DURATEC COATING VOC

904-061

SUNSHIELD CLEAR POLYESTER TOPCOAT

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: 2.02 LB/GAL (242.6 GR/LITER)
MATERIAL VOC: 2.02 LB/GAL (242.6 GR/LITER)

NON-ATOMIZED APPLICATION

COATING VOC: 1.6 LB/GAL (191.7 GR/LITER)
MATERIAL VOC: 1.6 LB/GAL (191.7 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.

SUNSHIELD CLEAR POLYESTER TOPCOAT

Safety Data Sheet

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

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

1.1. Product identifier

Product form : Mixture

Trade name : SUNSHIELD CLEAR POLYESTER TOPCOAT

CAS No : mixture

Product code : 904-061

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
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 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
P321 - Specific treatment (see none listed. on this label)
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 (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

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	<= 60	Not classified
styrene, inhibited	(CAS No) 100-42-5	<= 30	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
methyl ethyl ketone	(CAS No) 78-93-3	<= 6	Flam. Liq. 2, H225 STOT SE 3, H336
1,6-hexanediol diacrylate	(CAS No) 13048-33-4	<= 5	Skin Irrit. 2, H315 Skin Sens. 1, H317
2-propanol	(CAS No) 67-63-0	<= 1	Flam. Liq. 2, H225 STOT SE 3, H336
n-butyl acetate	(CAS No) 123-86-4	<= 1	Flam. Liq. 3, H226 STOT SE 3, H336
isobutyl acetate	(CAS No) 110-19-0	<= 1	Flam. Liq. 2, H225
Solvent Naptha Petroleum Aliphatic	(CAS No) Proprietary	<= 1	Not classified
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.

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). 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: SEEK IMMEDIATE MEDICAL ATTENTION. 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.

Precautions for safe handling	:	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. Do not breathe dust/fume/gas/mist/vapors/spray.
Hygiene measures	:	Wash HANDS 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 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.
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

styrene, inhibited (100-42-5)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA ACGIH	ACGIH STEL (ppm)	20 ppm

methyl ethyl ketone (78-93-3)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	200 ppm

n-butyl acetate (123-86-4)		
USA ACGIH	ACGIH TWA (ppm)	150 ppm
USA ACGIH	ACGIH STEL (ppm)	200 ppm

2-propanol (67-63-0)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	200 ppm

isobutyl acetate (110-19-0)		
USA ACGIH	ACGIH TWA (ppm)	150 ppm
USA ACGIH	ACGIH STEL (ppm)	150 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	:	clear.
Odor	:	characteristic.

Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	>= 79.4 °C
Flash point	:	>= -11.1 °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	:	<=
Specific gravity / density	:	1.07
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

SUNSHIELD CLEAR (\f)mixture	
ATE CLP (vapors)	11.000 mg/l/4h

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	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)

styrene, inhibited (100-42-5)	
LC50 inhalation rat (ppm)	2770 ppm/4h (Rat; Literature study)
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

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 CLP (oral)	3129.000 mg/kg body weight

methyl ethyl ketone (78-93-3)	
LD50 oral rat	2737 mg/kg (Rat; Equivalent or similar to OECD 423; Read-across; 2054 mg/kg; Rat; Equivalent or similar to OECD 423; Read-across; 2328 mg/kg; Rat)
LD50 dermal rabbit	6480 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; >10; Rabbit)
LC50 inhalation rat (mg/l)	34 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	11300 ppm/4h (Rat; Literature study)
ATE CLP (oral)	2737.000 mg/kg body weight
ATE CLP (dermal)	6480.000 mg/kg body weight
ATE CLP (gases)	11300.000 ppmV/4h
ATE CLP (vapors)	34.000 mg/l/4h
ATE CLP (dust, mist)	34.000 mg/l/4h

n-butyl acetate (123-86-4)	
LD50 oral rat	10770 mg/kg (Rat)
LD50 dermal rabbit	> 17600 mg/kg (Rabbit)
ATE CLP (oral)	10770.000 mg/kg body weight

2-propanol (67-63-0)	
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

isobutyl acetate (110-19-0)	
LD50 oral rat	13400 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE CLP (oral)	13400.000 mg/kg body weight

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

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.
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

styrene, inhibited (100-42-5)	
LC50 fish 1	25 mg/l (96 h; Lepomis macrochirus; GLP)
LC50 other aquatic organisms 1	10 - 100 mg/l (96 h)
EC50 Daphnia 1	23 mg/l (48 h; Daphnia magna; Locomotor effect)
LC50 fish 2	32 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 2	27 mg/l (24 h; Daphnia magna; GLP)
TLM fish 1	25.1 mg/l (96 h; Lepomis macrochirus; Soft water)
TLM fish 2	46.4 mg/l (96 h; Pimephales promelas; Soft water)
TLM other aquatic organisms 1	10 - 100,96 h
Threshold limit other aquatic organisms 1	10 - 100,96 h; Pseudomonas putida
Threshold limit other aquatic organisms 2	72 mg/l
Threshold limit algae 1	> 200 mg/l (192 h; Scenedesmus quadricauda; Inhibitory)
Threshold limit algae 2	67 mg/l (Microcystis aeruginosa; Inhibitory)

cobalt(II) 2-ethylhexanoate (136-52-7)	
LC50 fish 1	54.1 mg/l (96 h; Pimephales promelas)
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; Lemna minor; Growth rate)

