



SAFETY DATA SHEET	Revision Date: 31.12.2019
	Print Date: 13.02.2020
	SDS Number: R0401425
General Purpose Polyester Laminating resin	Version: 3.2

Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS_GB

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : General Purpose Polyester Laminating Resin

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Reserved for industrial and professional use.

Restrictions on use : Consumer use

1.3 Details of the supplier of the safety data sheet

Easy Composites Ltd
Unit 39 Park Hall Business Village
Stoke on Trent, Staffordshire
ST3 5XA. UK.

safety@easycomposites.co.uk

1.4 Emergency telephone number

+44(0) 1782 454499 (office hours only)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Reproductive toxicity, Category 2	H361d: Suspected of damaging the unborn child.



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Specific target organ toxicity - single exposure, Category 3, Respiratory system

H335: May cause respiratory irritation.

Specific target organ toxicity - repeated exposure, Category 1, Auditory organs

H372: Causes damage to organs through prolonged or repeated exposure if inhaled.

Long-term (chronic) aquatic hazard, Category 3

H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements :

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs (Auditory organs) through prolonged or repeated exposure if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:	
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.



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Hazardous components which must be listed on the label:

Styrene

Precautionary statements : Keep dust/air mixtures away from ignition sources.

Additional Labelling:

EUH208 Contains cobalt bis(2-ethylhexanoate). May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Additional advice

No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Static Accumulator

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Styrene	100-42-5 202-851-5	Flam. Liq.3; H226 Acute Tox.4; H332 Skin Irrit.2; H315 Eye Irrit.2; H319 Repr.2; H361d STOT SE3; H335 STOT RE1; H372 Asp. Tox.1; H304 Aquatic Chronic3; H412	>= 40,00 - < 50,00
N,N-diethylaniline	91-66-7 202-088-8	Acute Tox.3; H301 Acute Tox.3; H331 Acute Tox.3; H311 STOT RE2; H373 Aquatic Chronic2; H411	>= 0,10 - < 0,25
cobalt bis(2-ethylhexanoate)	136-52-7 205-250-6	Eye Irrit.2; H319 Skin Sens.1A; H317	>= 0,025 - < 0,10



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	01-2119524678-29-XXXX	Repr.1B; H360Fd Aquatic Acute1; H400 Aquatic Chronic3; H412	
2-methylhydroquinone	95-71-6 202-443-7 05-2114477355-41-xxxx	Acute Tox.4; H302 Skin Irrit.2; H315 Eye Irrit.2; H319 Aquatic Acute1; H400 Aquatic Chronic1; H410	$\geq 0,0025 - < 0,025$
Substances with a workplace exposure limit :			
Amorphous colloidal silica	112945-52-5 231-545-4		$\geq 1,00 - < 2,50$

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Move to fresh air.
IF INHALED: Call a POISON CENTER/ doctor if you feel unwell.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
If on skin, rinse well with water.
Wash contaminated clothing before re-use.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.


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Protect unharmed eye.

If swallowed : Obtain medical attention.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
confusion

Risks : Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
Suspected of damaging the unborn child.
Causes damage to organs through prolonged or repeated exposure if inhaled.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No hazards which require special first aid measures.

SECTION 5: Firefighting measures
5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : High volume water jet


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5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Hydrocarbons

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures
6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.
Remove all sources of ignition.
Use personal protective equipment.
Ensure adequate ventilation.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Comply with all applicable federal, state, and local regulations.
Suppress (knock down) gases/vapours/mists with a water spray jet.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible


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absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

