



## STYROSHIELD PRIMER

### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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## DURATEC COATING VOC

707-019

### STYROSHIELD PRIMER

The Composites Fabricators Association in association with the EPA conducted a study of styrene emissions from open mold composite manufacturing. Styrene monomer is a volatile liquid that will react to form a non-volatile copolymer with unsaturated polyester resins. The value to determine is thus the amount of material lost prior to the completion of the reaction. The data gathered in this study is the actual measurement of emissions based on the percent styrene in the coating and the application method chosen. It was shown that the non-atomizing applications (such as brushing or roll coating) emit much less than the atomizing application (spraying). Using the data from this study, a Unified Emissions Factor (UEF) table was prepared.

Dura Technologies, Inc. considers this to be the best available science for calculating the emissions of coatings containing styrene monomer. We will therefore report three distinct VOC numbers. The VOC reported in section III of the MSDS is based on 100% evaporation of the styrene. This attachment will report the VOC calculated using the UEF factors for atomized application and non-atomized application.

#### **ATOMIZED APPLICATION**

**COATING VOC: 3.26 LB/GAL ( 391 GR/LITER)**

**MATERIAL VOC: 2.67 LB/GAL ( 320 GR/LITER)**

#### **NON-ATOMIZED APPLICATION**

**COATING VOC: 2.65 LB/GAL ( 317.4 GR/LITER)**

**MATERIAL VOC: 2.17 LB/GAL ( 259.6 GR/LITER)**

For some applications, this product may not be compliant if applied using atomizing techniques. Please consult the AQMD rule that applies to you operation and determine which application method will comply.

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : STYROSHIELD PRIMER  
CAS No : mixture  
Product code : 707-019  
Formula : na

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

Use of the substance/mixture : COATING

#### 1.3. Details of the supplier of the safety data sheet

Dura Technologies, Inc.  
2720 South Willow Avenue #A  
Bloomington, CA 92316

909.877.8477  
ChemTrec US: 800.424.9300  
ChemTrec Int: +1 70 3527 3887

#### 1.4. Emergency telephone number

Emergency number : ChemTrec US: 800.424.9300 Int: +1 70 3527 3887  
CHEMTREC: 1-800-424-9300

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Flam. Liq. 2 H225  
Skin Irrit. 2 H315  
Eye Irrit. 2A H319  
Skin Sens. 1 H317  
Carc. 2 H351  
Repr. 2 H361  
STOT SE 3 H335  
STOT RE 1 H372

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS02



GHS07



GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H225 - Highly flammable liquid and vapor  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation  
H351 - Suspected of causing cancer  
H361 - Suspected of damaging fertility or the unborn child  
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P241 - Use explosion-proof electrical, lighting, ventilating equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P260 - Do not breathe dust, fume, mist, spray, vapors  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area

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P272 - Contaminated work clothing should not be allowed out of the workplace  
P280 - Wear eye protection, protective clothing, protective gloves  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water  
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
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  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
P314 - Get medical advice and attention if you feel unwell  
P332+P313 - If skin irritation occurs: Get medical advice/attention  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P362 - Take off contaminated clothing and wash it before reuse  
P362+P364 - Take off contaminated clothing and wash it before reuse  
P370+P378 - In case of fire: Use carbon dioxide (CO<sub>2</sub>), dry chemical powder, foam to extinguish  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P403+P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P501 - Dispose of contents/container to in accordance with local, state, and federal regulations.

