### **SAFETY DATA SHEET**



#### 1. Identification

Covestro LLC 1 Covestro Circle Pittsburgh, PA 15205

**USA** 

TRANSPORTATION EMERGENCY

CALL CHEMTREC: (800) 424-9300 INTERNATIONAL: (703) 527-3887

#### NON-TRANSPORTATION

Emergency Phone: Call Chemtrec Information Phone: (844) 646-0545

**Product Name:** Cablelite 751-005 Slate

Material Number: 50025096

**Chemical Family:** UV-Curable Mixture

**Use:** Raw material for coatings, inks, adhesives, sealants, or elastomers in

industrial applications

**Restrictions on use:** Do-It-Yourself Applications

#### 2. Hazards Identification

#### **GHS Classification**

Skin irritation:Category 2Eye irritation:Category 2ASkin sensitisation:Category 1Carcinogenicity:Category 2Reproductive toxicity:Category 1B

#### **GHS Label Elements**

Hazard pictograms:





Signal word: Danger

Hazard statements: Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing cancer.

May damage fertility or the unborn child.

Precautionary statements: **Prevention:** 

Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Avoid breathing dust, mist, gas, vapors or spray.

Wash skin and face thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear permeation resistant protective gloves and clothing. Wear eye and face protection.

#### **Response:**

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical attention.

If skin irritation or rash occurs: Get medical attention.

If eye irritation persists: Get medical attention.

Take off contaminated clothing and wash before reuse.

#### **Storage:**

Store locked up.

#### Disposal:

Dispose of contents and container in accordance with existing federal, state, and local environmental control laws.

#### 3. Composition/Information on Ingredients

#### **Hazardous Components**

Concentration	Components	CAS-No.
15 - 40%	Epoxy Acrylate	55818-57-0
10 - 30%	1,1,1-trimethylol propane triacrylate	15625-89-5
7 - 13%	Pentaerythritol Tetracrylate	4986-89-4
3 - 7%	Pentaerythritol Triacrylate	3524-68-3
3 - 7%	1,6-Hexanedioldiacrylate	13048-33-4
3 - 7%	Acrylated Resin	CAS# is a trade
		secret
3 - 7%	Tripropylene Glycol Diacrylate	42978-66-5
1 - 5%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	2-Benzoyl-2-hydroxypropane	7473-98-5
1 - 5%	2-methyl-1-(4-methylthiophenyl)-2-	71868-10-5
	morpholinopropan-1-one	
1 - 5%	Bis(2,4,6-Trimethylbenzoyl)phenylphosphine oxide	162881-26-7
0.1 - 1%	Carbon Black	1333-86-4

The specific chemical identity and/or exact percentage of component(s) have been withheld as a trade secret.

#### 4. First Aid Measures

#### **Most Important Symptom(s)/Effect(s)**

**Acute:** May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash., Causes skin irritation with symptoms of reddening, itching, and swelling., Causes serious eye irritation with symptoms of reddening, tearing, swelling, and burning.

#### **Eye Contact**

Material Name: Cablelite 751-005 Slate	Material Number: 50025096

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

#### **Skin Contact**

In case of skin contact, wash affected areas with soap and water. Wash off immediately with plenty of water for at least 15 minutes. Immediately remove contaminated clothing and shoes. Call a physician if irritation develops or persists. Wash clothing and shoes before reuse.

#### Inhalation

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

#### **Ingestion**

If ingested, do not induce vomiting unless directed to do so by medical personnel. Call a physician immediately.

#### 5. Firefighting Measures

**Suitable Extinguishing Media:** All extinguishing media are suitable.

Unsuitable Extinguishing Media No Data Available

#### Fire Fighting Procedure

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

#### **Hazardous Decomposition Products**

By Fire and Thermal Decomposition: Carbon dioxide (CO2), carbon monoxide (CO), dense black smoke., Acrylate monomers, Aldehydes, Organic acids

#### **Unusual Fire/Explosion Hazards**

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

#### 6. Accidental Release Measures

#### Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Dike or dam spilled material and control further spillage, if possible. Prevent from entering open drains and waterways. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

#### 7. Handling and Storage

#### Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use.