SECTION 7: Handling and storage
7.1 Precautions for safe handling

- Advice on safe handling : Open drum carefully as content may be under pressure.
 Avoid formation of aerosol.
 Provide sufficient air exchange and/or exhaust in work rooms.
 Do not breathe vapours/dust.
 Do not smoke.
 Container hazardous when empty.
 Take precautionary measures against static discharges.
 Avoid exposure - obtain special instructions before use.
 Avoid contact with skin and eyes.
 Smoking, eating and drinking should be prohibited in the application area.
 For personal protection see section 8.
 Dispose of rinse water in accordance with local and national regulations.
 Secondary operations, such as grinding and sanding, may produce dust.
 Maintain good housekeeping. Do not permit dust layers to accumulate, for example, on floors, ledges, and equipment, in order to avoid any potential for dust explosion hazards.
- Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). No sparking tools should be used. Keep away from open flames, hot surfaces and sources of ignition. Use only explosion-proof equipment.
- Hygiene measures : Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully
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resealed and kept upright to prevent leakage. Observe label precautions. No smoking.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection
8.1 Control parameters
Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Styrene	100-42-5	TWA	100 ppm 430 mg/m ³	GB EH40
		STEL	250 ppm 1.080 mg/m ³	GB EH40
Amorphous colloidal silica	112945-52-5	TWA (inhalable dust)	6 mg/m ³ inhalable dust (Silica)	GB EH40
		TWA (Respirable dust)	2,4 mg/m ³ Respirable dust (Silica)	GB EH40
cobalt bis(2-ethylhexanoate)	136-52-7	TWA	0,1 mg/m ³ (Cobalt)	GB EH40

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Styrene : End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Short-term exposure, Systemic effects
 Value: 289 mg/m³
 End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Short-term exposure, Local effects
 Value: 306 mg/m³
 End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Long-term exposure, Systemic effects



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Value: 85 mg/m³

End Use: Workers

Exposure routes: Skin contact

Potential health effects: Long-term exposure, Systemic effects

Value: 406 mg/kg

End Use: Consumers

Exposure routes: Inhalation

Potential health effects: Short-term exposure, Systemic effects

Value: 174,25 mg/m³

End Use: Consumers

Exposure routes: Inhalation

Potential health effects: Short-term exposure, Local effects

Value: 182,75 mg/m³

End Use: Consumers

Exposure routes: Skin contact

Potential health effects: Long-term exposure, Systemic effects

Value: 343 mg/kg

End Use: Consumers

Exposure routes: Ingestion

Potential health effects: Long-term exposure, Systemic effects

Value: 2,1 mg/kg

End Use: Consumers

Exposure routes: Inhalation

Potential health effects: Long-term exposure, Systemic effects

Value: 10,2 mg/m³
Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Styrene

: Fresh water

Value: 0,028 mg/l

Fresh water

Value: 0,04 mg/l Intermittent use/release

Marine water

Value: 0,014 mg/l

Sewage treatment plant

Value: 5 mg/l

Fresh water sediment

Value: 0,614 mg/kg

Marine sediment

Value: 0,307 mg/kg

Soil

Value: 0,2 mg/kg


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8.2 Exposure controls
Engineering measures

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Eye protection : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Use eye protection according to EN 166.

Hand protection

Material : Laminate (Barrier© or Silvershield©)
Break through time : 480 min
Glove thickness : > 0,5 mm

Remarks : The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Skin and body protection

: Wear as appropriate:
Impervious clothing
Safety shoes
Flame-resistant clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Discard gloves that show tears, pinholes, or signs of wear.

Protective clothing complying with EN 13688.
Safety shoes complying with EN ISO 20345.

Respiratory protection

: In the case of vapour formation use a respirator with an approved filter.

Filter type

: Organic vapour type (A)

Respiratory protection complying with EN 136.
Respiratory protection complying with EN 140.