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS-US)

No data available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substance

Not applicable

Full text of H-phrases: see section 16

### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
Proprietary Resin	(CAS No) TRADE SECRET	<= 45	Not classified
acetone	(CAS No) 67-64-1	<= 12	Not classified
2-hydroxyethyl methacrylate, stabilized	(CAS No) 868-77-9	<= 12	Not classified
2-propanol	(CAS No) 67-63-0	<= 12	Flam. Liq. 2, H225 STOT SE 3, H336
talc	(CAS No) 14807-96-6	<= 10	Not classified
styrene, inhibited	(CAS No) 100-42-5	<= 6	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 Repr. 2, H361 STOT SE 3, H335 STOT RE 1, H372
fibreglass microspheres, diameter > 3 micrometers	(CAS No) 65997-17-3	<= 5	Not classified
PROPRIETARY POLYMER MICROSPHERE	(CAS No) TRADE SECRET	<= 5	Not classified
1,6-hexanediol diacrylate	(CAS No) 13048-33-4	<= 3	Skin Irrit. 2, H315 Skin Sens. 1, H317
titanium(IV) oxide	(CAS No) 13463-67-7	<= 2	Carc. 2, H351
cobalt(II) 2-ethylhexanoate	(CAS No) 136-52-7	<= 0.5	Carc. 2, H351

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. Suspected of causing cancer. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

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- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see ... on this label). If skin irritation or rash occurs:
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

- Symptoms/injuries : May cause genetic defects (avoid skin contact and inhalation.). May cause cancer (avoid skin contact and inhalation.). Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.
- Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye irritation.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

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

- Fire hazard : Highly flammable liquid and vapor.
- Explosion hazard : May form flammable/explosive vapor-air mixture.
- Reactivity : No reactivity hazard other than the effects described in sub-sections below.

### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

#### 6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective goggles. Protective clothing.
- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

- For containment : Dam up the liquid spill. Contain released substance, pump into suitable containers.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

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- Precautions for safe handling : Eliminate all ignition sources if safe to do so. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapors/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray.
- Hygiene measures : Wash ... thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

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

- Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.
- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep in fireproof place. Keep container tightly closed.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>styrene, inhibited (100-42-5)</b>		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA ACGIH	ACGIH STEL (ppm)	20 ppm
<b>titanium(IV) oxide (13463-67-7)</b>		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>talc (14807-96-6)</b>		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
<b>acetone (67-64-1)</b>		
USA ACGIH	ACGIH TWA (ppm)	500 ppm
USA ACGIH	ACGIH STEL (ppm)	500 ppm
<b>fibreglass microspheres, diameter &gt; 3 micrometers (65997-17-3)</b>		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
<b>2-propanol (67-63-0)</b>		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	200 ppm

### 8.2. Exposure controls

- Appropriate engineering controls : Ensure exposure is below occupational exposure limits (where available).
- Personal protective equipment : Avoid all unnecessary exposure.
- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or safety glasses.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Wear appropriate mask.
- Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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

- Physical state : Liquid
- Color : Gray.

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Odor	: characteristic.
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: >= °C
Freezing point	: No data available
Boiling point	: >= 56.1 °C
Flash point	: >= -20 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: ≥ 0.81
Specific gravity / density	: <= 1.2 g/l
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

### 10.2. Chemical stability

Polymerization can result in formation of solid deposits, even in vapour space. Not established. Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>styrene, inhibited (100-42-5)</b>	
LD50 oral rat	5000 mg/kg (Rat; Literature study; >6000 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rat	2820 mg/kg (Rat; Literature study; OECD 402: Acute Dermal Toxicity; >2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	5010 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	12 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	2770 ppm/4h (Rat; Literature study)

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<b>styrene, inhibited (100-42-5)</b>	
ATE CLP (oral)	5000.000 mg/kg body weight
ATE CLP (dermal)	2820.000 mg/kg body weight
ATE CLP (gases)	2770.000 ppmV/4h
ATE CLP (vapors)	12.000 mg/l/4h
ATE CLP (dust, mist)	12.000 mg/l/4h

<b>titanium(IV) oxide (13463-67-7)</b>	
LD50 oral rat	> 10000 mg/kg (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value; > 5000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	> 6.8 mg/l/4h (Rat; Experimental value)

<b>cobalt(II) 2-ethylhexanoate (136-52-7)</b>	
LD50 oral rat	3129 mg/kg body weight (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value)
LD50 dermal rat	> 2000 mg/kg body weight (Rat; Weight of evidence; OECD 402: Acute Dermal Toxicity)
ATE CLP (oral)	3129.000 mg/kg body weight