methyl ethyl ketone (78-93-3)	
LC50 fish 1	1690 mg/l (96 h; Lepomis macrochirus; Lethal)
EC50 Daphnia 1	308 mg/l (48 h; Daphnia magna; Locomotor effect)
LC50 fish 2	2990 mg/l (96 h; Pimephales promelas)
TLM fish 1	5600 mg/l (96 h; Gambusia affinis)
TLM fish 2	1690 mg/l (96 h; Lepomis macrochirus)
TLM other aquatic organisms 1	> 1000 ppm (96 h)
Threshold limit algae 1	110 mg/l (168 h; Microcystis aeruginosa)
Threshold limit algae 2	4300 mg/l (192 h; Scenedesmus quadricauda)

n-butyl acetate (123-86-4)	
LC50 fish 1	18 mg/l (96 h; Pimephales promelas)
LC50 other aquatic organisms 1	10 - 100 mg/l (96 h)
EC50 Daphnia 1	10 - 100 mg/l (48 h; Daphnia magna; Static system)
EC50 other aquatic organisms 1	320 mg/l (96 h; Algae)
LC50 fish 2	62 mg/l (96 h; Brachydanio rerio)

n-butyl acetate (123-86-4)	
EC50 Daphnia 2	24 - 205 mg/l (24 h; Daphnia magna)
TLM fish 1	10 - 100,96 h; Pisces
Threshold limit other aquatic organisms 1	10 - 100,96 h
Threshold limit algae 1	21 mg/l (168 h; Scenedesmus quadricauda; GROWTH RATE)
Threshold limit algae 2	280 mg/l (192 h; Microcystis aeruginosa; GROWTH RATE)

2-propanol (67-63-0)	
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)

isobutyl acetate (110-19-0)	
LC50 fish 1	100 mg/l (96 h; Lepomis macrochirus)
LC50 other aquatic organisms 1	10 - 100 mg/l (96 h)
EC50 Daphnia 1	44 mg/l (48 h; Daphnia magna; Nocivity test)
LC50 fish 2	101 mg/l (48 h; Leuciscus idus)
EC50 Daphnia 2	146 - 192 mg/l (Daphnia magna)
TLM fish 1	> 1000 ppm (96 h; Pisces)
Threshold limit other aquatic organisms 1	10 - 100,96 h; Protozoa
Threshold limit other aquatic organisms 2	411 mg/l (72 h)
Threshold limit algae 1	205 mg/l (192 h; Microcystis aeruginosa)
Threshold limit algae 2	80 mg/l (192 h; Scenedesmus quadricauda)

12.2. Persistence and degradability

SUNSHIELD CLEAR (mixture)	
Persistence and degradability	Not established.

styrene, inhibited (100-42-5)	
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^2/g substance
ThOD	3.07 g O^2/g substance
BOD (% of ThOD)	0.42 % ThOD

Proprietary Resin (TRADE SECRET)	
Persistence and degradability	Not established.

cobalt(II) 2-ethylhexanoate (136-52-7)	
Persistence and degradability	Biodegradability in water: no data 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)	1.92 g O^2/g substance
Chemical oxygen demand (COD)	2.31 g O^2/g substance
ThOD	2.44 g O^2/g substance
BOD (% of ThOD)	> % ThOD (5 day(s)) > 0.5

n-butyl acetate (123-86-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Not established.
Biochemical oxygen demand (BOD)	0.15 - 0.5 g O^2/g substance
Chemical oxygen demand (COD)	2.32 g O^2/g substance
ThOD	2.21 g O^2/g substance
BOD (% of ThOD)	46 % ThOD

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	2.40 g O^2/g substance
BOD (% of ThOD)	0.49 % ThOD

Solvent Naptha Petroleum Aliphatic (Proprietary)	
Persistence and degradability	May cause long-term adverse effects in the environment.

isobutyl acetate (110-19-0)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photolysis in the air. Not established.
ThOD	2.2 g O^2/g substance
BOD (% of ThOD)	0.60 % ThOD

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

12.3. Bioaccumulative potential

SUNSHIELD CLEAR (mixture)	
Bioaccumulative potential	Not established.

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.

cobalt(II) 2-ethylhexanoate (136-52-7)	
Bioaccumulative potential	No bioaccumulation data available.

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.

n-butyl acetate (123-86-4)	
BCF fish 1	14 (Pisces)
Log Pow	1.79 - 2.06
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

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

Solvent Naptha Petroleum Aliphatic (Proprietary)	
Bioaccumulative potential	Not established.

isobutyl acetate (110-19-0)	
BCF fish 1	4 - 9.7 (Pisces; Estimated value)
Log Pow	1.59 - 1.78
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

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

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)

methyl ethyl ketone (78-93-3)	
Surface tension	0.024 N/m (20 °C)
Ecology - soil	Slightly harmful to plants.

n-butyl acetate (123-86-4)	
Surface tension	0.0145 N/m (25 °C)

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

isobutyl acetate (110-19-0)	
Surface tension	0.024 N/m (20 °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 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

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 : 

Tunnel restriction code : D/E

LQ : 5l

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

methyl ethyl ketone (78-93-3)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb

n-butyl acetate (123-86-4)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire 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
Acute Tox. 4 (Inhalation:vapour)	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
Carc. 2	H351

Repr. 2	H361
STOT RE 2	H373

Full text of H-phrases: see section 16

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

F; R11
Xn; R20
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)

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

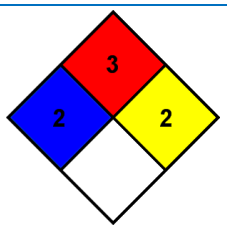
SECTION 16: Other information

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.



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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