

SAFETY DATA SHEET (SDS)

**Manufacturer:**

Covestro

Product Name:

Covestro Desolite® 3471-2-136 Secondary Optical Fiber Coating, UV Cure (10 kg)

Manufacturer Part Number:

COV-3471-2-136-10KG

▶ [Click here for more details on the Covestro Desolite® 3471-2-136 Secondary Optical Fiber Coating, UV Cure \(10 kg\)](#)

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: DeSolite 3471-2-136
Material Number: 50025034
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 2
Eye irritation: Category 2A
Skin sensitisation: Category 1
Reproductive toxicity (Oral): Category 1B
Reproductive toxicity: Category 2

GHS Label Elements

Hazard pictograms:



Signal word: Danger

Hazard statements:
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May damage fertility or the unborn child if swallowed.
Suspected of damaging 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.

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 1 of 18

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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.

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity:
61 %

3. Composition/Information on Ingredients

Hazardous Components

Concentration	Components	CAS-No.
15 - 40%	Epoxy Acrylate	55818-57-0
7 - 13%	Isobornyl acrylate ester	5888-33-5
7 - 13%	2-phenoxyethyl acrylate	48145-04-6
5 - 10%	1,6-Hexanedioldiacrylate	13048-33-4
1 - 5%	Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	75980-60-8
0.1 - 1%	Oligomer	54687-25-1
0.1 - 1%	2-Hydroxyethyl Acrylate	818-61-1
0.1 - 1%	2-Phenoxyethanol	122-99-6
0.1 - 1%	Polydimethylsiloxane	68037-64-9
0.1 - 1%	Oxirane, methyl-, polymer with oxirane, monoacetate, 2-propenyl ether	56090-69-8

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 serious eye irritation with symptoms of reddening, tearing, swelling, and burning., Causes skin irritation with symptoms of reddening, itching, and swelling.

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Irrigate copiously with clean, fresh water for

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 2 of 18

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at least 10 minutes, holding the eyelids apart. Get medical attention if irritation develops.

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. If a person vomits when lying on his back, place him in the recovery position. Get medical attention.

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

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 3 of 18

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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**2-Propenoic acid (79-10-7)**

US. ACGIH Threshold Limit Values, as amended
Time weighted average 2 ppm

US. ACGIH Threshold Limit Values, as amended
Skin Dermal absorption possible

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

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 4 of 18

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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:	liquid
Color:	Colorless to light yellow
Odor:	characteristic
Odor Threshold:	No Data Available
pH:	not applicable
Melting Point:	
Boiling Point:	
Flash Point:	> 100 °C (> 212 °F) (closed cup)
Evaporation Rate:	No Data Available
Lower explosion limit:	No Data Available
Upper Explosion Limit:	No Data Available
Vapor Pressure:	No Data Available
Vapor Density:	No Data Available
Density:	1 g/cm ³ @ 20 °C (68 °F)
Relative Vapor Density:	No Data Available
Specific Gravity:	No Data Available
Solubility in Water:	No Data Available
Partition Coefficient: n-octanol/water:	No Data Available
Auto-ignition Temperature:	No Data Available
Decomposition Temperature:	Stable under recommended storage conditions. The product is chemically stable.
Unblocking Temperature:	No Data Available
Dynamic Viscosity:	4,500 - 5,500 mPa.s @ 20 °C (68 °F)
Kinematic Viscosity:	> 20.5 mm ² /s @ 40 °C (104 °F) > 4500 mm ² /s @ 20 °C (68 °F)
Bulk Density:	No Data Available
Molecular Weight:	No Data Available
Self Ignition:	not applicable

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

Exposure to sunlight. Product contains an inhibitor system. Must be inhibited to prevent hazardous polymerization. Inhibitor only effective in the presence of oxygen. Heat, flames and sparks.

Hazardous Decomposition Products

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 5 of 18

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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 serious eye irritation with symptoms of reddening, tearing, swelling, and burning., Causes skin irritation with symptoms of reddening, itching, and swelling.

Chronic: May damage fertility or the unborn child.

Toxicity Data for: DeSolite 3471-2-136

Data on the product is not available.

Please find the data available for the components.