<b>acetone (67-64-1)</b>	
LD50 oral rat	5800 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	20000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	71 mg/l/4h (Rat; Experimental value; 76 mg/l/4h; Rat; Experimental value)
LC50 inhalation rat (ppm)	30000 ppm/4h (Rat; Experimental value)
ATE CLP (oral)	5800.000 mg/kg body weight
ATE CLP (dermal)	20000.000 mg/kg body weight
ATE CLP (gases)	30000.000 ppmV/4h
ATE CLP (vapors)	71.000 mg/l/4h
ATE CLP (dust, mist)	71.000 mg/l/4h

<b>2-hydroxyethyl methacrylate, stabilized (868-77-9)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 3000 mg/kg (Rabbit)

<b>1,6-hexanediol diacrylate (13048-33-4)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	3600 mg/kg (Rabbit)
ATE CLP (dermal)	3600.000 mg/kg body weight

<b>2-propanol (67-63-0)</b>	
LD50 oral rat	5045 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 5840 mg/kg bodyweight; Rat)
LD50 dermal rabbit	12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)
LC50 inhalation rat (mg/l)	73 mg/l/4h (Rat)
ATE CLP (oral)	5045.000 mg/kg body weight
ATE CLP (dermal)	12870.000 mg/kg body weight
ATE CLP (vapors)	73.000 mg/l/4h
ATE CLP (dust, mist)	73.000 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.

<b>styrene, inhibited (100-42-5)</b>	
IARC group	2B - Possibly carcinogenic to humans

<b>titanium(IV) oxide (13463-67-7)</b>	
IARC group	2B - Possibly carcinogenic to humans

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<b>talc (14807-96-6)</b>	
IARC group	3 - Not classifiable
<b>cobalt(II) 2-ethylhexanoate (136-52-7)</b>	
IARC group	2B - Possibly carcinogenic to humans
<b>2-propanol (67-63-0)</b>	
IARC group	3 - Not classifiable
Reproductive toxicity	: Suspected of damaging fertility or the unborn child. Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure. Based on available data, the classification criteria are not met Causes damage to organs through prolonged or repeated exposure
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Harmful if inhaled. Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>styrene, inhibited (100-42-5)</b>	
LC50 fish 1	25 mg/l (96 h; <i>Lepomis macrochirus</i> ; GLP)
LC50 other aquatic organisms 1	10 - 100 mg/l (96 h)
EC50 Daphnia 1	23 mg/l (48 h; <i>Daphnia magna</i> ; Locomotor effect)
LC50 fish 2	32 mg/l (96 h; <i>Pimephales promelas</i> )
EC50 Daphnia 2	27 mg/l (24 h; <i>Daphnia magna</i> ; GLP)
TLM fish 1	25.1 mg/l (96 h; <i>Lepomis macrochirus</i> ; Soft water)
TLM fish 2	46.4 mg/l (96 h; <i>Pimephales promelas</i> ; Soft water)
TLM other aquatic organisms 1	10 - 100,96 h
Threshold limit other aquatic organisms 1	10 - 100,96 h; <i>Pseudomonas putida</i>
Threshold limit other aquatic organisms 2	72 mg/l
Threshold limit algae 1	> 200 mg/l (192 h; <i>Scenedesmus quadricauda</i> ; Inhibitory)
Threshold limit algae 2	67 mg/l ( <i>Microcystis aeruginosa</i> ; Inhibitory)
<b>titanium(IV) oxide (13463-67-7)</b>	
LC50 fish 1	> 1000 mg/l (96 h; <i>Pimephales promelas</i> )
EC50 Daphnia 1	< 1000 mg/l (432 h; <i>Daphnia magna</i> ; Static system)
LC50 fish 2	> 1 g/l (96 h; <i>Leuciscus idus</i> )
EC50 Daphnia 2	< 500 mg/l (720 h; <i>Daphnia magna</i> ; Static system)
Threshold limit algae 1	61 mg/l (72 h; <i>Pseudokirchneriella subcapitata</i> )
<b>talc (14807-96-6)</b>	
LC50 fish 1	> 100 g/l (24 h; <i>Brachydanio rerio</i> ; Intermittent flow)
<b>cobalt(II) 2-ethylhexanoate (136-52-7)</b>	
LC50 fish 1	54.1 mg/l (96 h; <i>Pimephales promelas</i> )
EC50 Daphnia 1	2618 µg/l (48 h)
Threshold limit algae 1	24.1 µg/l (7 days)
Threshold limit algae 2	90.1 µg/l (7 days; <i>Lemna minor</i> ; Growth rate)
<b>acetone (67-64-1)</b>	
LC50 fish 1	6210 mg/l (96 h; <i>Pimephales promelas</i> ; Nominal concentration)



