

# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE PRODUCT

**NAME OF THE PRODUCT** Tin filler 1,3 kg

**REFERENCE** 070014

## 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.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Reproductive toxicity, Category 2	H361d: Suspected of damaging the unborn child.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation
Specific target organ toxicity - repeated exposure, Category 1	H372: Causes damage to organs through prolonged or repeated exposure.
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.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H361d Suspected of damaging the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
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/ mist/ vapours.  
 P271 Use only outdoors or in a well-ventilated area  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

### Response:

- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P313 IF exposed or concerned: Get medical advice/ attention.

### Storage:

- P405 Store locked up.

### Disposal:

- P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

## Hazardous components which must be listed on the label

Styrene.  
 Solvent naphtha (petroleum), light arom.  
 Maleic anhydride.

## 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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

### 3.2. Mixtures

**Chemical nature:** Mixture contains Resin.

#### Components:

Identification	Classification	Concentration (%w/w)
<b>Styrene</b> CAS-No.: 100-42-5 EC-No.: 202-851-5 Index-No.: 601-026-00-0 Registration number: 01-2119457861-32	Flam. Liq. 3; H226 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Repr. 2; H361d STOT SE 3; H335 (Respiratory system) STOT RE 1; H372 (Hearing organs) Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>=20-<25

<b>Solvent naphtha (petroleum), light arom</b> CAS-No.: 64742-95-6 EC-No.: 265-199-0 Index-No.: 649-356-00-4 Registration number: 01-2119455851-35	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411 EUH066	>=1-<2.5
<b>Maleic anhydride</b> CAS- No.: 108-31-6 EC-No.: 203-571-6 Index-No.: 607-096-00-9 Registration number: 01-2120760462-57	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1A; H317 STOT RE 1; H372 (Respiratory system) EUH071  Specific concentration limit Skin Sens. 1A; H317 >= 0.001%	>=0.001-<0.1

#### Substances with a workplace exposure limit

<b>Silicon dioxide</b> CAS-No.: 7631-86-9 EC-No.: 231-545-4 Index-No.: Registration number: 01-2119379499-16	>=1-<10
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For explanation of abbreviations see section 16.

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General advice

In the case of accident or if you feel unwell, seek medical advice immediately.  
 Move out of dangerous area.  
 Take off contaminated clothing and shoes immediately.  
 Do not leave the victim unattended.  
 Symptoms of poisoning may appear several hours later.  
 Show this safety data sheet to the doctor in attendance.

#### Protection of first-aiders

First Aid responders should pay attention to self-protection and use the recommended protective clothing.

#### If inhaled

Move to fresh air.  
 Keep patient warm and at rest.  
 If breathing is irregular or stopped, administer artificial respiration.  
 Call a physician immediately.

#### In case of skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.  
 Call a physician if irritation develops or persists.

#### **In case of eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Keep eye wide open while rinsing.  
If easy to do, remove contact lens, if worn.  
Consult a physician.

#### **If swallowed**

Rinse mouth with water.  
Do NOT induce vomiting.  
Call a physician immediately.

### **4.2. Most important symptoms and effects, both acute and delayed**

#### **Risks**

Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Suspected of damaging the unborn child.  
Causes damage to organs through prolonged or repeated exposure.

### **4.3. Indication of any immediate medical attention and special treatment needed**

#### **Treatment**

Treat symptomatically.  
Keep under medical supervision for at least 48 hours.

## **5. FIREFIGHTING MEASURES**

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### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>).  
Dry powder.  
Water spray jet.  
Alcohol-resistant foam.

#### **Unsuitable extinguishing media**

High volume water jet.

### **5.2. Special hazards arising from the substance or mixture**

#### **Specific hazards during firefighting**

Build-up of dangerous/ toxic fumes possible in cases of fire/ high temperature.