Acute Oral Toxicity

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

Acute Dermal Toxicity

Acute toxicity estimate: 4,302 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) (OECD Test Guideline 402)

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)

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 6 of 18

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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): 1000, NOAEL (maternal): > 1000 rabbit, female, Oral, NOAEL (teratogenicity): 1000, NOAEL (maternal): 1000

Toxicity Data for: Isobornyl acrylate ester**Acute Oral Toxicity**

LD50: 4,890 mg/kg (rat)

Acute Dermal Toxicity

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

Skin Irritation

rabbit, Draize Test, Moderately irritating

Moderate skin irritation

Eye Irritation

rabbit, Draize, Mild eye irritation

Sensitization

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

Repeated Dose Toxicity

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

Mutagenicity

Genetic Toxicity in Vitro:

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

Ames test: negative (Escherichia coli, Metabolic Activation: with/without)

In vitro mammalian cell gene mutation test: negative (Chinese hamster V79 cell line, Metabolic Activation: with/without)

Chromosome aberration test in vitro: negative (Human lymphocytes, Metabolic Activation: with/without)

Carcinogenicity

Based on available data, the classification criteria are not met.

Toxicity to Reproduction/Fertility

Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test, Oral, daily, (rat, male/female) NOAEL (parental): 100 mg/kg, NOAEL (F1): 100 mg/kg,

Based on available data, the classification criteria are not met.

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 7 of 18

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Developmental Toxicity/Teratogenicity

rat, male/female, Oral, NOAEL (teratogenicity): 500 mg/kg, NOAEL (maternal): 100 mg/kg,

Based on available data, the classification criteria are not met.

Other Relevant Toxicity Information

May cause irritation of respiratory tract.

Toxicity Data for: 2-phenoxyethyl acrylate**Acute Oral Toxicity**

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

Acute Inhalation Toxicity

no data available

Acute Dermal Toxicity

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

Skin Irritation

rabbit, non-irritant

Eye Irritation

rabbit, Non-irritating

Sensitization

Skin sensitisation according to Magnusson/Kligmann (maximizing test):: positive (Guinea pig, OECD Test Guideline 406)

Repeated Dose Toxicity

Oral: NOAEL: 300 mg/kg, (rat, male/female)

Oral: NOAEL: 350 mg/kg, (rat, male/female)

Mutagenicity

Genetic Toxicity in Vitro:

Ames test: negative (Escherichia coli, Metabolic Activation: with/without)

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

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

Chromosome aberration test in vitro: negative (Human lymphocytes, Metabolic Activation: with/without)

Toxicity to Reproduction/Fertility

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

Developmental Toxicity/Teratogenicity

rat, Oral, NOAEL (teratogenicity): 600, NOAEL (maternal): 600

Toxicity Data for: 1,6-Hexanedioldiacrylate**Acute Oral Toxicity**

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

Acute Inhalation Toxicity

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 8 of 18

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LC0: 0.41 mg/l, 7 h, vapour (rat, male/female)

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, irritating

Sensitization

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

Repeated Dose Toxicity

Oral: NOAEL: 250 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)

Studies of a comparable product.

negative

Toxicity to Reproduction/Fertility

Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test, Oral, (rat, Male/Female) NOAEL (parental): 250 mg/kg,

Developmental Toxicity/Teratogenicity

rat, male and female, Oral, NOAEL (teratogenicity): 750 mg/kg, NOAEL (maternal): 250 mg/kg, Did not show teratogenic effects in animal experiments.

Toxicity Data for: Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-**Acute Oral Toxicity**

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

Acute Dermal Toxicity

LD50: > 2,000 mg/kg (rat) (OECD Test Guideline 402)

Skin Irritation

rabbit, Non-irritating

Eye Irritation

rabbit, Non-irritating

Sensitization

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

Repeated Dose Toxicity

90 Days, oral: NOAEL: 100 mg/kg, (Rat)

Mutagenicity

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 9 of 18

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Genetic Toxicity in Vitro:

gene mutation test: negative (Bacteria, Metabolic Activation: with/without)
In vitro mammalian cell gene mutation test: negative (Chinese hamster lung cells)
Chromosome aberration test in vitro: negative (Chinese hamster lung cells)

