# CLEAR SUNSHIELD POLYESTER TOPCOAT

Safety Data Sheet

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

Revision date: 08/28/2019

## SECTION 1: Identification

### 1.1. Identification

Product form : Mixture

Trade name : CLEAR SUNSHIELD POLYESTER TOPCOAT

CAS-No. : mixture

Product code : 904-061

Formula : na

### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : COATING

### 1.3. Supplier

Dura Technologies, Inc.

2720 South Willow Avenue #A

Bloomington, CA 92316

909-546-1162

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

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

**GHS US classification**

| | |
|---|---|
| Flammable liquids Category 2 | H225 Highly flammable liquid and vapour |
| Skin corrosion/irritation Category 2 | H315 Causes skin irritation |
| Serious eye damage/eye irritation Category 2 | H319 Causes serious eye irritation |
| Skin sensitization, Category 1 | H317 May cause an allergic skin reaction |
| Carcinogenicity Category 2 | H351 Suspected of causing cancer |
| Reproductive toxicity Category 2 | H361 Suspected of damaging fertility or the unborn child |
| Specific target organ toxicity (single exposure) Category 3 | H335 May cause respiratory irritation |
| Specific target organ toxicity (repeated exposure) Category 1 | H372 Causes damage to organs through prolonged or repeated exposure |
| Aspiration hazard Category 1 | H304 May be fatal if swallowed and enters airways |
| Hazardous to the aquatic environment - Acute Hazard Category 2 | H401 Toxic to aquatic life |

Full text of H statements : see section 16

### 2.2. GHS Label elements, including precautionary statements

**GHS US labeling**

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) :
H225 - Highly flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
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
H401 - Toxic to aquatic life

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, sparks, open flames and other ignition sources. 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/gas/mist/vapors/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash exposed area. thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing must not be allowed out of the workplace
P273 - Avoid release to the environment.
P280 - Wear eye protection, protective clothing, protective gloves.
P301+P310 - If swallowed: Immediately call a poison center or doctor
P302+P352 - If on skin: Wash with plenty of water
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep 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 if you feel unwell
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see none listed. on this label)
P331 - Do NOT induce vomiting.
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+P364 - Take off contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use carbon dioxide (CO2), 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 which do not result in classification

No additional information available

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

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|---|---|---|---|
| styrene, inhibited | (CAS-No.) 100-42-5 | <= 29 | Flam. Liq. 3, H226<br>Acute Tox. 4 (Inhalation), H332<br>Acute Tox. 4 (Inhalation:vapour), H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>Carc. 2, H351<br>Repr. 2, H361<br>STOT SE 3, H335<br>STOT RE 1, H372<br>Aquatic Acute 2, H401 |
| methyl ethyl ketone | (CAS-No.) 78-93-3 | <= 10 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 |
| 1,6-hexanediol diacrylate | (CAS-No.) 13048-33-4 | <= 7 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317 |
| cobalt(II) 2-ethylhexanoate | (CAS-No.) 136-52-7 | <= 0.9 | Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Carc. 2, H351<br>Aquatic Acute 1, H400<br>Aquatic Chronic 2, H411 |

| Name | Product identifier | % | GHS US classification |
|---|---|---|---|
| 2-propanol | (CAS-No.) 67-63-0 | <= 0.3 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 |

Full text of hazard classes and H-statements : see section 16

## 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. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest. 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.

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: wash throughly for five minutes. seek medical attention. Get medical advice/attention. Specific treatment (see seek medical attention. on this label).

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: SEEK IMMEDIATE MEDICAL ATTENTION. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center/doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Harmful if inhaled.

Symptoms/effects : May cause genetic defects (avoid skin contact and inhalation.). May cause cancer (avoid skin contact and inhalation.).

Symptoms/effects after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Sand. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapor-air mixture.

Reactivity in case of fire : No reactivity hazard other than the effects described in sub-sections below.

### 5.3. Special protective equipment and precautions for fire-fighters

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. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## 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 : Ventilate spillage area. Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

| | | |
|---|---|---|
| Protective equipment | : | Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : | Ventilate area. |

### 6.2. Environmental precautions

Avoid release to the environment. 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 product, pump into suitable containers. |
| Methods for cleaning up | : | Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. |
| Other information | : | Dispose of materials or solid residues at an authorized site. |

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

## 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. |
| Precautions for safe handling | : | Wear personal protective equipment. 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. Use only outdoors or in a well-ventilated area. Avoid breathing DUST, FUMES, MIST, OR VAPORS. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. |
| Hygiene measures | : | Wash HANDS thoroughly after handling. Do not eat, drink or smoke when using this product. Always wash hands after handling the 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 and lighting equipment. equipment. |
| Storage conditions | : | Keep only in the original container in a cool, well ventilated place away from : HEAT SPARKS OR OPEN FLAMES. Keep in fireproof place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. |
| Incompatible products | : | Strong bases. Strong acids. |
| Incompatible materials | : | Sources of ignition. Direct sunlight. Heat sources. |