#### **Hazardous combustion products**

Hazardous decomposition products due to incomplete combustion  
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

### **5.3. Advice for firefighters**

#### **Special protective equipment for firefighters**

In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

#### **Further information**

Use water spray to cool unopened containers.  
Collect contaminated fire extinguishing water separately.  
This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## 6. ACCIDENTAL RELEASE MEASURES

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### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment.  
Evacuate personnel to safe areas.  
Ensure adequate ventilation, especially in confined areas.  
Remove all sources of ignition.  
Do not smoke.  
Avoid contact with skin, eyes and clothing.  
Sweep up to prevent slipping hazard.  
In the case of vapour formation use a respirator with an approved filter.

### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.  
Local authorities should be advised if significant spillages cannot be contained.

### 6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.  
Do not flush with water.

### 6.4. Reference to other sections

For personal protection see section 8.  
For disposal considerations see section 13.

## 7. HANDLING AND STORAGE

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### 7.1. Precautions for safe handling

#### Advice on safe handling

Keep container closed when not in use.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Wear personal protective equipment.  
Avoid contact with skin and eyes.  
Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture.  
Avoid inhalation of dust from sanding.

#### Advice on protection against fire and explosion

Vapours may form explosive mixtures with air.  
Keep away from open flames, hot surfaces and sources of ignition.  
Do not smoke.  
Take measures to prevent the build up of electrostatic charge.  
Use explosion-proof equipment.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage areas and containers

Store in original container.  
Keep containers tightly closed in a dry, cool and well-ventilated place.

#### Further information on storage conditions

Keep away from heat and sources of ignition.  
Protect from moisture.  
Keep away from direct sunlight.  
Do not store at temperatures above 30°C/ 86°F.

### Advice on common storage

Incompatible with oxidizing agents.  
 Keep away from food and drink.

### 7.3. Specific end use(s)

No data available.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

### 8.1. Control parameters

#### Occupational Exposure Limits

Identification	Value type (Form of exposure)	Control parameters	Basis
Mica CAS-No.: 12001-26-2	TWA (Inhalable)	10 mg/m <sup>3</sup>	GB EH40
	TWA (Respirable fraction)	0.8 mg/m <sup>3</sup>	GB EH40
Styrene CAS-No.: 100-42-5	TWA	100 ppm - 430 mg/m <sup>3</sup>	GB EH40
	STEL	250 ppm - 1,080 mg/m <sup>3</sup>	GB EH40
Aluminium powder (stabilised) CAS-No.: 7429-90-5	TWA (inhalable dust)	10 mg/m <sup>3</sup>	GB EH40
	TWA (Respirable dust)	4 mg/m <sup>3</sup>	GB EH40
Silicon dioxide CAS-No.: 7631-86-9	TWA (Respirable dust)	0.1 mg/m <sup>3</sup>	2017/164/EU
	Further information: Carcinogens or mutagens		
	TWA (inhalable dust)	6 mg/m <sup>3</sup> (Silica)	GB EH40
	TWA (Respirable dust)	2.4 mg/m <sup>3</sup> (Silica)	GB EH40
Maleic anhydride CAS-No.: 108-31-6	TWA	1 mg/m <sup>3</sup>	GB EH40
	Further information: Capable of causing occupational asthma		
	STEL	3 mg/m <sup>3</sup>	GB EH40
	Further information: Capable of causing occupational asthma		

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

#### Workers

Identification	Exposure routes	Potential health effects	Value
Styrene	Dermal	Long-term systemic effects, Chronic effects	406 mg/kg bw/day
	Inhalation	Long-term systemic effects, Chronic effects	85 mg/m <sup>3</sup>
	Inhalation	Acute systemic effects, Chronic effects	289 mg/m <sup>3</sup>
	Inhalation	Acute local effects, Short-term exposure	306 mg/m <sup>3</sup>
Solvent naphtha (petroleum), light arom.	Skin contact	Long-term systemic effects	25 mg/kg
	Inhalation	Long-term systemic effects	150 mg/m <sup>3</sup>