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<b>acetone (67-64-1)</b>	
EC50 Daphnia 1	8800 mg/l (48 h; Daphnia pulex)
LC50 fish 2	5540 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
TLM fish 1	13000 ppm (96 h; Gambusia affinis; Turbulent water)
TLM fish 2	> 1000 ppm (96 h; Pisces)
Threshold limit other aquatic organisms 1	3000 mg/l (Plankton)
Threshold limit other aquatic organisms 2	28 mg/l (Protozoa)
Threshold limit algae 1	7500 mg/l (Scenedesmus quadricauda; pH = 7)
Threshold limit algae 2	3400 mg/l (48 h; Chlorella sp.)

<b>2-hydroxyethyl methacrylate, stabilized (868-77-9)</b>	
LC50 fish 1	227 mg/l (96 h; Pimephales promelas; Measured concentration)
LC50 fish 2	360 mg/l (48 h; Leuciscus idus)

<b>2-propanol (67-63-0)</b>	
LC50 fish 1	4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system)
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna)
LC50 fish 2	9640 mg/l (96 h; Pimephales promelas; Lethal)
EC50 Daphnia 2	13299 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	> 1000 mg/l (72 h; Scenedesmus subspicatus; Growth rate)
Threshold limit algae 2	1800 mg/l (72 h; Algae; Cell numbers)

### 12.2. Persistence and degradability

<b>STYROSHIELD PRIMER (mixture)</b>	
Persistence and degradability	Not established.

<b>styrene, inhibited (100-42-5)</b>	
Persistence and degradability	Readily biodegradable in water. Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. Photodegradation in the air. Not established.
Chemical oxygen demand (COD)	2.80 g O <sub>2</sub> /g substance
ThOD	3.07 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.42 % ThOD

<b>Proprietary Resin (TRADE SECRET)</b>	
Persistence and degradability	Not established.

<b>titanium(IV) oxide (13463-67-7)</b>	
Persistence and degradability	Biodegradability: not applicable. Low potential for mobility in soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>talc (14807-96-6)</b>	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>cobalt(II) 2-ethylhexanoate (136-52-7)</b>	
Persistence and degradability	Biodegradability in water: no data available.

<b>acetone (67-64-1)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.43 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.92 g O <sub>2</sub> /g substance
ThOD	2.20 g O <sub>2</sub> /g substance
BOD (% of ThOD)	(20 day(s)) 0.872

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### 2-hydroxyethyl methacrylate, stabilized (868-77-9)

Persistence and degradability	Readily biodegradable in water. Biodegradability in soil: no data available. Adsorbs into the soil.
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### 1,6-hexanediol diacrylate (13048-33-4)

Persistence and degradability	Inherently biodegradable.
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### fibreglass microspheres, diameter > 3 micrometers (65997-17-3)

Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### PROPRIETARY POLYMER MICROSPHERE (TRADE SECRET)

Persistence and degradability	Not established.
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### 2-propanol (67-63-0)

Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available. Not established.
Biochemical oxygen demand (BOD)	1.19 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.23 g O <sub>2</sub> /g substance
ThOD	2.40 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.49 % ThOD