**Storage Temperature** 

**Minimum:** 15 °C (59 °F) **Maximum:** 30 °C (86 °F)

#### **Storage Conditions**

Inhibitor only effective in the presence of oxygen. Exposure to light may cause product polymerization. Extreme heat will result in product polymerization. Protect against heat and direct sunlight.

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200.

#### **Substances to Avoid**

Exothermic reaction with:, Free radical initiators, Peroxides, strong alkalis, Strong acids, Reactive metals

#### 8. Exposure Controls/Personal Protection

The recommendations in this section should not be a substitute for a personal protective equipment (PPE) assessment performed by the employer as required by 29 CFR 1910 Subpart I.

#### **Exposure Limits**

#### **Carbon Black** (1333-86-4)

- US. ACGIH Threshold Limit Values, as amended Time weighted average 3 mg/m3 (Inhalable fraction.)
- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended Permissible exposure limit 3.5 mg/m3
- US. ACGIH Threshold Limit Values, as amended Hazard Designation: Group A3 Confirmed animal carcinogen with unknown relevance to humans.

#### Titanium dioxide (Rutile) (13463-67-7)

- US. ACGIH Threshold Limit Values, as amended Time weighted average 10 mg/m3
- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended Permissible exposure limit 15 mg/m3 (Total dust.)
- US. ACGIH Threshold Limit Values, as amended Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Any component which is listed in section 3 and is not listed in this section does not have a known ACGIH TLV, OSHA PEL or supplier recommended occupational exposure limit.

#### **Industrial Hygiene/Ventilation Measures**

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

#### **Respiratory Protection**

Respiratory protection is recommended in insufficiently ventilated working areas and during heating or spraying. For components with occupational exposure limits, when workers are facing concentrations above those limits, they must use appropriate certified respirators.

#### **Hand Protection**

Ensure gloves remain in good condition during use and replace if any deterioration is observed. Permeation resistant gloves., Nitrile rubber gloves., Avoid natural rubber gloves., Do not wear PVC gloves, as PVC absorbs acrylates.

#### **Eye Protection**

Chemical safety goggles or safety glasses with side-shields.

#### **Skin Protection**

Permeation resistant clothing, Gloves, long sleeved shirts and pants.

#### **Additional Protective Measures**

Ultraviolet (UV) light source is used for curing this product. UV light can be hazardous to unprotected skin and eyes. Protective eyewear should always be worn when working in UV curing areas. Skin protection such as long sleeves, long pants, and gloves should be worn when UV lights are being used. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

#### 9. Physical and Chemical Properties

State of Matter: liquid

**Appearance:** viscous liquid

Color: Gray

Odor: characteristic
Odor Threshold: No Data Available
pH: No Data Available

Melting Point: Boiling Point:

Flash Point:  $> 100 \, ^{\circ}\text{C} \, (> 212 \, ^{\circ}\text{F}) \, (\text{closed cup})$ 

Evaporation Rate:No Data AvailableLower explosion limit:No Data AvailableUpper Explosion Limit:No Data AvailableVapor Pressure:No Data AvailableVapor Density:No Data Available

**Density:** 1.12 g/cm<sup>3</sup> @ 20 °C (68 °F)

Relative Vapor Density:No Data AvailableSpecific Gravity:No Data AvailableSolubility in Water:No Data AvailablePartition Coefficient: n-No Data Available

octanol/water:

Auto-ignition Temperature: No Data Available
Decomposition Temperature: No Data Available
Unblocking Temperature: No Data Available

**Dynamic Viscosity:** 4,100 - 4,400 mPa.s @ 20 °C (68 °F) **Kinematic Viscosity:** > 20.5 mm2/s @ 40 °C (104 °F) > 3660 mm2/s @ 20 °C (68 °F)

**Bulk Density:**No Data Available **Molecular Weight:**No Data Available

#### 10. Stability and Reactivity

#### **Hazardous Reactions**

No hazardous reactions when stored and handled correctly.

#### Stability

#### Stable

#### **Materials to Avoid**

Exothermic reaction with:, Free radical initiators, Peroxides, strong alkalis, Strong acids, Reactive metals

#### **Conditions to Avoid**

Heat Exposure to sunlight. Protect from freezing. Product contains an inhibitor system. Must be inhibited to prevent hazardous polymerization. Inhibitor only effective in the presence of oxygen.

