Safety Data Sheet GenFlex Roofing Systems

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • **EZ TPO Cut Edge Sealant Tan**

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

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

genflexmsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to EU Directive 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Flammable Liquids 3 - H226
Aspiration 1 - H304
Skin Irritation 2 - H315
Acute Toxicity Inhalation 4 - H332

DSD/DPD • Flammable
Harmful (Xn)
Irritant (Xi)
R10, R20/21, R38, R65

2.2 Label Elements

CLP

DANGER

Hazard statements • H226 - Flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation

H332 - Harmful if inhaled

Precautionary statements

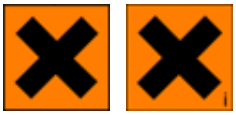
Prevention
- P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground and/or bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing mist/vapours/spray.
P264 - Wash thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response
- P370+P378 - In case of fire: Use appropriate media for extinction.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P321 - Specific treatment, see supplemental first aid information.
P362 - Take off contaminated clothing and wash before reuse.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 - Do NOT induce vomiting.

Storage/Disposal
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P235 - Keep cool.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information
- 22.5 percent of this product consists of an ingredient of unknown toxicity.

DSD/DPD



Risk phrases
- R10 - Flammable.
R20/21 - Harmful by inhalation and in contact with skin.
R38 - Irritating to skin.
R65 - Harmful: may cause lung damage if swallowed.

Safety phrases
- S36 - Wear suitable protective clothing.

2.3 Other Hazards

CLP
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012
- Flammable Liquids 3 - H226
Aspiration 1 - H304
Skin Irritation 2 - H315
Eye Irritation 2 - H319
Acute Toxicity Inhalation 4 - H332
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
Reproductive Toxicity 2 - H361

2.2 Label elements

OSHA HCS 2012

DANGER

Hazard statements

- Flammable liquid and vapour - H226
- May be fatal if swallowed and enters airways - H304
- Causes skin irritation - H315
- Causes serious eye irritation - H319
- Harmful if inhaled - H332
- May cause respiratory irritation - H335
- May cause drowsiness or dizziness - H336
- Suspected of damaging fertility or the unborn child. - H361

Precautionary statements

Prevention

- Obtain special instructions before use. - P201
- Do not handle until all safety precautions have been read and understood. - P202
- Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210
- Keep container tightly closed. - P233
- Ground and/or bond container and receiving equipment. - P240
- Use explosion-proof electrical/ventilating/lighting/equipment. - P241
- Use only non-sparking tools. - P242
- Take precautionary measures against static discharge. - P243
- Avoid breathing mist/vapours/spray. - P261
- Wash thoroughly after handling. - P264
- Use only outdoors or in a well-ventilated area. - P271
- Wear protective gloves/protective clothing/eye protection/face protection. - P280

Response

- In case of fire: Use appropriate media for extinction. - P370+P378
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
- Call a POISON CENTER or doctor/physician if you feel unwell. - P312
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
- Specific treatment, see supplemental first aid information. - P321
- Wash with plenty of soap and water. - P352
- Take off contaminated clothing and wash before reuse. - P362
- If skin irritation occurs: Get medical advice/attention. - P332+P313
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
- If eye irritation persists: Get medical advice/attention. - P337+P313
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. - P301+P310
- Do NOT induce vomiting. - P331
- IF exposed or concerned: Get medical advice/attention. - P308+P313

Storage/Disposal

- Store in a well-ventilated place. Keep container tightly closed. - P403+P233
- Keep cool. - P235
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

Supplemental information

- 22.5 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2A

Other Toxic Effects - D2B

2.2 Label elements

WHMIS

- Flammable Liquids - B2
  Other Toxic Effects - D2A
  Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	**Identifiers**	**%**	**LD50/LC50**	**Classifications According to Regulation/Directive**	**Comments**
Xylene	**CAS:**1330-20-7 **EC Number:**215-535-7	25% TO 50%	Ingestion/Oral-Rat LD50 • 4300 mg/kg Inhalation-Rat LC50 • 5000 ppm 4 Hour(s) Skin-Rabbit LD50 • >1700 mg/kg	**EU DSD/DPD:** Annex I: R10 Xn; R20/21 Xi; R38 **EU CLP:** Annex VI: Flam. Liq. 3, H225; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315 **OSHA HCS 2012:** Flam Liq. 3; Acute Tox. 4 (skn); Acute Tox 4 (inhl); Eye Irrit. 2, Skin Irrit. 2, Repr. 2; STOT SE 3: Resp. Irrit. & Narc	NDA
Ethylbenzene	**CAS:**100-41-4 **EC Number:**202-849-4	5% TO 20%	Skin-Rabbit LD50 • 17800 µL/kg Ingestion/Oral-Rat LD50 • 3500 mg/kg Inhalation-Rat LC50 • 55000 mg/m³ 2 Hour(s)	**EU DSD/DPD:** Annex I: F; R11 Xn; R20 **EU CLP:** Annex VI: Flam. Liq. 2, H225; Acute Tox. 4*, H332 **OSHA HCS 2012:** Flam. Liq. 2; Eye Irrit. 2A; Carc. 2; Acute Tox. 4 (inhl); Repr. 2; STOT SE 3: Narc.	NDA
Distillates (petroleum), hydrotreated light	**CAS:**64742-47-8 **EC Number:**265-149-8	5% TO 20%	NDA	**EU DSD/DPD:** Annex I: Xn; R65 **EU CLP:** Annex VI: Asp. Tox. 1; H304 **OSHA HCS 2012:** Flam. Liq. 4; Asp. Tox. 1	NDA