Toxicity to Reproduction/Fertility

oral, (Rat) NOAEL (parental): 200 mg/kg, NOAEL (F2): 60 mg/kg, Reproductive effects have been observed in animal studies.
Paternal Effects - Spermatogenesis (including genetic material, sperm morphology, motility, and count), testes, epididymis, sperm duct

Developmental Toxicity/Teratogenicity

Rat, NOAEL (maternal): 150 mg/kg,

Toxicity Data for: Oligomer**Acute Oral Toxicity**

LD50: > 2,000 mg/kg (rat, female) (OECD Test Guideline 423)

Acute Dermal Toxicity

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

Skin Irritation

In vitro test system, OECD Test Guideline 439, positive

Eye Irritation

rabbit, OECD Test Guideline 405, slight irritant

Sensitization

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

Repeated Dose Toxicity

Oral: NOAEL: 1,000 mg/kg, (rat, male/female, daily)

Mutagenicity

Genetic Toxicity in Vitro:
Ames test: negative (Escherichia coli, Metabolic Activation: with/without)
Chromosome aberration test in vitro: negative (Human lymphocytes, Metabolic Activation: with/without)

Toxicity Data for: 2-Hydroxyethyl Acrylate**Acute Oral Toxicity**

LD50: 540 mg/kg (rat)

Acute Inhalation Toxicity

LC50: > 1.45 mg/l, 7 h, vapour (rat, female)

Acute Dermal Toxicity

LD50: > 1,000 mg/kg (rat, male/female)

Skin Irritation

rabbit, Corrosive

Eye Irritation

rabbit, Corrosive

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 10 of 18

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Sensitization

Skin sensitization (local lymph node assay (LLNA)):: positive (Mouse)

Repeated Dose Toxicity

1,5 a, Inhalative: NOAEL: 0.0024 mg/l, (rat, male/female)

Mutagenicity

Genetic Toxicity in Vitro:

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

Micronucleus test: positive (Mouse lymphoma cells, Metabolic Activation: without)

Genetic Toxicity in Vivo:

Micronucleus test: negative (Mouse)

Toxicological studies of a comparable product.
negative

Carcinogenicity

rat, male/female, Inhalative, 1,5 a

Toxicity to Reproduction/Fertility

Two-generation study, (rat, male/female) Toxicological studies of a comparable product.

Developmental Toxicity/Teratogenicity

rat, NOAEL (maternal): 20 mg/kg,

Toxicity Data for: 2-Phenoxyethanol**Acute Oral Toxicity**

LD50: 1,850 mg/kg (rat, male/female) (OECD Test Guideline 401)

Acute Dermal Toxicity

LD50: 14,391 mg/kg (rabbit, male/female)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, irritating

Sensitization

Skin sensitisation according to Magnusson/Kligmann (maximizing test):: negative (Guinea pig)

Repeated Dose Toxicity

13 weeks, Oral: (rat, male/female)

13 weeks, dermal: NOAEL: 500 mg/kg, (rabbit, male/female, 6 hrs/day 5 days/week)

Mutagenicity

Genetic Toxicity in Vitro:

Chromosome aberration test: negative (Chinese hamster lung cells, Metabolic Activation: with/without)

Mammalian cell - gene mutation assay: negative (Chinese hamster lung cells, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Micronucleus Assay: negative (rat, male, intraperitoneal)

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 11 of 18

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Covestro

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Covestro Desolite® 3471-2-136 Secondary Optical Fiber Coating, UV Cure (10 kg)

Manufacturer Part Number:

COV-3471-2-136-10KG

▶ [Click here for more details on the Covestro Desolite® 3471-2-136 Secondary Optical Fiber Coating, UV Cure \(10 kg\)](#)

negative

Toxicity to Reproduction/Fertility

Two-generation study, (feeding study) oral, (Mouse, male/female) NOAEL (parental): 1,875 mg/kg, NOAEL (F1): 375 mg/kg, NOAEL (F2): 375 mg/kg,

Developmental Toxicity/Teratogenicity

rat, female, Oral, GD 6-19, daily, NOAEL (teratogenicity): 1,000 mg/kg, NOAEL (maternal): 300 mg/kg,