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

#### Consumers

Identification	Exposure routes	Potential health effects	Value
Styrene	Oral	Long-term systemic effects, Chronic effects	2,1 mg/kg bw/day
	Dermal	Long-term systemic effects, Chronic effects	343 mg/kg bw/day
	Inhalation	Long-term systemic effects, Chronic effects	10,0 mg/m <sup>3</sup>
	Inhalation	Acute systemic effects, Short-term exposure	174,25 mg/m <sup>3</sup>
	Inhalation	Acute local effects, Short-term exposure	182,75 mg/m <sup>3</sup>





Solvent naphtha (petroleum), light arom.	Oral	Long-term systemic effects	11 mg/kg
	Skin contact	Long-term systemic effects	11 mg/kg
	Inhalation	Long-term systemic effects	32 mg/m <sup>3</sup>

#### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Identification	Environmental Compartment	Value
Styrene	Fresh water	0.028 mg/l
	Marine water	0.014 mg/l
	Fresh water sediment	0.614 mg/kg dry weight (d.w.)
	Marine sediment	0.307 mg/kg dry weight (d.w.)
	Soil	0.2 mg/kg dry weight (d.w.)
	Sewage treatment plant	5 mg/l

## 8.2. Exposure controls

### Personal protective equipment

	<b>Eye protection</b> Safety glasses with side-shields conforming to EN166.
	<b>Hand protection</b> Material: Fluorinated rubber. Break through time: >480 min. Glove thickness: >=0.4 mm. Directive: DIN EN 374. Protective index: Class 6. Remarks: Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The data about break through time/strength of material are standard values! The exact break through time/strength of material has to be obtained from the producer of the protective glove. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Preventive skin protection. Butyl gloves are not suitable. Nitrile gloves are not suitable. Avoid natural rubber gloves.
	<b>Skin and body protection</b> Please wear suitable protective clothing, e.g. made of cotton or heat-resistant synthetic fibres. Long sleeved clothing.
	<b>Respiratory protection</b> Apply technical measures to comply with the occupational exposure limits. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used. Dry sanding, flame cutting and/or welding of the cured material will give rise to dust and/or hazardous fumes. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Filter type: Combined particulates and organic vapour type (A-P).

### Protective measures

Ensure that eye flushing systems and safety showers are located close to the working place.  
 Avoid contact with the skin and the eyes.  
 Use only with adequate ventilation.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Physical state	Paste
Colour	Silver
Odour	Characteristic
Melting point/freezing point	Not determined
Melting point/range	-30°C Literary value styrene
Boiling point/boiling range	145°C (1,013 hPa) Literary value styrene
Upper explosion limit/Upper flammability limit	6,1% (V) Literary value styrene
Lower explosion limit/Lower flammability limit	1,1% (V) Literary value styrene
Flash point	31°C (1,013 hPa) Literary value styrene
Ignition temperature	490°C (1,013 hPa) Literary value styrene
pH	Not applicable substance/mixture is non-soluble (in water)
Viscosity, dynamic	Not determined
Viscosity, kinematic	Not determined
Solubility(ies) - Water solubility	0.32 g/l Literary value styrene (25°C)
Partition coefficient: noctanol/ water	Not determined
Vapour pressure	6.67 hPa (20°C) Literary value styrene
Density	ca. 1.4 g/cm <sup>3</sup> (20°C)

### 9.2. Other information

Explosives	Not explosive. In use, may form flammable/explosive vapour-air mixture.
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## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

No decomposition if used as directed.

### 10.2. Chemical stability

No decomposition if stored and applied as directed.

### 10.3. Possibility of hazardous reactions

#### Hazardous reactions

Avoid radical-forming starting agents, peroxides and reactive metals.

Polymerization can occur. Polymerization is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.

### 10.4. Conditions to avoid

Heat, flames and sparks.

Strong sunlight for prolonged periods.

### 10.5. Incompatible materials

#### Materials to avoid

Strong acids and oxidizing agents polymerisation initiators.