Titanium dioxide	**CAS:**13463-67-7 **EC Number:**236-675-5	<= 2.5%	NDA	**EU DSD/DPD:** Self Classified: Carc. 3 R40 **EU CLP:** Self Classified: Carc. 2, H351 **OSHA HCS 2012:** Carc. 2	Titanium dioxide is carcinogenic if inhaled. It is not expected to be released from this product under normal conditions of use therefore carcinogenic effects from this component are not expected.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion
- Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media
- LARGE FIRES: Water spray, fog or alcohol-resistant foam.
  SMALL FIRES: Dry chemical, CO2, water spray or alcohol-resistant foam.

Unsuitable Extinguishing Media
- Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
  Containers may explode when heated.
  Vapor explosion hazard indoors, outdoors or in sewers.
  Many liquids are lighter than water.
  Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
  Runoff to sewer may create fire or explosion hazard.
  Vapors may form explosive mixtures with air.
  Vapors may travel to source of ignition and flash back.
  Dried solids can burn and release toxic fumes and vapors.

Hazardous Combustion Products
- No data available

5.3 Advice for firefighters

- No action shall be taken involving any personal risk or without suitable training.
  Move containers from fire area if you can do it without risk.
  Structural firefighters' protective clothing will only provide limited protection.
  Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours, spray.

Emergency Procedures

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) Keep out of low areas. Stay upwind. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
  A vapor suppressing foam may be used to reduce vapors.
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Use clean non-sparking tools to collect absorbed material.
  All equipment used when handling the product must be grounded.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Keep away from fire, sparks and heated surfaces. Use only in well ventilated areas. Avoid contact with skin, eyes, and clothing. Wear appropriate personal protective equipment, avoid direct contact. All equipment used when handling the product must be grounded. Bond and ground all transfer containers and equipment. Take precautionary measures against static charges. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container. Do not eat, drink or smoke when using this product. After handling wash hands thoroughly. Prevent formation of aerosols. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Keep container tightly closed. Store away from oxidizing agents.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba

Titanium dioxide (13463-67-7)	TWAs	10 mg/m3 TWA	10 mg/m3 TWA	10 mg/m3 TWA	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction)	10 mg/m3 TWA
Ethylbenzene (100-41-4)	STELs	Not established	125 ppm STEL; 551 mg/m3 STEL	125 ppm STEL; 543 mg/m3 STEL	Not established	Not established
	TWAs	20 ppm TWA	100 ppm TWA; 442 mg/m3 TWA	100 ppm TWA; 434 mg/m3 TWA	20 ppm TWA	20 ppm TWA
Distillates (petroleum), hydrotreated light (64742-47-8)	TWAs	Not established	Not established	Not established	200 mg/m3 TWA (application restricted to conditions in which there are negligible aerosol exposures, as total Hydrocarbon vapour)	Not established
Xylene (1330-20-7)	STELs	150 ppm STEL	100 ppm STEL; 442 mg/m3 STEL	150 ppm STEL; 651 mg/m3 STEL	150 ppm STEL	150 ppm STEL
	TWAs	100 ppm TWA	50 ppm TWA; 221 mg/m3 TWA	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA	100 ppm TWA

Exposure Limits/Guidelines (Con't.)

