3
Packing Group	PG III
Environmental hazard	None
EmS-No	F-E, S-E
IMDG Exception	This material meets the viscosity criteria specified in IMDG Code 2.3.2.5 and may be exempt from the marking, labelling and package testing requirements if transported in containers of 30 liters or less.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

IATA

UN-No	UN1866
Proper Shipping Name	RESIN SOLUTION
Hazard Class	3
Packing Group	III
Environmental hazard	None
Packing Instructions	355; 366

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

Denmark

List of substances and processes that are considered to be carcinogenic

	Chemical Name	Status
	Styrene (CAS #: 100-42-5)	Present
Additional information	Must not be used by youngsters under the age of 18, ref. the notification from the Ministry of Labour regarding work by youngsters. The user must have undergone special training approved by the Labour Inspection Authority (AT) in order to work with products containing carcinogenic substances.	

15. REGULATORY INFORMATION CONT'D.

Germany	
WGK Classification (VwVwS)	Hazardous to water/Class 2
Netherlands	No information available
Water Hazard Class	10-May cause long-term adverse effects in the aquatic environment.
International Inventories	
TSCA Inventory Status:	This material is supplied under the Research and Development Exemption (Section (5)(h)(3)), of the US Toxic Substances Control Act (TSCA). This material contains a component that is NOT listed on the TSCA inventory. It may be used ONLY for research and development purposes.
Canadian Inventory Status:	This material contains components that are NOT listed on the Canadian Domestic Substances List (DSL).
Australian Inventory Status:	This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances.
Korean Inventory Status:	This product contains one or more chemicals currently not on the Korean Chemical Substances List.
Philippine Inventory:	This product contains one or more chemicals currently not on the Philippine Inventory of Chemicals and Chemical Substances.
Japan ENCS:	This product contains one or more chemicals currently not on the Japanese Inventory of Existing and New Chemical Substances.
Chinese IECS:	This product contains only chemicals that are currently listed on the Chinese Inventory of Existing Chemical Substances.
New Zealand Inventory:	This product contains one or more chemicals currently not on the New Zealand Inventory of Chemicals.
Product Registrations	
Norway	Not applicable

16. OTHER INFORMATION

Classification Procedure		Reproductive Toxicity	Weight of evidence
Acute toxicity - Inhalation (Vapours)	Calculation method	Specific target organ toxicity (single exposure)	Calculation method
Acute toxicity - Inhalation (Dusts/Mists)	Calculation method	Specific target organ toxicity (repeated exposure)	Calculation method
Skin corrosion/irritation	Calculation method	Chronic aquatic toxicity	Calculation method
Serious eye damage/eye irritation	Calculation method	Flammable liquid	On basis of test data

16. OTHER INFORMATION CONT'D.

Full text of H-Statements referred to under sections 2 and 3

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 hearing through prolonged or repeated exposure if inhaled
H412	Harmful to aquatic life with long lasting effects

Key literature references and sources for data

Denmark Arbejdstilsynet Order no. 908 of 27 September 2005 with subsequent amendments

Prepared by	Veronica Brophy
Revision Date	15.11.19
Reason for Revision	New
Former Date	New

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