## 12.3. Bioaccumulative potential

### STYROSHIELD PRIMER (mixture)

Bioaccumulative potential	Not established.
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### styrene, inhibited (100-42-5)

BCF fish 1	35.5 (Carassius auratus)
BCF other aquatic organisms 1	74
Log Pow	2.96 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

### Proprietary Resin (TRADE SECRET)

Bioaccumulative potential	Not established.
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### titanium(IV) oxide (13463-67-7)

Bioaccumulative potential	Not bioaccumulative.
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### cobalt(II) 2-ethylhexanoate (136-52-7)

Bioaccumulative potential	No bioaccumulation data available.
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### acetone (67-64-1)

BCF fish 1	0.69 (Pisces)
BCF other aquatic organisms 1	3
Log Pow	-0.24 (Test data)
Bioaccumulative potential	Not bioaccumulative.

### 2-hydroxyethyl methacrylate, stabilized (868-77-9)

BCF fish 1	1.3 - 1.5 (Pisces; Calculated value)
Log Pow	-0.55 - 0.49
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 1,6-hexanediol diacrylate (13048-33-4)

Bioaccumulative potential	No bioaccumulation data available.
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### fibreglass microspheres, diameter > 3 micrometers (65997-17-3)

Bioaccumulative potential	No bioaccumulation data available. Not established.
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### PROPRIETARY POLYMER MICROSPHERE (TRADE SECRET)

Bioaccumulative potential	Not established.
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2-propanol (67-63-0)	
Log Pow	0.05 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

### 12.4. Mobility in soil

styrene, inhibited (100-42-5)	
Surface tension	0.032 N/m (19 °C)

cobalt(II) 2-ethylhexanoate (136-52-7)	
Surface tension	0.064 N/m (20 °C; 1 g/l)

acetone (67-64-1)	
Surface tension	0.0237 N/m

2-propanol (67-63-0)	
Surface tension	0.021 N/m (25 °C)

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to ...

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT

UN-No.(DOT) : UN1263

Proper Shipping Name (DOT) : PAINT

Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger

### Additional information

Other information : No supplementary information available.

### ADR

Transport document description : UN 1263, 3, II, (D/E)

Packing group (ADR) : II

Class (ADR) : 3 - Flammable liquid

Hazard identification number (Kemler No.) : 30

Classification code (ADR) : F1

Hazard labels (ADR) : 3 - Flammable liquids



Orange plates :



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Tunnel restriction code : D/E  
LQ : 5I  
Excepted quantities (ADR) : E2

### Transport by sea

UN-No. (IMDG) : 1263  
Proper Shipping Name (IMDG) : paint  
Class (IMDG) : 3 - Flammable liquids  
Packing group (IMDG) : II - substances presenting medium danger

### Air transport

UN-No. (IATA) : 1263  
Proper Shipping Name (IATA) : paint  
Class (IATA) : 3 - Flammable Liquids  
Packing group (IATA) : II - Medium Danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

styrene, inhibited (100-42-5)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Reactive hazard Fire hazard Delayed (chronic) health hazard

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225  
Skin Irrit. 2 H315  
Eye Irrit. 2 H319  
Skin Sens. 1 H317  
Carc. 2 H351  
Repr. 2 H361

Full text of H-phrases: see section 16

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11  
Xi; R36/38  
R43

Full text of R-phrases: see section 16

### 15.2.2. National regulations

styrene, inhibited (100-42-5)
Listed on EPA's Hazardous Air Pollutants (HAPS)

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### 15.3. US State regulations

styrene, inhibited (100-42-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)

styrene, inhibited (100-42-5)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

### SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure

NFPA health hazard

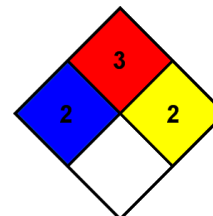
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity

: 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.



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### HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur  
Flammability : 3 Serious Hazard  
Physical : 1 Slight Hazard  
Personal Protection : H

SDS US (GHS HazCom 2012)

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