Copper.

Copper alloys.

Brass.



## 10.6. Hazardous decomposition products

Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Not classified based on available information.

#### Product

Acute inhalation toxicity: Acute toxicity estimate: >20 mg/l.  
 Exposure time: 4h.  
 Test atmosphere: vapour.  
 Method: Calculation method.

#### Components

Styrene	Acute oral toxicity	LD50 Oral (Rat): 5,000 mg/kg
	Acute inhalation toxicity	LC50 (Rat): 11,8 mg/l Exposure time: 4h Test atmosphere: vapour
	Acute dermal toxicity	LD50 Dermal (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402
Solvent naphtha (petroleum), light arom.	Acute oral toxicity	LD50 Oral (Rat): > 6,800 mg/kg
	Acute inhalation toxicity	LC50 (Rat): > 10.2 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
	Acute dermal toxicity	LD50 Dermal (Rabbit): > 3,400 mg/kg Method: OECD Test Guideline 402
Maleic anhydride	Acute oral toxicity	LD50 Oral (Rat): 1,090 mg/kg Method: OECD Test Guideline 401
	Acute inhalation toxicity	LC50 (Rat): > 4.35 mg/l Exposure time: 1 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity
	Acute dermal toxicity	LD50 Dermal (Rabbit): 2,620 mg/kg
Silicon dioxide	Acute oral toxicity	LD50 Oral (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401
	Acute inhalation toxicity	LC0 (Rat): 0.139 mg/l Exposure time: 4 h Test atmosphere: dust/mist
	Acute dermal toxicity	LD50 Dermal (Rabbit): > 5,000 mg/kg

#### Skin corrosion/irritation

Causes skin irritation.

#### Components

Styrene	Species: Rabbit. Result: irritating.
Solvent naphtha (petroleum), light arom.	Assessment: Repeated exposure may cause skin dryness or cracking.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

### Components

Styrene	Species: Rabbit. Result: irritating.
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### Skin sensitisation

May cause an allergic skin reaction.

### Respiratory sensitisation

Not classified based on available information.

### Components

Styrene	Species: Guinea pig. Result: Does not cause skin sensitisation.
Maleic anhydride	Result: The product is a skin sensitizer, sub-category 1A.

### Germ cell mutagenicity

Not classified based on available information.

### Components

Solvent naphtha (petroleum), light arom.	Germ cell mutagenicity – Assessment: Classified based on benzene content <0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)
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### Carcinogenicity

Not classified based on available information.

### Components

Solvent naphtha (petroleum), light arom.	Germ cell mutagenicity – Assessment: Classified based on benzene content <0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)
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### Reproductive toxicity

Suspected of damaging the unborn child.

### Components

Styrene	Reproductive toxicity - Assessment: Suspected of damaging the unborn child.
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### STOT - single exposure

May cause respiratory irritation.

### Components

Styrene	Assessment: May cause respiratory irritation.
Solvent naphtha (petroleum), light arom	Assessment: May cause respiratory irritation. May cause drowsiness or dizziness.

### STOT - repeated exposure

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

### Components

Styrene	Exposure routes: Inhalation. Target Organs: hearing organs. Assessment: Causes damage to organs through prolonged or repeated exposure.
Maleic anhydride	Exposure routes: Inhalation Target Organs: Respiratory system Assessment: Causes damage to organs through prolonged or repeated exposure.

### Aspiration toxicity

Not classified based on available information.

### Components

Styrene	May be fatal if swallowed and enters airways.
Solvent naphtha (petroleum), light arom	May be fatal if swallowed and enters airways.