#### **Hazardous Decomposition Products**

By Fire and Thermal Decomposition: Carbon dioxide (CO2), carbon monoxide (CO), dense black smoke., Acrylate monomers, Aldehydes, Organic acids

#### 11. Toxicological Information

**Likely Routes of Exposure:** Skin Contact

Eye Contact Ingestion Inhalation

#### **Health Effects and Symptoms**

**Acute:** May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash., Causes skin irritation with symptoms of reddening, itching, and swelling., Causes serious eye irritation with symptoms of reddening, tearing, swelling, and burning.

Chronic: Suspected of causing cancer., May damage fertility or the unborn child.

#### **Toxicity Data for: Cablelite 751-005 Slate**

Data on the product is not available.

#### **Acute Oral Toxicity**

Acute toxicity estimate: > 5,000 mg/kg (Calculation method)

#### **Acute Inhalation Toxicity**

no data available

#### **Acute Dermal Toxicity**

Acute toxicity estimate: 4,475 mg/kg (Calculation method)

#### **Toxicity Data for: Epoxy Acrylate**

#### Acute Oral Toxicity

LD50: > 2,000 mg/kg (rat, male/female) (OECD Test Guideline 401)

#### **Acute Inhalation Toxicity**

LC50: > 4.9 mg/l, 4 h, dust/mist (rat, male/female) (OECD Test Guideline 403)

#### **Acute Dermal Toxicity**

LD50: > 2,000 mg/kg (rat, male/female)

#### Skin Irritation

rabbit, OECD Test Guideline 404, non-irritant

#### **Eye Irritation**

rabbit, OECD Test Guideline 405, slight irritant

#### Sensitization

Skin sensitization (local lymph node assay (LLNA)):: positive (Mouse, OECD Test Guideline 429)

Respiratory sensitization:

No data available.

#### **Repeated Dose Toxicity**

Oral: LOAEL: 100 mg/kg, (rat, male/female)

#### Mutagenicity

Genetic Toxicity in Vitro:

Ames test: negative (Metabolic Activation: with/without)

In vitro mammalian cell gene mutation test: negative (Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

In vivo micronucleus test: negative (Mouse, male, Oral)

negative

#### Carcinogenicity

No data available.

#### **Toxicity to Reproduction/Fertility**

Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test, Oral, (rat, male/female)

#### **Developmental Toxicity/Teratogenicity**

rat, female, Oral, NOAEL (teratogenicity): 1,000 mg/kg, NOAEL (maternal): > 1,000 mg/kg,

#### Toxicity Data for: 1,1,1-trimethylol propane triacrylate

#### **Acute Oral Toxicity**

LD50: > 5,000 mg/kg (rat)

#### **Acute Dermal Toxicity**

LD50: 5,170 mg/kg (rabbit) assuming density = 1.1 g/cm3

#### **Skin Irritation**

rabbit, OECD Test Guideline 404, irritating

#### Eye Irritation

rabbit, Draize, irritating

#### Sensitization

Skin sensitisation:: positive (Guinea pig)

Skin sensitisation:: positive (Guinea pig)

#### **Repeated Dose Toxicity**

16 days, dermal: NOAEL: > 200 mg/kg, (rat, male/female, 5 days/week)

#### Mutagenicity

Genetic Toxicity in Vitro:

Mammalian cell - gene mutation assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic

Activation: with/without)

Chromosome aberration test: positive (other mammalian peripheral blood lymphocytes, Metabolic

Activation: with/without)

Ames test: ambiguous (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Micronucleus Assay: negative (Mouse, male/female)

negative

Micronucleus Assay: negative (Mouse, male/female)

negative

#### **Developmental Toxicity/Teratogenicity**

rat, female, Oral, 10 days, daily, NOAEL (teratogenicity): > 500 mg/kg, NOAEL (maternal): 500 mg/kg,

#### **Toxicity Data for: Pentaerythritol Tetracrylate**

#### **Toxicity Note**

No data available for this product.

#### **Skin Irritation**

irritating

#### **Eye Irritation**

irritating

#### Sensitization

Skin sensitisation::

Classification according to Directive 2006/121/EC Annex VI

#### **Toxicity Data for: Pentaerythritol Triacrylate**

#### **Acute Oral Toxicity**

LD50: 1,830 mg/kg (rat)

#### **Acute Dermal Toxicity**

LD50: 4,668 mg/kg (rabbit)

#### **Skin Irritation**

rabbit, Moderately irritating

Draize, Moderately irritating

#### **Eye Irritation**

rabbit, Draize, Severely irritating

#### Sensitization

dermal: (Maximisation Test)

Skin sensitisation:: May cause sensitization by skin contact.

#### Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium)

Genetic Toxicity in Vivo:

Micronucleus Assay: Ambiguous. (Mouse, male, dermal)

Ambiguous.

#### Carcinogenicity

Mouse, dermal, 80 weekspositive

#### **Toxicity to Reproduction/Fertility**

Reproductive effects have been observed in animal studies.

#### **Developmental Toxicity/Teratogenicity**

Rat, female, oral, gestation, daily, NOAEL (teratogenicity): 500 mg/kg, NOAEL (maternal): < 500 mg/kg,

No Teratogenic effects observed at doses tested. Fetotoxicity seen only with maternal toxicity.

#### **Toxicity Data for: 1,6-Hexanedioldiacrylate**

#### **Acute Oral Toxicity**

LD50: > 5,000 mg/kg (rat, male/female) (OECD Test Guideline 401)

#### **Acute Dermal Toxicity**

LD50: 3,650 mg/kg (rabbit) (OECD Test Guideline 402)

#### **Skin Irritation**

rabbit, OECD Test Guideline 404, Exposure Time: 4 h, irritating

#### Eye Irritation

rabbit, OECD Test Guideline 405, Irritation to eyes, reversing within 7 days

#### Sensitization

Maximisation Test: positive (Guinea pig, OECD Test Guideline 406)

#### Mutagenicity

Genetic Toxicity in Vitro:

Bacterial - gene mutation assay: negative

Mammalian cell - gene mutation assay: negative (Mouse lymphoma cells (L5178Y/TK))

Genetic Toxicity in Vivo:

In vivo micronucleus test: negative (Mouse, )

negative

#### **Toxicity to Reproduction/Fertility**

Oral, (rat) NOAEL (parental): 250 mg/kg,

#### **Developmental Toxicity/Teratogenicity**

rat, female, Oral, GD 6-15, daily, NOAEL (teratogenicity): 750 mg/kg, Did not show teratogenic effects in animal experiments.

#### **Toxicity Data for: Acrylated Resin**

#### **Eye Irritation**

Irritating to eyes.

#### Toxicity Data for: Tripropylene Glycol Diacrylate

#### **Acute Oral Toxicity**

LD50: 6,200 mg/kg (rat)

#### **Acute Dermal Toxicity**

LD50: > 2,000 mg/kg (rabbit, male/female) (OECD Test Guideline 402)

#### **Skin Irritation**

rabbit, OECD Test Guideline 404, Non-irritating

#### **Eye Irritation**

rabbit, OECD Test Guideline 405, irritating

#### Sensitization

dermal: ambiguous (Guinea pig)

Skin sensitization (local lymph node assay (LLNA)):: positive (Mouse, OECD Test Guideline 429)

#### **Repeated Dose Toxicity**

90 d, dermal: NOAEL: 67 mg/kg, (rat)

10 d, dermal: LOAEL: 500 mg/kg, (rat, male/female, daily)

#### Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Mammalian cell - gene mutation assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic

Activation: with/without)

Positive and negative results were reported.

Genetic Toxicity in Vivo:

Micronucleus Assay: negative (Mouse, male, intraperitoneal)

negative

#### Carcinogenicity

Mouse, dermal, 80 wNo carcinogenic effects observed at the doses tested.

#### **Developmental Toxicity/Teratogenicity**

rat, female, oral, NOAEL (teratogenicity): Not Established (<250 mg/kg), NOAEL (maternal): Not Eastablished (<250 mg/kg) rat, female, oral, GD 6-15, daily, NOAEL (teratogenicity): 250 mg/kg, NOAEL (maternal): 250 mg/kg,

#### **Other Relevant Toxicity Information**

May cause irritation of respiratory tract.