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Respiratory protection complying with EN 14387.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	: liquid
Odour	: pungent
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: 145 °C Calculated Phase Transition Liquid/Gas
Flash point	: 29 °C Method: Seta closed cup Other information: Static Accumulating liquid
Evaporation rate	: 1 Ethyl Ether = 1
Flammability (solid, gas)	: May form combustible dust concentrations in air (during processing).
Upper explosion limit	: 6,1 %(V) GLP: Calculated Explosive Limit
Lower explosion limit	: 1,1 %(V) GLP: Calculated Explosive Limit
Vapour pressure	: 8,53248 hPa (25 °C) Calculated Vapor Pressure
Relative vapour density	: > 1 (Air = 1.0)
Relative density	: No data available


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Density	:	1,08 g/cm ³ (23 °C)
Solubility(ies)		
Water solubility	:	dispersible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20,5 mm ² /s (40 °C)
Flow time	:	> 0,011 h Method: ISO 2431
Oxidizing properties	:	No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity
10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Hazardous polymerisation may occur.
 Vapours may form explosive mixture with air.
 This product does not present a dust explosion hazard as delivered. However, fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard.


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10.4 Conditions to avoid

Conditions to avoid : Exposure to air.
Exposure to sunlight.

Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Acids
aluminum
aluminum chloride
Bases
Copper
Copper alloys
halogens
iron chloride
metal salts
Strong oxidizing agents
Peroxides

10.6 Hazardous decomposition products

Hazardous decomposition products : Hydrocarbons
Acetone
Carbon dioxide (CO₂)
Carbon monoxide

SECTION 11: Toxicological information
11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Components:

Styrene

Acute oral toxicity : LD50 Oral (Rat): > 2.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 11,8 mg/l, 2770 ppm
Exposure time: 4 h
Test atmosphere: vapour



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No observed adverse effect level (Humans): 100 ppm
Exposure time: 7 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Components:

N,N-diethylaniline

Acute oral toxicity

: LD50 (Rat): 606 mg/kg
Assessment: The component/mixture is classified as acute oral toxicity, category 3.

Acute inhalation toxicity

: LC50 (Rat): 1,92 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The component/mixture is classified as acute inhalation toxicity, category 3.

Acute dermal toxicity

: LD50 (Rat): > 5.000 mg/kg
Assessment: The component/mixture is classified as acute dermal toxicity, category 3.

Components:

cobalt bis(2-ethylhexanoate)

Acute oral toxicity

: LD50 (Rat, female): ca. 3.129 mg/kg

Acute inhalation toxicity

: LC50 (Rat): > 10 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Assessment: Not classified as acutely toxic by inhalation under GHS.

Acute dermal toxicity

: LD50 (Rabbit): > 5.000 mg/kg

Components:

2-methylhydroquinone

Acute oral toxicity

: LD50 (Mouse): > 400 mg/kg

LD50 (Rat): 754 mg/kg

Acute dermal toxicity

: LD50 (Guinea pig): > 1.000 mg/kg


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Assessment: Not classified as acutely toxic by dermal absorption under GHS.

Components:

Amorphous colloidal silica

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Assessment: Not classified as acutely toxic by dermal absorption under GHS.

Skin corrosion/irritation

Causes skin irritation.

Product:

Remarks: May cause skin irritation and/or dermatitis.

Result: Repeated exposure may cause skin dryness or cracking.

Components:

Styrene

Species: Rabbit

Result: Irritating to skin.

Species: human skin

Result: No skin irritation

N,N-diethylaniline

Species: Rabbit

Result: Slight, transient irritation

cobalt bis(2-ethylhexanoate)

Result: No skin irritation

2-methylhydroquinone

Result: Irritating to skin.

Amorphous colloidal silica

Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.


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Components:

Styrene

Result: Irritating to eyes.

Remarks: Vapour during processing may be irritating to the respiratory tract and to the eyes.

N,N-diethylaniline

Species: Rabbit

Result: Slight, transient irritation

cobalt bis(2-ethylhexanoate)

Species: Rabbit

Method: OECD Test Guideline 405

Result: Irritating to eyes.

2-methylhydroquinone

Result: Irritating to eyes.

Amorphous colloidal silica

Result: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

Styrene

Exposure routes: Skin contact

Species: Guinea pig

Assessment: Does not cause skin sensitisation.

Exposure routes: inhalation (vapour)

Species: Humans

Assessment: Does not cause respiratory sensitisation.