## 11.2. Information on other hazards

### Endocrine disrupting properties

#### Product

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Styrene	Toxicity to fish	LC50 (Pimephales promelas (fathead minnow)): 4.02 mg/l Exposure time: 96h
	Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 4.7 mg/l Exposure time: 48h Method: OECD Test Guideline 202
	Toxicity to algae/aquatic plants	EC50 (Selenastrum capricornutum (green algae)): 4.9 mg/l Exposure time: 72h
	Toxicity to microorganisms	EC50 (Natural microorganism): ca. 500 mg/l Method: OECD Test Guideline 209
	Toxicity to fish (Chronic toxicity)	No data available
	Toxicity to daphnia and Other aquatic invertebrates (Chronic toxicity)	NOEC: 1,01 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
	<b>Ecotoxicology Assessment</b> Chronic aquatic toxicity	Harmful to aquatic life with long lasting effects
Solvent naphtha (petroleum), light arom.	Toxicity to fish	LL50 (Oncorhynchus mykiss (rainbow trout)): 9.2 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	Toxicity to daphnia and Other aquatic invertebrates	EL50 (Daphnia magna (Water flea)): 3.2 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
	Toxicity to algae/aquatic plants	EL50 (Pseudokirchneriella subcapitata (green algae)): 56 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
	Toxicity to fish (Chronic toxicity)	NOELR: 2.6 mg/l Exposure time: 14 d Species: Pimephales promelas (fathead minnow) Method: OECD Test Guideline 204
	Toxicity to daphnia and Other aquatic invertebrates (Chronic toxicity)	NOELR: 2.6 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
	<b>Ecotoxicology Assessment</b> Chronic aquatic toxicity	Toxic to aquatic life with long lasting effects.
Maleic anhydride	Toxicity to fish	LC50 (Lepomis macrochirus (Bluegill sunfish)): 75 mg/l Exposure time: 96 h Method: EPA-660/3-75-00
	Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 42.81 mg/l End point: Immobilization Exposure time: 48 h Method: OECD Test Guideline 202
	Toxicity to algae/aquatic plants	EC50 (Pseudokirchneriella subcapitata (green algae)): 74.35mg/l Exposure time: 72 h Method: OECD Test Guideline 201
	Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	NOEC: 10 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)
	<b>Ecotoxicology Assessment</b> Chronic aquatic toxicity	This product has no known ecotoxicological effects

Silicon dioxide	Toxicity to fish	LC0 (Brachydanio rerio (zebrafish)): > 10,000 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	Toxicity to daphnia and other aquatic invertebrates	LC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 48 h Method: OECD Test Guideline 202

## 12.2. Persistence and degradability

Identification	Biodegradability
Styrene	Biodegradation: 70.9% Exposure time: 28 d Readily biodegradable
Solvent naphtha (petroleum), light arom.	Biodegradation: 74.3%
Maleic anhydride	Biodegradation: >90% Exposure time: 225 d Method: OECD Test Guideline 301B

## 12.3. Bioaccumulative potential

Identification	Partition coefficient: n-octanol/water	Bioaccumulation
Styrene	log Pow: 2.96 (25°C)	
Solvent naphtha (petroleum), light arom.	log Pow: > 3	Bioconcentration factor (BCF): 2,500
Maleic anhydride	log Pow: -2.61 (20°C)	

## 12.4. Mobility in soil

Identification	Distribution among environmental compartments
Styrene	log Koc: 2.55
Solvent naphtha (petroleum), light arom.	Koc: < 229.2 log Koc: > 2.36

## 12.5. Results of PBT and vPvB assessment

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.

## 12.6. Endocrine disrupting properties

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 12.7. Other adverse effects

Additional ecological information: No data available.

# 13. DISPOSAL CONSIDERATIONS

## 13.1. Waste treatment methods

### Product

Do not dispose of with domestic refuse.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Dispose of in accordance with local regulations.

Dispose of wastes in an approved waste disposal facility.

Send to a licensed waste management company.

### Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Store containers and offer for recycling of material when in accordance with the local regulations. Packaging that is not properly emptied must be disposed of as the unused product. Dispose of in accordance with local regulations.

### Waste Code

The following Waste Codes are only suggestions: 07 02 08, other still bottoms and reaction residues.