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| **styrene, inhibited (100-42-5)** | | |
|---|---|---|
| ACGIH | ACGIH TWA (ppm) | 20 ppm |
| ACGIH | ACGIH STEL (ppm) | 40 ppm |

| **cobalt(II) 2-ethylhexanoate (136-52-7)** |
|---|
| Not applicable |

| **methyl ethyl ketone (78-93-3)** | | |
|---|---|---|
| ACGIH | ACGIH TWA (ppm) | 200 ppm |
| ACGIH | ACGIH STEL (ppm) | 300 ppm |

| **1,6-hexanediol diacrylate (13048-33-4)** |
|---|
| Not applicable |

| **2-propanol (67-63-0)** | | |
|---|---|---|
| ACGIH | ACGIH TWA (ppm) | 200 ppm |
| ACGIH | ACGIH STEL (ppm) | 400 ppm |

### 8.2. Appropriate engineering controls

| | | |
|---|---|---|
| Appropriate engineering controls | : | Ensure exposure is below occupational exposure limits (where available). Ensure good ventilation of the work station. |
| Environmental exposure controls | : | Avoid release to the environment. |

### 8.3. Individual protection measures/Personal protective equipment

**Personal protective equipment:**

Avoid all unnecessary exposure.

**Hand protection:**

Wear protective gloves.

**Eye protection:**

Chemical goggles or safety glasses. 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 | : | clear |
| Odor | : | characteristic |
| Odor threshold | : | No data available |
| pH | : | No data available |
| Melting point | : | Not applicable |
| Freezing point | : | No data available |
| Boiling point | : | >= 79.4 °C |
| Flash point | : | 21 - 24 °C |
| Relative evaporation rate (butyl acetate=1) | : | No data available |
| Flammability (solid, gas) | : | Highly flammable liquid and vapour. |
| Vapor pressure | : | No data available |
| Relative vapor density at 20 °C | : | No data available |
| Relative density | : | <= 1.07 |
| Solubility | : | No data available |
| Log Pow | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity, kinematic | : | No data available |
| Viscosity, dynamic | : | No data available |
| Explosion limits | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | 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 vapour. 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 (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

| styrene, inhibited (100-42-5) | |
|---|---|
| LD50 oral rat | 5000 mg/kg (Rat; Literature study; >6000 mg/kg bodyweight; Rat; Weight of evidence) |
| LD50 dermal rat | > 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal) |
| LD50 dermal rabbit | 5010 mg/kg (Rabbit; Literature study) |
| LC50 inhalation rat (mg/l) | 11.8 mg/l air (4 h, Rat, Inconclusive, insufficient data, Inhalation (vapours)) |
| LC50 inhalation rat (ppm) | 2770 ppm/4h (Rat; Literature study) |
| ATE US (oral) | 5000 mg/kg body weight |
| ATE US (dermal) | 5010 mg/kg body weight |
| ATE US (gases) | 2770 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |

| cobalt(II) 2-ethylhexanoate (136-52-7) | |
|---|---|
| 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 US (oral) | 3129 mg/kg body weight |

| methyl ethyl ketone (78-93-3) | |
|---|---|
| LD50 oral rat | 2193 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male / female, Read-across, Oral) |
| LD50 dermal rabbit | > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal) |
| ATE US (oral) | 2193 mg/kg body weight |

| 2-propanol (67-63-0) | |
|---|---|
| LD50 oral rat | 5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rabbit | 16400 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value, Dermal, 14 day(s)) |
| LC50 inhalation rat (ppm) | > 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| ATE US (oral) | 5840 mg/kg body weight |
| ATE US (dermal) | 16400000 mg/kg body weight |

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.

| styrene, inhibited (100-42-5) | |
|---|---|
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |

| cobalt(II) 2-ethylhexanoate (136-52-7) | |
|---|---|
| IARC group | 2B - Possibly carcinogenic to humans |

| 2-propanol (67-63-0) | |
|---|---|
| IARC group | 3 - Not classifiable |

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

STOT-single exposure : May cause respiratory irritation.

| styrene, inhibited (100-42-5) | |
|---|---|
| STOT-single exposure | May cause respiratory irritation. |

| methyl ethyl ketone (78-93-3) | |
|---|---|
| STOT-single exposure | May cause drowsiness or dizziness. |

| 2-propanol (67-63-0) | |
|---|---|
| STOT-single exposure | May cause drowsiness or dizziness. |

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

| styrene, inhibited (100-42-5) | |
|---|---|
| STOT-repeated exposure | Causes damage to organs through prolonged or repeated exposure. |

Aspiration hazard : May be fatal if swallowed and enters airways.