N,N-diethylaniline

Species: Guinea pig

Assessment: Does not cause skin sensitisation.

cobalt bis(2-ethylhexanoate)

Test Type: Local lymph node assay

Species: Mouse

Assessment: The product is a skin sensitiser, sub-category 1A.

Method: OECD Test Guideline 429

Remarks: Information given is based on data obtained from similar substances.

2-methylhydroquinone

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Exposure routes: Dermal
 Species: Guinea pig
 Assessment: Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified based on available information.

Components:

N,N-diethylaniline

Genotoxicity in vitro : Test Type: Ames test
 Test species: Salmonella typhimurium
 Metabolic activation: with and without metabolic activation
 Result: negative

cobalt bis(2-ethylhexanoate)

Genotoxicity in vitro : Test Type: Ames test
 Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
 Result: negative

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Suspected of damaging the unborn child.

Components:

Styrene

Reproductive toxicity - Assessment : Some evidence of adverse effects on development, based on animal experiments.

cobalt bis(2-ethylhexanoate)

Reproductive toxicity - Assessment : Clear evidence of adverse effects on sexual function and fertility, based on animal experiments., Some evidence of adverse effects on development, based on animal experiments.

STOT - single exposure

May cause respiratory irritation.

Components:

Styrene

Assessment: May cause respiratory irritation.

STOT - repeated exposure

Causes damage to organs (Auditory organs) through prolonged or repeated exposure if inhaled.

Components:

Styrene


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Exposure routes: inhalation (vapour)

Target Organs: Auditory system

Assessment: Causes damage to organs through prolonged or repeated exposure.

N,N-diethylaniline

Target Organs: female reproductive organs

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Repeated dose toxicity
Components:

Styrene

Species: Human

85 mg/m³

Application Route: inhalation (vapour)

Species: Human

615 mg/kg

Application Route: Skin contact

Aspiration toxicity

Not classified based on available information.

Components:

Styrene

May be fatal if swallowed and enters airways.

Further information
Product:

Remarks: Solvents may degrease the skin.

SECTION 12: Ecological information
12.1 Toxicity
Components:

Styrene

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4,02 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 4,7 mg/l
aquatic invertebrates Exposure time: 48 h


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Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 4,9 mg/l
Exposure time: 72 h

EC10 (Pseudokirchneriella subcapitata (green algae)): 0,28 mg/l
Exposure time: 96 h

Toxicity to bacteria : EC50 (activated sludge): ca. 500 mg/l
Exposure time: 0,5 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1,01 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

Toxicity to soil dwelling organisms : NOEC: 34 mg/kg
Exposure time: 14 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 207

N,N-diethylaniline
Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 16,4 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,3 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): Calculated 3,07 mg/l
Exposure time: 72 h
Test Type: static test

cobalt bis(2-ethylhexanoate)
M-Factor (Short-term (acute) aquatic hazard) : 1

Ecotoxicology Assessment
Short-term (acute) aquatic hazard : Acute aquatic toxicity Category 1

Long-term (chronic) aquatic hazard : Chronic aquatic toxicity Category 3

2-methylhydroquinone
Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0,09 mg/l


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Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,19 mg/l
Exposure time: 48 h

M-Factor (Short-term (acute) aquatic hazard) : 10

Amorphous colloidal silica
Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 10.000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

12.2 Persistence and degradability
Components:

Styrene
Biodegradability : Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 10 d

N,N-diethylaniline
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

cobalt bis(2-ethylhexanoate)
Biodegradability : Result: Readily biodegradable.
Biodegradation: 60 %
Exposure time: 10 d
Method: OECD Test Guideline 301B

2-methylhydroquinone
Biochemical Oxygen Demand (BOD) : 940 mg/g
Incubation time: 5 d

Chemical Oxygen Demand (COD) : 1.970 mg/g

BOD/COD : BOD/COD: 0,48 %

Amorphous colloidal silica
Biodegradability : Result: The methods for determining biodegradability are not applicable to inorganic substances.