## 14. TRANSPORT INFORMATION

### ADN

14.1 UN number or ID number	UN 1866
14.2 UN proper shipping name	RESIN SOLUTION
14.3 Transport hazard class(es)	3
14.4 Packing group	
Packing group	III
Classification Code	F1
Hazard Identification Number	30
Labels	3
14.5 Environmental hazards	
Environmentally hazardous	No
14.6 Special precautions for user	The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations
14.7 Maritime transport in bulk according to IMO instruments	Not applicable for product as supplied

### ADR

14.1 UN number or ID number	UN 1866
14.2 UN proper shipping name	RESIN SOLUTION
14.3 Transport hazard class(es)	3
14.4 Packing group	
Packing group	III
Classification Code	F1
Hazard Identification Number	30
Labels	3
Tunnel restriction code	(D/E)
14.5 Environmental hazards	
Environmentally hazardous	No
14.6 Special precautions for user	The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations
14.7 Maritime transport in bulk according to IMO instruments	Not applicable for product as supplied

## RID

14.1 UN number or ID number	UN 1866
14.2 UN proper shipping name	RESIN SOLUTION
14.3 Transport hazard class(es)	3
14.4 Packing group	
Packing group	III
Classification Code	F1
Hazard Identification Number	30
Labels	3
14.5 Environmental hazards	
Environmentally hazardous	No
14.6 Special precautions for user	The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations
14.7 Maritime transport in bulk according to IMO instruments	Not applicable for product as supplied

## IMDG

14.1 UN number or ID number	UN 1866
14.2 UN proper shipping name	RESIN SOLUTION
14.3 Transport hazard class(es)	3
14.4 Packing group	
Packing group	III
Labels	3
EmS Code	F-E, S-E
14.5 Environmental hazards	
Marine pollutant	No
14.6 Special precautions for user	The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations
14.7 Maritime transport in bulk according to IMO instruments	Not applicable for product as supplied

## IATA

14.1 UN number or ID number	UN 1866
14.2 UN proper shipping name	RESIN SOLUTION
14.3 Transport hazard class(es)	3
14.4 Packing group (Cargo)	
Packing instruction (cargo aircraft)	366
Packing instruction (LQ)	Y344
Packing group	III
Labels	Class 3 – Flammable liquids



14.4 Packing group (Passenger)	
Packing instruction (passenger aircraft)	355
Packing instruction (LQ)	Y344
Packing group	III
Labels	Class 3 – Flammable liquids
14.5 Environmental hazards	
14.6 Special precautions for user	The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations
14.7 Maritime transport in bulk according to IMO instruments	Not applicable for product as supplied

## 15. REGULATORY INFORMATION

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	Conditions of restriction for the following entries should be considered: Number on list 3
REACH - Candidate List of Substances of Very High Concern for Authorization (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 (EU) 2019/1021 on persistent organic pollutants (recast)	Not applicable
Regulation (EU) 2019/1148 on the marketing and use of explosives precursors	
Acquisition, introduction, possession or use of the explosive precursor by the general public is subject to reporting obligations	Aluminium powder (stabilised) (ANNEX II)
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances	P5c FLAMMABLE LIQUIDS
Volatile organic compounds	Directive 2004/42/EC Volatile organic compounds (VOC) content: <250 g/l VOC content for the product in a ready to use condition

### 15.2 Chemical safety assessment

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.



## 16. OTHER INFORMATION

### Full text of H-Statements

H226: Flammable liquid and vapour.  
H302: Harmful if swallowed.  
H304: May be fatal if swallowed and enters airways.  
H314: Causes severe skin burns and eye damage.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335: May cause respiratory irritation.  
H336: May cause drowsiness or dizziness.  
H361d: Suspected of damaging the unborn child.  
H372: Causes damage to organs through prolonged or repeated exposure if inhaled.  
H372: Causes damage to organs through prolonged or repeated exposure.  
H411: Toxic to aquatic life with long lasting effects.  
H412: Harmful to aquatic life with long lasting effects.  
EUH066: Repeated exposure may cause skin dryness or cracking.  
EUH071: Corrosive to the respiratory tract.

