



# Safety Data Sheet

## Liquid TPO® BIO Flashing Grade

### Hazard statement(s)

H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H411	Toxic to aquatic life with long lasting effects
H317	May cause an allergic skin reaction
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

### Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378	In case of fire: Use foam, fog, dry chemical CO2, or water to extinguish.
P403+P235	Store in a well ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with Federal, State and local regulations
P264	Wash any exposed skin thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P403+P233	Store in a well ventilated place. Keep container tightly closed.
P405	Store locked up.
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P321	Specific treatment (see first aid instructions on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P273	Avoid release to the environment.
P391	Collect spillage.

### Other hazards which do not result in classification

No data available.

### Statement regarding ingredients of unknown toxicity (OSHA)

Not applicable.

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## SECTION 3: Composition/information on ingredients

### Mixtures

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### Hazardous components

#### 1. Component 1 (trade secret)

Concentration 5 - 10 % (Weight)

#### 2. Calcium carbonate

Concentration 20 - 40 % (Weight)

CAS no. 471-34-1

#### 3. TITANIUM DIOXIDE

Concentration 10 - 20 % (Weight)

CAS no. 13463-67-7

#### 4. Solvent naphtha (petroleum), light arom

Concentration 15 - 25 % (Weight)

CAS no. 64742-95-6

- Flammable liquids (chapter 2.6), Cat. 3

- Acute toxicity (chapter 3.1), Cat. 4

- Skin corrosion/irritation (chapter 3.2), Cat. 2

H226 Flammable liquid and vapor

H312 Harmful in contact with skin

H315 Causes skin irritation

H332 Harmful if inhaled

#### 5. Component 5 (trade secret)

Concentration 10 - 15 % (Weight)

#### 6. Component 6 (trade secret)

Concentration 10 - 20 % (Weight)

#### 7. zinc bis(dibutyldithiocarbamate)

Concentration 1 - < 0 % (Weight)

EC no. 205-232-8

CAS no. 136-23-2

Index no. 006-081-00-9

- Eye damage/irritation (chapter 3.3), Cat. 2

- Specific target organ toxicity, single exposure (chapter 3.8), Cat. 3

- Skin corrosion/irritation (chapter 3.2), Cat. 2

- Sensitization, skin (chapter 3.4), Cat. 1

- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 1

- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

#### 8. Component 8 (trade secret)

Concentration 2 - 8 % (Weight)

#### Trade secret statement (OSHA 1910.1200(i))

Specific chemical identity and exact percentage (concentration) of composition has been withheld as a trade secret.

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## SECTION 4: First-aid measures

### Description of necessary first-aid measures

General advice In case of accident or if you feel unwell, seek medical advice IMMEDIATELY. (Show the product label where possible)

If inhaled Remove victim from exposure to well-ventilated area. If breathing is labored, qualified personnel should administer oxygen. Apply artificial respiration if breathing has ceased or shows signs of failing. Call a Physician.

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In case of skin contact	Remove contaminated clothing. Immediately wash affected areas thoroughly with soap and water. If irritation, redness, or a burning sensation develops and persists, obtain medical advice. Contaminated clothing should be thoroughly cleaned before reuse.
In case of eye contact	Immediately flush eyes running water for a minimum of 15 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY.
If swallowed	Do NOT induce vomiting. Provided the patient is conscious, wash out mouth with water then give 1 or 2 glasses of water to drink. This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage. Refer person to medical personnel for immediate attention.
Personal protective equipment for first-aid responders	None.

### **Most important symptoms/effects, acute and delayed**

No data available.

### **Indication of immediate medical attention and special treatment needed, if necessary**

No data available.

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## **SECTION 5: Fire-fighting measures**

### **Suitable extinguishing media**

Use foam, fog, dry chemical CO<sub>2</sub>, or water.

### **Specific hazards arising from the chemical**

Carbon oxides

### **Special protective actions for fire-fighters**

As appropriate for surrounding materials/equipment. If electrical equipment is involved, the use of foam should be avoided. No unusual fire or explosion hazards.

### **Further information**

No data available.

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## **SECTION 6: Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Ventilate area.

### **Environmental precautions**

In case of large spill, dike the area to prevent this material from entering water systems or sewers.

### **Methods and materials for containment and cleaning up**

Absorb spill with an absorbent material such as sawdust, vermiculite or sand, and place in a closed container.

### **Reference to other sections**

No data available.

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## **SECTION 7: Handling and storage**

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### Precautions for safe handling

Avoid open flames, electrical sparks or static electricity.

### Conditions for safe storage, including any incompatibilities

Keep containers properly sealed and when stored indoors, in a well-ventilated area. Avoid storage above 110 °F

### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### Control parameters

#### 1. Titanium dioxide - Total dust (CAS: 13463-67-7)

PEL (Inhalation): 15 mg/m<sup>3</sup> (OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 2. Titanium dioxide - Total dust (CAS: 13463-67-7)

PEL (Inhalation): See PNOR (Cal/OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 3. Titanium dioxide - Total dust (CAS: 13463-67-7)

REL (Inhalation): Ca, (ultrafine particles), 2.4 mg/m<sup>3</sup> (fine), 0.3 mg/m<sup>3</sup> (ultrafine), See Appendix A, See Appendix C (NIOSH)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 4. Xylenes (o-, m-, p-isomers) (CAS: 1330-20-7)

PEL (Inhalation): 100 ppm (OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 5. Xylenes (o-, m-, p-isomers) (CAS: 1330-20-7)