Toxicity Data for: Polydimethylsiloxane**Acute Oral Toxicity**

LD50: 28,200 mg/kg (rat)

Acute Dermal Toxicity

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

Skin Irritation

No skin irritation

Eye Irritation

slight irritant
Suppliers' information

Toxicity Data for: Oxirane, methyl-, polymer with oxirane, monoacetate, 2-propenyl ether**Acute Oral Toxicity**

no data available

Acute Inhalation Toxicity

no data available

Acute Dermal Toxicity

no data available

Skin Irritation

Skin irritation

Eye Irritation

Severely irritating

Carcinogenicity:

No carcinogenic substances as defined by IARC, NTP and/or OSHA

12. Ecological Information**Ecological Data for: DeSolite 3471-2-136**

Data on the product is not available. Please find below the ecotoxicological data available to us for the components.

Ecological Data for Epoxy Acrylate

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 12 of 18

Data is subject to change without notice.

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Biodegradation

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

Bioaccumulation

An accumulation in aquatic organisms is not to be expected.

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 Isobornyl acrylate ester**Biodegradation**

aerobic, 73.9 %, Exposure time: 60 d, i.e. not readily biodegradable (10 day time window criterion is not met)

aerobic, 57 %, Exposure time: 28 d, i.e. not readily degradable

Bioaccumulation

Danio rerio (zebra fish), Exposure time: 56 h, 37 BCF

Studies of a comparable product.

Acute and Prolonged Toxicity to Fish

LC50: 0.704 mg/l (Danio rerio (zebra fish), 96 h)

Toxicity to Aquatic Plants

EC50: 1.98 mg/l, (Pseudokirchneriella subcapitata (green algae), 72 h)

NOEC: 0.405 mg/l, (Pseudokirchneriella subcapitata (green algae), 72 h)

Ecological Data for 2-phenoxyethyl acrylate**Biodegradation**

aerobic, 22 %, Exposure time: 28 d, i.e. readily biodegradable

Bioaccumulation

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Acute and Prolonged Toxicity to Fish

LC50: 10 mg/l (Leuciscus idus (Golden orfe), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 1.21 mg/l (Daphnia magna (Water flea), 48 h)

Toxicity to Aquatic Plants

EC50: 4.4 mg/l, (Desmodesmus subspicatus (Green algae), 72 h)

EC10: 0.71 mg/l, (Desmodesmus subspicatus (Green algae), 72 h)

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 13 of 18

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Toxicity to Microorganisms

EC50: 177 mg/l, (activated sludge)

Ecological Data for 1,6-Hexanedioldiacrylate**Biodegradation**

60 - 70 %, Exposure time: 28 d, i.e. inherently degradable

60 - 70 %, Exposure time: 28 d, i.e. readily biodegradable

Acute and Prolonged Toxicity to Fish

LC50: 0.38 mg/l (Oryzias latipes (Japanese medaka), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 2.7 mg/l (Daphnia magna (Water flea), 48 h)

Toxicity to Aquatic Plants

EC50: 2.33 mg/l, (Selenastrum capricornutum (green algae), 72 h)

NOEC: 0.9 mg/l, (Selenastrum capricornutum (green algae), 72 h)

Toxicity to Microorganisms

EC50: 270 mg/l, (activated sludge, 30 min)

Ecological Data for Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-**Acute and Prolonged Toxicity to Fish**

LC50: 10 - 100 mg/l (Golden orfe (Leuciscus idus), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 10 - 100 mg/l (Water flea (Daphnia magna), 48 h)

Toxicity to Aquatic Plants

EC50: 10 - 100 mg/l, (72 h)

Toxicity to Microorganisms

EC50: > 500 mg/l, (Wastewater bacteria, 17 h)

Ecological Data for Oligomer**Biodegradation**

aerobic, 0 %, Exposure time: 28 d, i.e. not readily degradable

Acute and Prolonged Toxicity to Fish

LC50: 20 mg/l (Fish, 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 44 mg/l (Daphnia magna (Water flea), 48 h)

Toxicity to Aquatic Plants

NOEC: 2 mg/l, (Pseudokirchneriella subcapitata (green algae), 72 h)