	Result	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario
Titanium dioxide (13463-67-7)	TWAs	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	10 mg/m3 TWA
Ethylbenzene (100-41-4)	STELs	125 ppm STEL; 543 mg/m3 STEL	125 ppm STEL; 542 mg/m3 STEL	Not established	125 ppm STEL; 542 mg/m3 STEL	Not established
	TWAs	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA; 434 mg/m3 TWA	20 ppm TWA	100 ppm TWA; 434 mg/m3 TWA	20 ppm TWA
Xylene (1330-20-7)	STELs	150 ppm STEL; 651 mg/m3 STEL	150 ppm STEL; 652 mg/m3 STEL	150 ppm STEL	150 ppm STEL; 652 mg/m3 STEL	150 ppm STEL
	TWAs	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA

Exposure Limits/Guidelines (Con't.)

	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	Cyprus	Denmark
Titanium dioxide (13463-67-7)	TWAs	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust)	10 mg/m3 TWA	30 mppcf TWA (as Ti); 10 mg/m3 TWA (as Ti)	Not established	6 mg/m3 TWA (as Ti)
	STELs	Not established	Not established	20 mg/m3 STEL (as Ti)	Not established	Not established
Ethylbenzene (100-41-4)	TWAs	100 ppm TWAEV; 434 mg/m3 TWAEV	100 ppm TWA	100 ppm TWA; 435 mg/m3 TWA	100 ppm TWA; 442 mg/m3 TWA	50 ppm TWA; 217 mg/m3 TWA
	STELs	125 ppm STEV; 543 mg/m3 STEV	Not established	125 ppm STEL; 545 mg/m3 STEL	200 ppm STEL; 884 mg/m3 STEL	Not established
Xylene (1330-20-7)	TWAs	100 ppm TWAEV; 434 mg/m3 TWAEV	100 ppm TWA	100 ppm TWA; 435 mg/m3 TWA	50 ppm TWA; 221 mg/m3 TWA	25 ppm TWA; 109 mg/m3 TWA
	STELs	150 ppm STEV; 651 mg/m3 STEV	Not established	150 ppm STEL; 650 mg/m3 STEL	100 ppm STEL; 442 mg/m3 STEL	Not established

Exposure Limits/Guidelines (Con't.)					
	Result	**Germany DFG**	**Germany TRGS**	**NIOSH**	**OSHA**
Titanium dioxide (13463-67-7)	TWAs	Not established	Not established	Not established	15 mg/m3 TWA (total dust)
Ethylbenzene (100-41-4)	TWAs	Not established	20 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 88 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)	100 ppm TWA; 435 mg/m3 TWA	100 ppm TWA; 435 mg/m3 TWA
	STELs	Not established	Not established	125 ppm STEL; 545 mg/m3 STEL	Not established
	Ceilings	40 ppm Peak; 176 mg/m3 Peak	Not established	Not established	Not established
	MAKs	20 ppm TWA MAK; 88 mg/m3 TWA MAK	Not established	Not established	Not established
Distillates (petroleum), hydrotreated light (64742-47-8)	Ceilings	40 ppm Peak; 280 mg/m3 Peak	Not established	Not established	Not established
	MAKs	20 ppm TWA MAK; 140 mg/m3 TWA MAK	Not established	Not established	Not established
Xylene (1330-20-7)	TWAs	Not established	100 ppm TWA AGW (all isomers, exposure factor 2); 440 mg/m3 TWA AGW (all isomers, exposure factor 2)	Not established	100 ppm TWA; 435 mg/m3 TWA
	Ceilings	200 ppm Peak (all isomers); 880 mg/m3 Peak (all isomers)	Not established	Not established	Not established
	MAKs	100 ppm TWA MAK (all isomers); 440 mg/m3 TWA MAK (all isomers)	Not established	Not established	Not established

Exposure Control Notations

Cyprus

•Ethylbenzene (100-41-4): **Skin:** (Skin-potential for cutaneous absorption) | **Skin:** (Skin-potential for cutaneous absorption)

Germany TRGS

•Ethylbenzene (100-41-4): **Skin:** (skin notation) | **Skin:** (skin notation (all isomers))

Germany DFG

•Distillates (petroleum), hydrotreated light (64742-47-8): **Carcinogens:** (Category 3B (could be carcinogenic for man, isomers in technical mixtures)) | **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Carcinogens:** (Category 3A (could be carcinogenic for man, inhalable fraction with the exception of ultra small particles)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Pregnancy:** (classification not yet possible (all isomers)) | **Skin:** (skin notation) | **Skin:** (skin notation (all isomers))

8.2 Exposure controls

Engineering

- Good general ventilation should be used. Ventilation rates should be matched to

Measures/Controls

conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear splash goggles.