PEL (Inhalation): 435 mg/m<sup>3</sup> (OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 6. Xylenes (o-, m-, p-isomers) (CAS: 1330-20-7)

PEL (Inhalation): 100 ppm, (ST) 150 ppm, (C) 300 ppm (Cal/OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 7. Xylenes (o-, m-, p-isomers) (CAS: 1330-20-7)

REL (Inhalation): 100 ppm, (ST) 150 ppm (NIOSH)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 8. Ethyl benzene (CAS: 100-41-4)

PEL (Inhalation): 100 ppm (OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 9. Ethyl benzene (CAS: 100-41-4)

PEL (Inhalation): 435 mg/m<sup>3</sup> (OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 10. Ethyl benzene (CAS: 100-41-4)

PEL (Inhalation): 100 ppm, (ST) 125 ppm (Cal/OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 11. Ethyl benzene (CAS: 100-41-4)

REL (Inhalation): 100 ppm, (ST) 125 ppm (NIOSH)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

### Appropriate engineering controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV (s). General ventilation is recommended. Additional local exhaust ventilation is recommended where vapors, mists, or aerosols may be released. For guidance on engineering control measures refer to publications such as the ACGIH current edition of "Industrial Ventilation, a manual of Recommended Practice."

### Individual protection measures, such as personal protective equipment (PPE)

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### Eye/face protection

Chemical splash goggles in compliance with OSHA regulations are advised. However, OSHA regulations also permit other types of safety glasses. (Consult your safety equipment supplier)

### Skin protection

Wear protective clothing to prevent skin contact. Keep exposed skin area to a minimum. Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH. Eye wash station and safety shower should be available.

### Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

This product has demonstrated no observable effects at room temperature; however, it is highly recommended that an air-purifying respirator with organic filter cartridges be worn. In addition, in any interior, confined space, spray application, a supplied air source must be provided. When the product is sprayed or heated without adequate ventilation, an approved MSHA/NIOSH positive-pressure, supplied-air respirator may be required. Air purifying respirators equipped with organic vapor cartridges and a Hepa (P100) particulate filter may be used under certain conditions when a cartridge change-out schedule has been developed in accordance with the OSHA preparatory protection standard (29 CFR. 1910.134).

### Thermal hazards

No data available.

### Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance/form	Viscous liquid
Odor	Solvent odor
Odor threshold	No data available.
pH	8.5 – 9.0
Melting point/freezing point	No data
Initial boiling point and boiling range	313°F - 572°F (156°C - 300°C)
Flash point	114°F
Evaporation rate	.36
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data
Upper/lower explosive limits	0.5% / 6.0%
Vapor pressure	2.9
Vapor density	Heavier than air
Relative density	No data
Solubility(ies)	Insoluble in water
Partition coefficient: n-octanol/water	No data
Auto-ignition temperature	No data
Decomposition temperature	No data
Viscosity	4,000 - 12,000 cps
Explosive properties	No data
Oxidizing properties	No data

### Other safety information

No data available.

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### SECTION 10: Stability and reactivity

**Reactivity**

No data available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None known.

**Conditions to avoid**

Avoid storage above 110°F.

**Incompatible materials**

Strong oxidizing agents.

**Hazardous decomposition products**

By fire: Carbon Dioxide, Carbon Monoxide

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### SECTION 11: Toxicological information

**Information on toxicological effects****Acute toxicity**

No information available.

**Skin corrosion/irritation**

Exposure causes skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying and cracking. Skin absorption is possible, but harmful effects are not expected from this route of exposure under normal conditions of handling and use

**Serious eye damage/irritation**

Exposure to liquid or vapor causes eye irritation. Symptoms may include stinging, tearing, redness and swelling.

**Respiratory or skin sensitization**

Short-term inhalation toxicity is low. Breathing small amounts during normal handling is not likely to cause harmful effects. Breathing large amounts may cause overexposure symptoms, such as headache, nausea, and irritation of nose and throat.

**Carcinogenicity**

The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSDHA, and not listed as carcinogens by NTP.

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### SECTION 12: Ecological information

**Toxicity**

No data available

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### SECTION 13: Disposal considerations

**Disposal of the product**

Liquid waste must be disposed of in accordance with Federal, State and local regulations. Incineration is the preferred method.

**Disposal of contaminated packaging**

Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed.

**Waste treatment**

This product, as supplied, is regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. If discarded in its purchased form, this product is a RCRA hazardous waste. It is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or residue of the product remains classified a hazardous waste as per 40 CFR 261, Subpart C. State or local regulations may also apply if they differ from the federal regulation.

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### Sewage disposal

Chemical waste, even small quantities should never be poured down drains, sewers or waterways.

### Other disposal recommendations

RCRA HAZARD CLASS: D001, Ignitable Hazardous Waste

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## SECTION 14: Transport information

UN Number	None
UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
Environmental hazards	None
Special precautions for user	None
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

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## SECTION 15: Regulatory information

### Safety, health and environmental regulations specific for the product in question

#### Toxic Substances Control Act (TSCA) Inventory

This material or its components are listed on the TSCA Chemical Substance Inventory and is in compliance with all applicable rules and orders. One or more of the components may be exempt from listing on the TSCA Inventory.

#### SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard, Fire Hazard

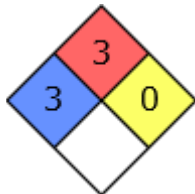
#### Chemical Safety Assessment

No data available.

#### HMIS Rating

Liquid TPO®BIO Flashing	
HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

#### NFPA Rating



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## SECTION 16: Other information

### Further information/disclaimer

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee,



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#### **Preparation information**

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