EC50: 37 mg/l, (Pseudokirchneriella subcapitata (green algae), 72 h)

Ecological Data for 2-Hydroxyethyl Acrylate**Biodegradation**

79 %, Exposure time: 28 d, i.e. readily biodegradable

Acute and Prolonged Toxicity to Fish

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 14 of 18

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LC50: 4.8 mg/l (Pimephales promelas (fathead minnow), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 9.3 mg/l (Daphnia magna (Water flea), 48 h)

Toxicity to Aquatic Plants

EC50: 6 mg/l, (Pseudokirchneriella subcapitata (green algae), 72 h)

NOEC: 1 mg/l, (Pseudokirchneriella subcapitata (green algae), 72 h)

Toxicity to Microorganisms

EC10: > 100 mg/l, (Sewage sludge, 72 h)

Additional Ecotoxicological Remarks

Very toxic to aquatic organisms.

Ecological Data for 2-Phenoxyethanol**Biodegradation**

90 %, i.e. readily biodegradable

Bioaccumulation

< 5 BCF

Acute and Prolonged Toxicity to Fish

LC50: 344 mg/l (Fathead minnow (Pimephales promelas), 96 h)

LC0: 200 mg/l (Golden orfe (Leuciscus idus), 48 h)

Toxicity to Microorganisms

EC0: 1,000 mg/l, (Pseudomonas putida)

EC0: 1,000 mg/l, (Pseudomonas fluorescens)

Ecological Data for Polydimethylsiloxane**Biodegradation**

9.9 %, Exposure time: 28 d, i.e. not readily degradable

Acute and Prolonged Toxicity to Fish

NOEC: 884 mg/l (Oncorhynchus mykiss (rainbow trout), 96 h)

Acute Toxicity to Aquatic Invertebrates

NOEC: 963 mg/l (Daphnia magna (Water flea), 48 h)

Toxicity to Aquatic Plants

EC50: 623 mg/l, (Pseudokirchneriella subcapitata (green algae), 96 h)

Toxicity to Microorganisms

EC50: > 2,000 mg/l, (activated sludge)

13. Disposal Considerations**Waste Disposal Method**

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

Empty Container Precautions

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 15 of 18

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

14. Transportation Information**Land transport (DOT)**

Non-Regulated

Sea transport (IMDG)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Bisphenol A diglycidyl diacrylate, 2-Phenoxyethyl acrylate)
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 Bisphenol A diglycidyl diacrylate, 2-Phenoxyethyl acrylate)
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:

2-phenoxyethyl acrylate Included in the regulation but with no data values. See regulation for further details

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:

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
7 - 13%	2-phenoxyethyl acrylate	48145-04-6

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

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 16 of 18

Data is subject to change without notice.

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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:

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
>=1%	Oligomer	CAS# is a trade secret
15 - 40%	Epoxy Acrylate	55818-57-0
7 - 13%	Isobornyl acrylate ester	5888-33-5
7 - 13%	2-phenoxyethyl acrylate	48145-04-6
5 - 10%	1,6-Hexanedioldiacrylate	13048-33-4
1 - 5%	Methanone, (1-hydroxycyclohexyl)phenyl-	947-19-3
1 - 5%	Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	75980-60-8

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

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
0.1 - 1%	2-Phenoxyethanol	122-99-6
0.1 - 1%	2-Hydroxyethyl Acrylate	818-61-1
0.1 - 1%	2-Propenoic acid	79-10-7

California Proposition 65 List:

None.

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

Contact: Product Safety Department
Telephone: (412) 413-2835
Version Date: 09/30/2024
SDS Version: 1.3

Information contained in this Safety Data Sheet (SDS) is believed to be accurate but is furnished without warranty, express or implied, including warranties of merchantability or fitness for a particular purpose. The information relates only to the specific material designated herein. Covestro LLC assumes no legal responsibility for use of or reliance upon the information in this SDS and such information shall in no case be considered a part of our terms and conditions of sale. The user is responsible for determining whether the Covestro product is suitable for user's method of use or application. Covestro is not liable for any failure to observe the precautionary measures described in this SDS or for any misuse of the product.

Material Name: DeSolite 3471-2-136

Material Number: 50025034

Page: 17 of 18

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