Skin/Body

- Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
NIOSH = National Institute of Occupational Safety and Health
OSHA = Occupational Safety and Health Administration
STEL = Short Term Exposure Limits are based on 15-minute exposures
STEV = Short Term Exposure Value
TWAEV = Time-Weighted Average Exposure Value
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Tan, viscous liquid with a characteristic odor.
Color	Tan	Odor	Characteristic
Odor Threshold	Data lacking		
General Properties			
Boiling Point	137 C(278.6 F)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	0.939 Water=1	Water Solubility	Immiscible
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	9.5 hPa @ 20 C(68 F)	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	30 C(86 F)	UEL	7.8 %
LEL	.5 %	Autoignition	Data lacking
Flammability (solid, gas)	Flammable Liquid.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- Oxidizing agents.

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide, and hydrocarbons.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Component Name	CAS	Data
Xylene (25% TO 50%)	1330-20-7	**Acute Toxicity:** orl-mam LD50:4300 mg/kg; ihl-rat LC50:5000 ppm/4H; skn-rbt LD50:>1700 mg/kg; **Irritation:** eye-rbt 5 mg/24H SEV; skn-rbt 100% MOD; **Reproductive:** ihl-rat TCLo:50 mg/m3/6H (1-21D preg)
Ethylbenzene (5% TO 20%)	100-41-4	**Acute Toxicity:** orl-rat LD50:3500 mg/kg; ihl-rat LC50:55000 mg/m3/2H; skn-rbt LD50:17800 uL/kg; **Irritation:** eye-rbt 500 mg SEV; skn-rbt 15 mg/24H open MLD; **Reproductive:** ihl-rat TCLo:1000 ppm (6H/6-20D preg)
Titanium dioxide (<= 2.5%)	13463-67-7	**Irritation:** skn-hmn 300 ug/3D-I MLD; **Tumorigen/Carcinogen:** ihl-rat TCLo:250 mg/m3/6H/2Y-I

GHS Properties	Classification
Acute toxicity	**EU/CLP** • Acute Toxicity - Inhalation 4 - ATEmix (Inhl)=1.66 mg/L (mist) 12.1 mg/L (vapor) **OSHA HCS 2012** • Acute Toxicity - Inhalation 4 - ATEmix (inhl)= 1.66 mg/L (mist) 12.1 mg/L(vapor)
Aspiration Hazard	**EU/CLP** • Aspiration 1 **OSHA HCS 2012** • Aspiration 1
Carcinogenicity	**EU/CLP** • Classification criteria not met **OSHA HCS 2012** • Classification criteria not met
Germ Cell Mutagenicity	**EU/CLP** • Classification criteria not met **OSHA HCS 2012** • Classification criteria not met
Skin corrosion/Irritation	**EU/CLP** • Skin Irritation 2 **OSHA HCS 2012** • Skin Irritation 2
Skin sensitization	**EU/CLP** • Classification criteria not met **OSHA HCS 2012** • Classification criteria not met
STOT-RE	**EU/CLP** • Classification criteria not met **OSHA HCS 2012** • Classification criteria not met
STOT-SE	**EU/CLP** • Classification criteria not met **OSHA HCS 2012** • Specific Target Organ Toxicity Single Exposure 3: Narcotic

	Effects;Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Toxicity for Reproduction	**EU/CLP** • Classification criteria not met **OSHA HCS 2012** • Toxic to Reproduction 2
Respiratory sensitization	**EU/CLP** • Classification criteria not met **OSHA HCS 2012** • Classification criteria not met
Serious eye damage/Irritation	**EU/CLP** • Classification criteria not met **OSHA HCS 2012** • Eye Irritation 2

Route(s) of entry/exposure
- Inhalation, Skin, Eye, Ingestion

Potential Health Effects

Inhalation

Acute (Immediate)
- Harmful if inhaled. May cause respiratory irritation. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)
- No data available

Skin

Acute (Immediate)
- Causes skin irritation.

Chronic (Delayed)
- No data available

Eye

Acute (Immediate)
- Causes serious eye irritation.

Chronic (Delayed)
- No data available.

Ingestion

Acute (Immediate)
- Material may be aspirated into the lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.

Chronic (Delayed)
- No data available.

Other

Chronic (Delayed)
- May cause damage to organs through prolonged or repeated exposure.

Carcinogenic Effects
- Although this material does contain components that are either carcinogens or potential carcinogens the material as a whole is not classified as a carcinogen.

Carcinogenic Effects

	CAS	IARC
Titanium dioxide	13463-67-7	Group 2B-Possible Carcinogen
Ethylbenzene	100-41-4	Group 2B-Possible Carcinogen

Reproductive Effects
- May cause adverse reproductive effects - such as birth defects, miscarriages or infertility based on animal data.