#### **Toxicity Data for: Titanium dioxide (Rutile)**

#### **Acute Oral Toxicity**

LD50: > 5,000 mg/kg (rat, female) (OECD Test Guideline 425)

#### **Acute Inhalation Toxicity**

LC50: > 6.82 mg/l, 4 h, dust/mist (rat, male)

#### **Acute Dermal Toxicity**

LD50: > 10,000 mg/kg (rabbit)

#### **Skin Irritation**

rabbit, OECD Test Guideline 404, Exposure Time: 24 h, Non-irritating

rabbit, Exposure Time: 24 h, Non-irritating

#### **Eye Irritation**

rabbit, OECD Test Guideline 405, Non-irritating

rabbit, Draize, Non-irritating

#### **Sensitization**

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Skin sensitization (local lymph node assay (LLNA)):: negative (Mouse, OECD Test Guideline 429)

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

#### **Repeated Dose Toxicity**

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

29 days, Oral: NOAEL: 24,000 mg/kg, (rat, male, daily)

up to 2 years, inhalation: NOAEL: 0.01 mg/l, (Rat, male/female, 6 hrs/day 5 days/week)

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

#### Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Mammalian cell - gene mutation assay: negative (Mouse lymphoma cells (L5178Y/TK), Metabolic

Activation: with/without)

Chromosome aberration test: negative (Chinese hamster ovary (CHO) cells, Metabolic Activation:

with/without)

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

negative

Cytogenetic assay: negative (Mouse, male, intraperitoneal)

negative

Drosophila SLRL test: negative (Drosophila melanogaster)

negative

#### Carcinogenicity

Rat, Male/Female, inhalationAccording to IARC, several rat inhalation and intratracheal installation studies using titanium dioxide have shown increases in benign and malignant lung tumors. Reviewed human exposure data did not suggest an association between occupational exposure to titanium dioxide and risk for cancer. Additionally, the IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."Rat, Male/Female, inhalationAccording to IARC, several rat inhalation and intratracheal installation studies using titanium dioxide have shown increases in benign and malignant lung tumors. Reviewed human exposure data did not suggest an association between occupational exposure to titanium dioxide and risk for cancer. Additionally, the IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."

#### Other Relevant Toxicity Information

May cause irritation of respiratory tract.

#### **Toxicity Data for: 2-Benzoyl-2-hydroxypropane**

#### **Acute Oral Toxicity**

LD50: 1,694 mg/kg (rat, male/female) (OECD Test Guideline 423)

#### **Acute Dermal Toxicity**

LD50: 6,929 mg/kg (rat, male/female) (OECD Test Guideline 402)

#### **Skin Irritation**

Non-irritating

#### **Eye Irritation**

rabbit, Non-irritating

#### Sensitization

dermal: non-sensitizer (Guinea pig, Magnusson/Kligmann (Maximization Test))

Skin sensitisation:: negative (OECD Test Guideline 406)

#### **Repeated Dose Toxicity**

28 days, Oral: NOAEL: 100 mg/kg, (rat)

Changes in liver weight.

#### Mutagenicity

Genetic Toxicity in Vitro: Ames: negative (E. coli)

#### Toxicity Data for: 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

#### **Acute Oral Toxicity**

LD50: 1,984 mg/kg (rat, male/female) (OECD Test Guideline 401)

#### **Acute Dermal Toxicity**

LD50: > 2,000 mg/kg (rabbit, male/female) (OECD Test Guideline 402)

#### **Skin Irritation**

rabbit, OECD Test Guideline 404, non-irritant

#### **Eye Irritation**

rabbit, OECD Test Guideline 405, slight irritant

#### Sensitization

Skin sensitisation:: negative (Guinea pig, OECD Test Guideline 406)

#### Respiratory sensitization:

no data available

#### **Repeated Dose Toxicity**

Oral: NOAEL: 100 mg/kg, (rat, male/female, daily)

#### Mutagenicity

Genetic Toxicity in Vitro:

Ames test: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Chromosome aberration test in vitro: negative (Chinese hamster V79 cell line, Metabolic Activation: with/without)

In vitro mammalian cell gene mutation test: negative (mouse lymphoma cells, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

In vivo micronucleus test: negative (hamster, male/female, Oral)

negative

#### Toxicity to Reproduction/Fertility

Oral, daily, (rat, male/female)

#### **Developmental Toxicity/Teratogenicity**

rat, male and female, Oral, daily, NOAEL (maternal): 40 mg/kg,

#### Toxicity Data for: Bis(2,4,6-Trimethylbenzoyl)phenylphosphine oxide

#### **Acute Oral Toxicity**

LD50: > 2,000 mg/kg (rat)

#### **Acute Dermal Toxicity**

LD50: > 2,000 mg/kg (rat)

#### **Skin Irritation**

Non-irritating

#### **Eye Irritation**

rabbit, non-irritant

#### Sensitization

dermal: sensitizer (Guinea pig)

#### **Repeated Dose Toxicity**

28 days, Oral: NOAEL: 1,000 mg/kg, (rat)

There were no adverse effects seen at highest dose tested.

#### Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies.

#### **Toxicity Data for: Carbon Black**

#### **Acute Oral Toxicity**

LD50: > 8,000 mg/kg (rat, male/female) (OECD Test Guideline 401)

#### **Acute Dermal Toxicity**

LD50: > 3,000 mg/kg (rabbit)

#### Skin Irritation

rabbit, Non-irritating

#### **Eye Irritation**

Human, non-irritant

#### Sensitization

Buehler Test: negative (Guinea pig, OECD Test Guideline 406)

Skin sensitization (local lymph node assay (LLNA)):: negative (Mouse, OECD Test Guideline 429)

#### **Repeated Dose Toxicity**

13 weeks, Inhalative: NOAEL: 0.0011 mg/kg, (rat, )

#### Mutagenicity

Genetic Toxicity in Vitro:

Salmonella/microsome test (Ames test): negative

Mammalian cell - gene mutation assay: positive (other mammalian cell line, Metabolic Activation: without)

Micronucleus test: positive (other human cell line, Metabolic Activation: without)

Genetic Toxicity in Vivo:

Other assay: negative (Mouse, male, intraperitoneal)

negative

#### Carcinogenicity

Several inhalation studies involving carbon black in female rats have shown increases in benign and malignant lung tumors. Although a large body of data on possible mechanisms of carcinogenicity in rats was considered by the IARC Working Group, it was not possible to state with confidence that the mechanisms of carcinogenicity in rats correlate to exposure in humans. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions.

#### **Developmental Toxicity/Teratogenicity**

rat, female, Inhalative, 10 days, daily,

#### **Other Relevant Toxicity Information**

May cause irritation of respiratory tract.

#### **Carcinogenicity:**

1,1,1-trimethylol propane IARC - Overall evaluation: 2B Possibly carcinogenic to humans.

triacrylate

Titanium dioxide (Rutile) IARC - Overall evaluation: 2B Possibly carcinogenic to humans.

Carbon Black IARC - Overall evaluation: 2B Possibly carcinogenic to humans.

#### 12. Ecological Information

#### **Ecological Data for: Cablelite 751-005 Slate**

Data on the product is not available.

#### **Ecological Data for Epoxy Acrylate**

#### Biodegradation

42 %, Exposure time: 28 d, i.e. not readily degradable

#### **Acute and Prolonged Toxicity to Fish**

LC50: > 0.082 mg/l (Cyprinus carpio (Carp), 96 h)

No toxic effects in the water-soluble range.

#### **Acute Toxicity to Aquatic Invertebrates**

EL50: > 100 mg/l (Daphnia magna (Water flea), 48 h)

#### **Toxicity to Aquatic Plants**

EL50: 105 mg/l, (Pseudokirchneriella subcapitata (green algae), 72 h)

#### **Toxicity to Microorganisms**

EC50: > 1,000 mg/l, (activated sludge, 3 h)

#### Ecological Data for 1,1,1-trimethylol propane triacrylate

#### Biodegradation

90 - 100 %, i.e. readily biodegradable

#### **Toxicity to Aquatic Plants**

EC50: 18.8 mg/l, (Desmodesmus subspicatus (Green algae), 72 h)

#### **Ecological Data for Pentaerythritol Triacrylate**

#### Biodegradation

6 - 14 %, Exposure time: 28 d, i.e. not readily degradable

#### **Acute and Prolonged Toxicity to Fish**

LC50: 3.2 mg/l (Cyprinus carpio (Carp), 96 h)

NOEC: 2.2 mg/l (Cyprinus carpio (Carp), 96 h)

#### **Acute Toxicity to Aquatic Invertebrates**

EC50: 13 mg/l (Daphnia magna (Water flea), 48 h)