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12.3 Bioaccumulative potential
Components:

Styrene
Bioaccumulation : Bioconcentration factor (BCF): < 100

Partition coefficient: n-
octanol/water : log Pow: 2,96 (25 °C)

N,N-diethylaniline
Partition coefficient: n-
octanol/water : log Pow: 3,31

2-methylhydroquinone
Partition coefficient: n-
octanol/water : log Pow: 1,58

12.4 Mobility in soil
Components:

Styrene
Distribution among : Koc: 352
environmental compartments

12.5 Results of PBT and vPvB assessment
Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

Components:

Styrene
Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

12.6 Other adverse effects
Product:

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Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information**SECTION 14: Transport information****14.1 UN number**

ADN: UN1866

ADR: UN1866

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: UN1866**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** UN1866**INTERNATIONAL MARITIME DANGEROUS GOODS:** UN1866

RID: UN1866

14.2 UN proper shipping name

ADN: RESIN SOLUTION

ADR: RESIN SOLUTION

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Resin solution**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Resin solution**INTERNATIONAL MARITIME DANGEROUS GOODS:** RESIN SOLUTION

RID: RESIN SOLUTION

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14.3 Transport hazard class(es)

ADN: 3

ADR: 3

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: 3

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: 3

INTERNATIONAL MARITIME DANGEROUS GOODS: 3

RID: 3

14.4 Packing group

ADN: III

ADR: III

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: III

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: III

INTERNATIONAL MARITIME DANGEROUS GOODS: III

RID: III

14.5 Environmental hazards

ADN: Not applicable

ADR: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not applicable

INTERNATIONAL MARITIME DANGEROUS GOODS: Not applicable

RID: Not applicable

14.6 Special precautions for user

Not applicable

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

Ship Type: Not applicable

Hazard code(s): Not applicable

Pollutant Category: Not applicable

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**


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REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:
(3)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
P5c	FLAMMABLE LIQUIDS	5.000 t	50.000 t

Other regulations : Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

The components of this product are reported in the following inventories:

DSL : This product contains one or several components that are not on the Canadian DSL and have annual quantity limits.

AICS Not in compliance with the inventory

ENCS Not in compliance with the inventory

KECI Not in compliance with the inventory

PICCS Not in compliance with the inventory


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IECSC	Not in compliance with the inventory
TCSI	Not in compliance with the inventory
TSCA	On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

15.2 Chemical safety assessment

No data available

SECTION 16: Other information
Further information

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Classification procedure:

H226	Flammable liquid and vapour.	Based on product data or assessment
H315	Causes skin irritation.	Calculation method
H319	Causes serious eye irritation.	Calculation method
H361d	Suspected of damaging the unborn child.	Calculation method
H335	May cause respiratory irritation.	Calculation method
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.	Calculation method
H412	Harmful to aquatic life with long lasting effects.	Calculation method

Full text of H-Statements

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.


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H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Other information : The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Easy Composites Environmental Health and Safety Department .

Sources of key data used to compile the Safety Data Sheet
 Easy Composites internal data including own and sponsored test reports
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

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H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

GAM : Water Hazard Class for the Netherlands

ADR : Agreement concerning the International Carriage of Dangerous Goods by Road.

ADNR: Regulation for the Carriage of Dangerous Substances on the Rhine

CLP : Classification, Labelling and Packaging

CSA : Chemical Safety Assessment

CSR : Chemical Safety Report

DNEL : Derived No Effect Level.

EINECS : European Inventory of Existing Commercial Chemical Substances.

ELINCS : European List of Notified Chemical Substances

GV: Exposure limits (DK)

PEC : Predicted Effect Concentration

PEL : Permissible Exposure Limits

PNEC : Predicted No Effect Concentration

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals

RID : Regulation Concerning the International Transport of Dangerous Goods by Rail

WGK : German Water Hazard Class

GB / EN