

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



800-321-8511 FREI

Distributed By

Freeman Manufacturing & Supply Co.

www.freemansupply.com

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 Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2

Skin sensitization, Category 1 Carcinogenicity Category 2

Reproductive toxicity Category 2

Specific target organ toxicity (single exposure) Category 3

Specific target organ toxicity (repeated exposure) Category 1

Aspiration hazard Category 1

Hazardous to the aquatic environment - Acute Hazard Category 2

Full text of H statements : see section 16

H225 Highly flammable liquid and vapour

H315 Causes skin irritation

H319 Causes serious eye irritation

H317 May cause an allergic skin reaction

H351 Suspected of causing cancer

H361 Suspected of damaging fertility or the unborn child

H335 May cause respiratory irritation

H372 Causes damage to organs through prolonged or repeated exposure

H304 May be fatal if swallowed and enters airways

H401 Toxic to aquatic life

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

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smokina.

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.

Other hazards which do not result in classification

No additional information available

Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

Substances

Not applicable

3.2. **Mixtures**

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

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

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

		measu	

4.1.	Descri	ntion 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

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 eve 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.

Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and

symptoms

4.2.

: 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.

Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

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

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.

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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".

: Ventilate area. **Emergency procedures**

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.

Methods and material for containment and cleaning up

: Dam up the liquid spill. Contain released product, pump into suitable containers. For containment

: Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or Methods for cleaning up

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.

: Wear personal protective equipment. Wash hands and other exposed areas with mild soap and Precautions for safe handling 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 nonsparking 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.

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.

Keep only in the original container in a cool, well ventilated place away from : HEAT SPARKS Storage conditions

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

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

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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 No data available Decomposition temperature 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.

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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.

Incompatible materials

styrene, inhibited (100-42-5)

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

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.

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EC50 Daphnia 1

EC50 Daphnia 2

Threshold limit algae 1

Threshold limit algae 2

LC50 fish 2

styrene, inhibited (100-42-5)

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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.
Assissing bases	May be fetal if a valley and entere aim year
Aspiration hazard	: May be fatal if swallowed and enters airways. : No data available
/iscosity, kinematic	. No data avaliable
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.
-t	CHOOLS IT the Charletter.
styrene, inhibited (100-42-5) LC50 fish 1	10 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Flow-through
LOGO IISH I	system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	4.7 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Flowthrough 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)
FCF0 Danhaia 1	0.342 mg// (NOTC), ACTM, 40 h. Covindentain dubin, Statio system, Solt water, Dood garage

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subcapitata; Static system; Fresh water; Read-across)

subcapitata; Static system; Fresh water; Read-across)

Read-across)

0.212 mg/l (NOEC; ASTM; 48 h; Ceriodaphnia dubia; Static system; Salt water; Read-across)

0.605 mg/l (LC50; ASTM; 48 h; Ceriodaphnia dubia; Static system; Salt water; Read-across) 144 µg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella

54.1 mg/l (LC50; ASTM; 96 h; Pimephales promelas; Flow-through system; Fresh water;

32.2 µg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella

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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 O₂/g substance	
ThOD	3.07 g O₂/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 O₂/g substance	
Chemical oxygen demand (COD)	2.31 g O₂/g substance	
ThOD	2.44 g O₂/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 O₂/g substance	
Chemical oxygen demand (COD)	2.23 g O₂/g substance	
ThOD	2.4 g O₂/g substance	

12.3. Bioaccumulative potential

CLEAR SUNSHIELD POLYESTER TOPCOAT (mixture)		
Bioaccumulative potential	umulative 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.	

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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

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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).

383 - Packages containing toy plastic or paper caps for toy pistols described as "UN0349, Articles, explosive, n.o.s. (Toy caps), 1.45" or "NA0337, Toy caps, 1.45" 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:

B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.

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.

T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)

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. 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) DOT Quantity Limitations Passenger aircraft/rail : 5 L (49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

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

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

: 1866 UN-No. (IATA) Proper Shipping Name (IATA) : Resin solution 3 - Flammable Liquids Class (IATA) 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 Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Reactive hazard Fire hazard Delayed (chronic) health hazard

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cobalt(l) 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 Not subject to reporting requirements of the United States SARA Section 313 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 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) Listed as carcinogen on NTP (National Toxicology Program)

15.3. US State regulations

styrene, inhibite	ed (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

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SECTION 16: Other information

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: 08/28/2019 Revision date

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.

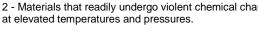
NFPA fire hazard

: 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



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)

: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high Physical

temperatures and pressures. Materials may react non-violently with water or undergo

hazardous polymerization in the absence of inhibitors.

Personal protection

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.

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