### Full text of other abbreviations

Acute Tox.: Acute toxicity.  
Aquatic Chronic: Long-term (chronic) aquatic hazard.  
Asp. Tox.: Aspiration hazard.  
Eye Dam.: Serious eye damage.  
Eye Irrit.: Eye irritation.  
Flam. Liq.: Flammable liquids.  
Repr.: Reproductive toxicity.  
Resp. Sens.: Respiratory sensitisation.  
Skin Corr.: Skin corrosion.  
Skin Irrit.: Skin irritation.  
Skin Sens.: Skin sensitisation.  
STOT RE: Specific target organ toxicity - repeated exposure.  
STOT SE: Specific target organ toxicity - single exposure.  
2004/37/EC: Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work.  
GB EH40: UK. EH40 WEL - Workplace Exposure Limits.  
2004/37/EC/TWA: Long term exposure limit.  
GB EH40/TWA: Long-term exposure limit (8-hour TWA reference period).  
GB EH40/STEL: Short-term exposure limit (15-minute reference period).

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

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

AIIC - Australian Inventory of Industrial Chemicals.

ASTM - American Society for the Testing of Materials.

Bw - Body weight.

CLP - Classification Labelling Packaging Regulation.  
Regulation (EC) No 1272/2008.

CMR - Carcinogen, Mutagen or Reproductive Toxicant.

DIN - Standard of the German Institute for Standardisation.

DSL - Domestic Substances List (Canada).

ECHA - European Chemicals Agency.

EC-Number - European Community number.

ECx - Concentration associated with x% response.

ELx - Loading rate associated with x% response.

EmS - Emergency Schedule.

ENCS - Existing and New Chemical Substances (Japan).

ErCx - Concentration associated with x% growth rate response.

GHS - Globally Harmonized System.

GLP - Good Laboratory Practice.

IARC - International Agency for Research on Cancer.

IATA - International Air Transport Association.

IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk.

IC50 - Half maximal inhibitory concentration.

ICAO - International Civil Aviation Organization.

IECSC - Inventory of Existing Chemical Substances in China.

IMDG - International Maritime Dangerous Goods.

IMO - International Maritime Organization.

ISHL - Industrial Safety and Health Law (Japan).

ISO - International Organisation for Standardization.

KECI - Korea Existing Chemicals Inventory.

LC50 - Lethal Concentration to 50 % of a test population.

LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose).

MARPOL - International Convention for the Prevention of Pollution from Ships.

N.o.s. - Not Otherwise Specified.

NO(A)EC - No Observed (Adverse) Effect Concentration.

NO(A)EL - No Observed (Adverse) Effect Level.

NOELR - No Observable Effect Loading Rate.

NZIoC - New Zealand Inventory of Chemicals.

OECD - Organization for Economic Co-operation and Development.

OPPTS - Office of Chemical Safety and Pollution Prevention.

PBT - Persistent, Bioaccumulative and Toxic substance.

PICCS - Philippines Inventory of Chemicals and Chemical Substances.

(Q)SAR - (Quantitative) Structure Activity Relationship.

REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail.

SADT - Self-Accelerating Decomposition Temperature.

SDS - Safety Data Sheet.

SVHC - Substance of Very High Concern.

TCSI - Taiwan Chemical Substance Inventory.

TRGS - Technical Rule for Hazardous Substances.

TSCA - Toxic Substances Control Act (United States).

UN - United Nations.

vPvB - Very Persistent and Very Bioaccumulative.

#### Further information

Classification of the mixture		Classification procedure
Flam. Liq. 3	H226	Based on product data or assessment
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 2	H361d	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 1	H372	Calculation method
Aquatic Chronic 3	H412	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.