Key to abbreviations

LC = Lethal Concentration
LD = Lethal Dose
MLD = Mild
MOD = Moderate
TC = Toxic Concentration

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives, containing a flammable liquid	3	III	NDA
TDG	UN1133	ADHESIVES containing flammable liquid	3	III	Potential Marine Pollutant
IMO/IMDG	UN1133	Adhesives	3	III	NDA
ADN	UN1133	ADHESIVES containing flammable liquid	3	III	NDA
ADR/RID	UN1133	ADHESIVES	3	III	NDA
IATA/ICAO	UN1133	Adhesives	3	III	NDA

14.6 Special precautions for user
- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- Not relevant.

Section 15 - Regulatory Information

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

SARA Hazard Classifications
- Acute, Chronic, Fire

State Right To Know				
Component	**CAS**	**MA**	**NJ**	**PA**
Xylene	1330-20-7	Yes	Yes	Yes

Distillates (petroleum), hydrotreated light	64742-47-8	No	No	No
Ethylbenzene	100-41-4	Yes	Yes	Yes
Titanium dioxide	13463-67-7	Yes	Yes	Yes

Inventory						
Component	**CAS**	**Canada DSL**	**Canada NDSL**	**EU EINECS**	**EU ELNICS**	**TSCA**
Xylene	1330-20-7	Yes	No	Yes	No	Yes
Distillates (petroleum), hydrotreated light	64742-47-8	Yes	No	Yes	No	Yes
Ethylbenzene	100-41-4	Yes	No	Yes	No	Yes
Titanium dioxide	13463-67-7	Yes	No	Yes	No	Yes

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 0.02 mg/m3 MAHCL
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 0.1 mg/m3 MAHCL

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 0.02 mg/m3 MAHCL
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 B2, D2A, D2B
- Titanium dioxide 13463-67-7 D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Titanium dioxide, mixture containing on Health Canada's WHMIS Division

website.)

- Xylene 1330-20-7 B2, D2A, D2B

Canada - WHMIS - Ingredient Disclosure List

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 0.1 %
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 Not Listed

Environment

Canada - CEPA - Priority Substances List

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 Priority Substance List 1 (substance not considered toxic)

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

- Distillates (petroleum), hydrotreated light 64742-47-8 Xn; R65
- Ethylbenzene 100-41-4 F; R11 Xn; R20
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 R10 Xn; R20/21 Xi; R38

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 12.5%<=C: Xn; R:20/21

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

- Distillates (petroleum), hydrotreated light 64742-47-8 Xn R:65 S:(2)-23-24-62
- Ethylbenzene 100-41-4 F Xn R:11-20 S:(2)-16-24/25-29
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 Xn R:10-20/21-38 S:(2)-25

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

- Distillates (petroleum), hydrotreated light 64742-47-8 Not Listed
- Ethylbenzene 100-41-4 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Xylene 1330-20-7 C

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

- Distillates (petroleum), hydrotreated light 64742-47-8 S:(2)-23-24-62
- Ethylbenzene 100-41-4 S:(2)-16-24/25-29

• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	S:(2)-25

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Environment

Germany - TA Luft - Types and Classes

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	ID Number 1345, not considered hazardous to water
• Xylene	1330-20-7	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Distillates (petroleum), hydrotreated light	64742-47-8	ID Number 5350, hazard class 1 - low hazard to waters
• Ethylbenzene	100-41-4	ID Number 99, hazard class 1 - low hazard to waters
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	ID Number 206, hazard class 2 - hazard to waters

Germany - Water Classification (VwVwS) - Annex 3

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	(listed under Ethyl benzene)
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	(isomers and mixtures)

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed

• Ethylbenzene	100-41-4	1000 lb final RQ; 454 kg final RQ
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	0.1 % de minimis concentration
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	1.0 % de minimis concentration

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Included in waste stream: F039
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Included in waste stream: F039

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	0.057 mg/L (wastewater); 10 mg/kg (nonwastewater)

• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	0.32 mg/L (wastewater); 30 mg/kg (nonwastewater)

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	(total)

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	waste number U239 (Ignitable waste)

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	carcinogen, initial date 6/11/04
• Titanium dioxide	13463-67-7	carcinogen, initial date 9/2/11 (airborne, unbound particles of respirable size)
• Xylene	1330-20-7	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	54 µg/day NSRL (inhalation); 41 µg/day NSRL (oral)
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Xylene	1330-20-7	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H225 - Highly flammable liquid and vapour
  H312 - Harmful in contact with skin

  R11 - Highly flammable.
  R20 - Harmful by inhalation.

Last Revision Date
- 28/October/2013

Preparation Date
- 28/October/2013

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Key to abbreviations

NDA = No data available