NOEC: 10.3 mg/l (Daphnia magna (Water flea), 48 h)

#### **Toxicity to Aquatic Plants**

ErC50: 12 mg/l, End Point: Growth inhibition (Pseudokirchneriella subcapitata (green algae), 96 h)

#### Ecological Data for 1,6-Hexanedioldiacrylate

#### Biodegradation

80 - 90 %, i.e. readily biodegradable

#### Acute and Prolonged Toxicity to Fish

LC50: > 4.6 - < 10 mg/l (Golden orfe (Leuciscus idus), 96 h)

#### **Acute Toxicity to Aquatic Invertebrates**

EC50: 2.59 mg/l (Water flea (Daphnia magna), 48 h)

#### **Toxicity to Aquatic Plants**

1.47 mg/l, (Desmodesmus subspicatus (Green algae), 72 h)

#### **Toxicity to Microorganisms**

EC10: 405 mg/l, (Pseudomonas putida, 0.5 h)

#### **Ecological Data for Tripropylene Glycol Diacrylate**

#### **Biodegradation**

> 90 %, i.e. readily biodegradable

40 - 50 %, i.e. not readily degradable

#### Bioaccumulation

Does not bioaccumulate.

#### **Acute and Prolonged Toxicity to Fish**

LC50: > 4.5 - < 10 mg/l (Golden orfe (Leuciscus idus), 96 h)

#### **Acute Toxicity to Aquatic Invertebrates**

EC50: 88.7 mg/l (Water flea (Daphnia magna), 48 h)

#### **Toxicity to Aquatic Plants**

EC50: > 28 mg/l, (Green algae (Scenedesmus subspicatus), 72 h)

#### **Toxicity to Microorganisms**

EC50: > 10,000 mg/l, (Pseudomonas putida, 0.5 h)

#### **Ecological Data for Titanium dioxide (Rutile)**

#### Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 h)

#### **Acute Toxicity to Aquatic Invertebrates**

EC0: > 3 mg/l (Water flea (Daphnia magna))

#### **Toxicity to Microorganisms**

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 h)

#### Ecological Data for 2-Benzoyl-2-hydroxypropane

#### **Biodegradation**

59 %, Exposure time: 28 d

#### Acute and Prolonged Toxicity to Fish

LC50: 160 ppm (Golden orfe (Leuciscus idus), 96 h)

#### **Toxicity to Aquatic Plants**

EC50: 0.64 PPM, (other: algae, 72 h)

#### **Toxicity to Microorganisms**

IC50: 3 ppm, (Wastewater bacteria)

### Ecological Data for 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

Biodegradation

aerobic, <= 1 %, Exposure time: 28 d, i.e. not readily degradable

#### **Bioaccumulation**

Oryzias latipes (Orange-red killifish), Exposure time: 56 d, < 10 BCF

#### Acute and Prolonged Toxicity to Fish

LC50: 9 mg/l (Danio rerio (zebra fish), 96 h)

#### **Acute Toxicity to Aquatic Invertebrates**

EC50: 15.3 mg/l (Daphnia magna (Water flea), 24 h)

#### **Toxicity to Aquatic Plants**

EC50: 1.6 mg/l, (Desmodesmus subspicatus (Green algae), 72 h)

NOEC: 0.86 mg/l, (Desmodesmus subspicatus (Green algae), 72 h)

#### **Toxicity to Microorganisms**

EC50: > 100 mg/l, (activated sludge, 3 h)

#### Ecological Data for Bis(2,4,6-Trimethylbenzoyl)phenylphosphine oxide

#### Biodegradation

Exposure time: 28 d, Not readily biodegradable.

#### Bioaccumulation

Cyprinus carpio (Carp), < 5 BCF

#### Acute and Prolonged Toxicity to Fish

LC50: > 90 ppm (Zebra fish (Brachydanio rerio), 96 h)

No harmful effect at saturation concentration.

#### **Acute Toxicity to Aquatic Invertebrates**

EC50: > 1.175 mg/l (Water flea (Daphnia magna), 48 h)

No effects seen at saturation concentration.

#### **Toxicity to Aquatic Plants**

EC50: 0.26 mg/l, (Green algae (Scenedesmus subspicatus), 72 h)

No effects seen at saturation concentration.