Viscosity, kinematic : No data available

Potential Adverse human health effects and symptoms : Harmful if inhaled.

Symptoms/effects : May cause genetic defects (avoid skin contact and inhalation.). May cause cancer (avoid skin contact and inhalation.).

Symptoms/effects after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

| styrene, inhibited (100-42-5) | |
|---|---|
| LC50 fish 1 | 10 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, GLP) |
| EC50 Daphnia 1 | 4.7 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Flow-through system, Fresh water, Experimental value, GLP) |
| ErC50 (algae) | 4.9 mg/l (EPA OTS 797.1050, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |

| cobalt(II) 2-ethylhexanoate (136-52-7) | |
|---|---|
| LC50 fish 1 | 46.51 mg/l (LOEC; ASTM; 96 h; Pimephales promelas; Flow-through system; Fresh water; Read-across) |
| EC50 Daphnia 1 | 0.212 mg/l (NOEC; ASTM; 48 h; Ceriodaphnia dubia; Static system; Salt water; Read-across) |
| LC50 fish 2 | 54.1 mg/l (LC50; ASTM; 96 h; Pimephales promelas; Flow-through system; Fresh water; Read-across) |
| EC50 Daphnia 2 | 0.605 mg/l (LC50; ASTM; 48 h; Ceriodaphnia dubia; Static system; Salt water; Read-across) |
| Threshold limit algae 1 | 144 µg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Read-across) |
| Threshold limit algae 2 | 32.2 µg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Read-across) |

| methyl ethyl ketone (78-93-3) | |
|---|---|
| LC50 fish 1 | 2993 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, GLP) |
| EC50 Daphnia 1 | 308 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |
| ErC50 (algae) | 1972 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |

| 2-propanol (67-63-0) | |
|---|---|
| LC50 fish 1 | 9640 - 10000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal) |

### 12.2. Persistence and degradability

| CLEAR SUNSHIELD POLYESTER TOPCOAT (mixture) | |
|---|---|
| Persistence and degradability | Not established. |

| styrene, inhibited (100-42-5) | |
|---|---|
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Chemical oxygen demand (COD) | 2.8 g $O_2$/g substance |
| ThOD | 3.07 g $O_2$/g substance |
| BOD (% of ThOD) | 0.42 (Literature study) |

| cobalt(II) 2-ethylhexanoate (136-52-7) | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. No (test)data on mobility of the substance available. |

| methyl ethyl ketone (78-93-3) | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Not established. |
| Biochemical oxygen demand (BOD) | 2.03 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 2.31 g $O_2$/g substance |
| ThOD | 2.44 g $O_2$/g substance |

| 1,6-hexanediol diacrylate (13048-33-4) | |
|---|---|
| Persistence and degradability | Inherently biodegradable. |

| 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 $O_2$/g substance |
| Chemical oxygen demand (COD) | 2.23 g $O_2$/g substance |
| ThOD | 2.4 g $O_2$/g substance |

### 12.3. Bioaccumulative potential

| CLEAR SUNSHIELD POLYESTER TOPCOAT (mixture) | |
|---|---|
| Bioaccumulative potential | Not established. |

| styrene, inhibited (100-42-5) | |
|---|---|
| BCF fish 1 | 35.5 (Carassius auratus, Literature study) |
| Log Pow | 2.96 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

| cobalt(II) 2-ethylhexanoate (136-52-7) | |
|---|---|
| BCF fish 1 | 1.2 (BCF; 131 days; Seriola quinqueradiata; Static system; Salt water; Read-across) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| methyl ethyl ketone (78-93-3) | |
|---|---|
| Log Pow | 0.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 40 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). Not established. |

| 1,6-hexanediol diacrylate (13048-33-4) | |
|---|---|
| Bioaccumulative potential | No bioaccumulation data available. |

| 2-propanol (67-63-0) | |
|---|---|
| Log Pow | 0.05 (Weight of evidence approach, 25 °C) |
| 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 (20 °C) |
| Log Koc | 2.55 (log Koc, Estimated value) |
| Ecology - soil | Low potential for adsorption in soil. |

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

| methyl ethyl ketone (78-93-3) | |
|---|---|
| Surface tension | 0.024 N/m (20 °C) |
| Log Koc | 1.53 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. Slightly harmful to plants. |

| 2-propanol (67-63-0) | |
|---|---|
| Surface tension | 0.021 N/m (25 °C) |
| Log Koc | 0.185 - 0.541 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to approved disposal site.