#### **Toxicity to Microorganisms**

EC50: > 100 mg/l, (Wastewater bacteria)

#### **Ecological Data for Carbon Black**

#### **Acute and Prolonged Toxicity to Fish**

LC0: > 1,000 mg/l (Danio rerio (zebra fish), 96 h)

#### **Acute Toxicity to Aquatic Invertebrates**

EC50: > 5,600 mg/l (Water flea (Daphnia magna), 24 h)

#### **Toxicity to Microorganisms**

EC0: 100 - 800 mg/l, (Activated sludge microorganisms, 3 h)

#### 13. Disposal Considerations

#### Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

#### **Empty Container Precautions**

Do not reuse empty container. Empty containers retain product residue (dust, liquid, vapor and/or gases) and can be dangerous.

#### 14. Transportation Information

#### **Land transport (DOT)**

Non-Regulated

#### Sea transport (IMDG)

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains BADGE epoxy acrylate, Trimethylolpropane

triacrylate)

Hazard Class or Division: 9

UN number: UN3082 Packaging Group: III

Hazard Label(s): MISCELLANEOUS

Marine pollutant: Marine pollutant

Air transport (ICAO/IATA)

**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (contains

BADGE epoxy acrylate, Trimethylolpropane triacrylate)

**Hazard Class or Division:** 9

UN number: UN3082 Packaging Group: III

Hazard Label(s): MISCELLANEOUS
Marine pollutant: Marine pollutant

#### 15. Regulatory Information

#### **United States Federal Regulations**

**US. Toxic Substances Control Act:** Listed on the Active Portion of the TSCA Inventory.

No substances are subject to TSCA 12(b) export notification requirements.

#### US. EPA CERCLA Hazardous Substances (40 CFR 302.4) Components:

None

#### **SARA Section 311/312 Hazard Categories:**

Refer to hazard classification information in Section 2.

# US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A) Components: None

# US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required Components: None

## US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous waste.

#### **State Right-To-Know Information**

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

#### Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

<b>Concentration</b>	<u>Components</u>	CAS-No.
15 - 40%	Epoxy Acrylate	55818-57-0
>=1%	Aliphatic urethane acrylate	CAS# is a trade secret
10 - 30%	1,1,1-trimethylol propane triacrylate	15625-89-5
7 - 13%	Pentaerythritol Tetracrylate	4986-89-4
3 - 7%	Pentaerythritol Triacrylate	3524-68-3
3 - 7%	1,6-Hexanedioldiacrylate	13048-33-4
3 - 7%	Acrylated Resin	CAS# is a trade secret
3 - 7%	Tripropylene Glycol Diacrylate	42978-66-5
1 - 5%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	2-Benzoyl-2-hydroxypropane	7473-98-5

1 - 5% 2-methyl-1-(4-methylthiophenyl)-2- 71868-10-5

morpholinopropan-1-one

1 - 5% Bis(2,4,6- 162881-26-7

Trimethylbenzoyl)phenylphosphine

oxide

## New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

 Concentration
 Components
 CAS-No.

 0.1 - 1%
 Carbon Black
 1333-86-4

#### California Proposition 65 List:

<b>Concentration</b>	<u>Components</u>	CAS-No.
10 - 30%	1,1,1-trimethylol propane triacrylate	15625-89-5
1 - 5%	Titanium dioxide (Rutile)	13463-67-7
0.1 - 1%	Carbon Black	1333-86-4

#### CFATS (Chemical Facility Anti-Terrorism Standards) Chemicals

To the best of our knowledge, this product does not contain Appendix A Chemicals of Interest (COI), at or above the Screening Threshold Quantity (STQ), as defined by the Department of Homeland Security Chemical Facility Anti-terrorism Standard (CFATS, 6 CFR Part 27).

Based on information provided by our suppliers, this product is considered "DRC Conflict Free" as defined by the SEC Conflict Minerals Final Rule (Release No. 34-67716; File No. S7-40-10; Date: 2012-08-22).

#### 16. Other Information

The method of hazard communication for Covestro LLC is comprised of product labels and safety data sheets. Safety data sheets for all of our products and general product declarations are available for download at www.productsafetyfirst.covestro.com.

Contact: Product Safety Department

Telephone: (412) 413-2835 Version Date: 12/20/2022

SDS Version: 1.4

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