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

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

**Department of Transportation (DOT)**

In accordance with DOT

Transport document description : UN1866 Resin solution, 3, II

UN-No.(DOT) : UN1866

Proper Shipping Name (DOT) : Resin solution

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : II - Medium Danger

Hazard labels (DOT) : 3 - Flammable liquid


DOT Packaging Non Bulk (49 CFR 173.xxx) : 173

DOT Packaging Bulk (49 CFR 173.xxx) : 242

| | | |
|---|---|---|
| DOT Special Provisions (49 CFR 172.102) | : | 149 - When transported as a limited quantity or a consumer commodity, the maximum net capacity specified in 173.150(b)(2) of this subchapter for inner packaging may be increased to 5 L (1.3 gallons).<br>383 - Packages containing toy plastic or paper caps for toy pistols described as “UN0349, Articles, explosive, n.o.s. (Toy caps), 1.4S” or “NA0337, Toy caps, 1.4S” are not subject to the subpart E (labeling) requirements of this part when offered for transportation by motor vehicle, rail freight, cargo vessel, and cargo aircraft and, notwithstanding the packing method assigned in §173.62 of this subchapter, in conformance with the following conditions:<br>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.<br>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.<br>T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)<br>TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.<br>TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when the flash point of the hazardous material transported is greater than 0 C (32 F). |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : | 150 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : | 5 L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : | 60 L |
| DOT Vessel Stowage Location | : | B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded. |
| Emergency Response Guide (ERG) Number | : | 127 |
| Other information | : | No supplementary information available. |

### Transportation of Dangerous Goods

### Transport by sea

| | | |
|---|---|---|
| Transport document description (IMDG) | : | UN 1866 RESIN SOLUTION, 3, II |
| UN-No. (IMDG) | : | 1866 |
| Proper Shipping Name (IMDG) | : | RESIN SOLUTION |
| Class (IMDG) | : | 3 - Flammable liquids |
| Packing group (IMDG) | : | II - substances presenting medium danger |

### Air transport

| | | |
|---|---|---|
| Transport document description (IATA) | : | UN 1866 Resin solution, 3, II |
| UN-No. (IATA) | : | 1866 |
| Proper Shipping Name (IATA) | : | Resin solution |
| 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)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Subject to reporting requirements of United States SARA Section 313<br>Listed on EPA Hazardous Air Pollutant (HAPS) | |
| CERCLA RQ | 1000 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard<br>Reactive hazard<br>Fire hazard<br>Delayed (chronic) health hazard |

| **cobalt(II) 2-ethylhexanoate (136-52-7)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

| **methyl ethyl ketone (78-93-3)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Not subject to reporting requirements of the United States SARA Section 313<br>Listed on EPA Hazardous Air Pollutant (HAPS) | |
| CERCLA RQ | 5000 lb |

| **1,6-hexanediol diacrylate (13048-33-4)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

| **2-propanol (67-63-0)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Subject to reporting requirements of United States SARA Section 313 |

### 15.2. International regulations

#### CANADA

| **styrene, inhibited (100-42-5)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **cobalt(II) 2-ethylhexanoate (136-52-7)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **methyl ethyl ketone (78-93-3)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **1,6-hexanediol diacrylate (13048-33-4)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **2-propanol (67-63-0)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

#### EU-Regulations

No additional information available

#### National regulations

| **styrene, inhibited (100-42-5)** |
|---|
| Listed on IARC (International Agency for Research on Cancer)<br>Listed as carcinogen on NTP (National Toxicology Program) |

### 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 | No significant risk level (NSRL) | Maximum allowable dose level (MADL) |
| Yes | No | No | No | 27 µg/day | |

| **Component** | **State or local regulations** |
|---|---|
| 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) List |
| methyl ethyl ketone(78-93-3) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| 2-propanol(67-63-0) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16: Other information

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

Revision date : 08/28/2019

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

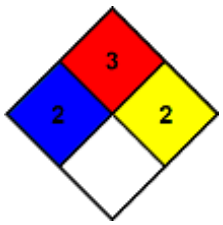
Full text of H-phrases:

| | |
|---|---|
| H225 | Highly flammable liquid and vapour |
| H226 | Flammable liquid and vapour |
| H304 | May be fatal if swallowed and enters airways |
| 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 |
| H400 | Very toxic to aquatic life |
| H401 | Toxic to aquatic life |
| H411 | Toxic to aquatic life with long lasting effects |

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 2 - Materials that readily undergo violent chemical change at elevated temperatures and pressures.




Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Personal protection : H

H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

SDS US (GHS HazCom 2012)

*To the best of our knowledge this SDS is accurate. The the extent allowed by law, this statement is made in lieu of an other warranties, expressed or implied including but not limited to any implied warranty of merchantability or fitness for a particular purpose and is in lieu of any other obligations or liability on the part of Dura Technoligies, Inc.*