

# SAFETY DATA SHEET



## 1. Identification

**Covestro LLC**  
**formerly Bayer MaterialScience 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:** ECOBAY CC  
**Material Number:** 83349655  
**Chemical Family:** Polyol System  
**Use:** Polyol components for the production of polyurethanes

## 2. Hazards Identification

### GHS Classification

Acute toxicity (Oral): Category 4  
Acute toxicity (Inhalation): Category 4  
Skin irritation: Category 2  
Eye irritation: Category 2A  
HNOC - Halo vision:  
Specific target organ toxicity -  
repeated exposure (Oral): Category 2 (Kidney)

### GHS Label Elements

Hazard pictograms:



Signal word: Warning

Hazard statements: Harmful if swallowed or if inhaled  
Causes skin irritation.  
Causes serious eye irritation.  
May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.  
Vapors can cause temporary corneal edema with symptoms of blurred vision or the appearance of halos around bright objects.

Precautionary statements: **Prevention:**

Material Name: ECOBAY CC

Material Number: 83349655

Do not breathe dust, mist, gas, vapors or spray.  
 Wash skin and face thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Use only outdoors or in a well-ventilated area.  
 Wear eye and face protection.  
 Wear protective gloves.

**Response:**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

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

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

Call a doctor or emergency medical facility (i.e. 911) if you feel unwell.

Get medical attention if you feel unwell.

Rinse mouth.

If skin irritation occurs: Get medical attention.

If eye irritation persists: Get medical attention.

Take off contaminated clothing and wash before reuse.

**Disposal:**

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

**3. Composition/Information on Ingredients**

**Hazardous Components**

<u>Weight Percent</u>	<u>Components</u>	<u>CAS-No.</u>	<u>Classification</u>
20 - 30%	Polymer	CAS# is a trade secret	Acute toxicity Category 4 Oral.
5 - 10%	Hydrofluorocarbon	460-73-1	Eye irritation Category 2B. Simple Asphyxiant.
5 - 10%	Glycol	CAS# is a trade secret	Acute toxicity Category 4 Oral. Specific target organ toxicity - single exposure Category 3 Central nervous system. Specific target organ toxicity - repeated exposure Category 2 Oral Kidney.
5 - 10%	Tris-(2-chloroisopropyl)-phosphate	13674-84-5	Acute toxicity Category 4 Oral. Eye irritation Category 2B.
1 - 5%	2-Butoxyethanol	111-76-2	Acute toxicity Category 4 Oral. Acute toxicity Category 3 Inhalation. Acute toxicity Category 4 Dermal. Skin irritation Category 2. Eye irritation Category 2A. Flammable liquids Category 4.
Material Name: ECOBAY CC		Material Number: 83349655	

1 - 5%	Tertiary Amine	CAS# is a trade secret	Acute toxicity Category 4 Oral. Acute toxicity Category 3 Inhalation. Acute toxicity Category 3 Dermal. Skin corrosion Category 1A. Serious eye damage Category 1. HNOC - Halo vision. Flammable liquids Category 3.
1 - 5%	Ester derivative	CAS# is a trade secret	Eye irritation Category 2A.

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:** Causes skin irritation with symptoms of reddening, itching, and swelling., Causes serious eye irritation with symptoms of reddening, tearing, swelling, and burning., Vapor can reduce oxygen available for breathing., Vapors can cause temporary corneal edema with symptoms of blurred vision or the appearance of halos around bright objects.

##### Eye Contact

In case of contact, flush eyes with plenty of water for at least 15 minutes. Call a physician immediately.

##### Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention.

##### 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. Get medical attention.

#### 5. Firefighting Measures

**Suitable Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>), Dry chemical, Foam, water spray for large fires.

**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 (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke., other potentially toxic fumes

### Unusual Fire/Explosion Hazards

The reaction of this product with polymeric MDI ("A" side) will release heat (e.g., it is an exothermic reaction). Thus, spraying foam too thickly in a single lift, or not allowing sufficient time between lifts, can result in excessive heat generation to the point where the foam may char, smolder or burn. Refer to the appropriate technical datasheet for application instructions.

## 6. Accidental Release Measures

### Spill and Leak Procedures

Evacuate and keep unnecessary people out of spill area. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate. Contain the spill. Cover spill with inert material (e.g., dry sand or earth) and collect for proper disposal.

## 7. Handling and Storage

### Handling/Storage Precautions

Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Keep container closed when not in use. Material is hygroscopic and may absorb small amounts of atmospheric moisture. If contamination with isocyanates is suspected, do not reseal containers. Do not get on skin or clothing. Do not get in eyes. Do not breathe vapours or spray mist.

### Storage Period:

6 Months

### Storage Temperature

**Minimum:** 18.33 °C (65 °F)

**Maximum:** 26.67 °C (80 °F)

### Substances to Avoid

Oxidizing agents, Isocyanates

## 8. Exposure Controls/Personal Protection

### Exposure Limits

When this product is heated or spray applied, amine vapors can be released.

### 2-Butoxyethanol (111-76-2)

US. ACGIH Threshold Limit Values  
Time Weighted Average (TWA): 20 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)  
Permissible exposure limit: 50 ppm, 240 mg/m<sup>3</sup>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)  
Skin designation: Can be absorbed through the skin.

US. ACGIH Threshold Limit Values  
Hazard Designation: Group A3 Confirmed animal carcinogen with unknown relevance to humans.

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**

When handling this product, ventilation of the work area is recommended.

#### **Respiratory Protection**

When this product is sprayed in combination with polymeric MDI ("A" side), a full-face or hood-type supplied air respirator operated in the positive pressure or continuous flow mode is required. For exterior spray applications where the use of supplied air respiratory protection may create a safety hazard (e.g., roof applications), an air purifying respirator with combination organic vapor/particulate (P100) cartridges may be substituted for a supplied air respirator. When handling the liquid product, particularly if heated or in a confined area, an air purifying respirator with combination organic vapor/particulate (P100) cartridges is recommended. The respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). When APRs are used, (a) the cartridges must be equipped with end-of-service life indicators (ESLI) certified by NIOSH, or (b) a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program.

#### **Hand Protection**

When this product is sprayed in combination with polymeric MDI ("A" side), fabric gloves coated in nitrile, neoprene, butyl or PVC are recommended. When handling liquid product, nitrile, neoprene, butyl or PVC gloves are recommended.

#### **Eye Protection**

When this product is sprayed in combination with polymeric MDI ("A" side), eye protection will be provided by the full-face or hood-type air supplied respirator as mentioned above in the respiratory protection section. When handling liquid product, chemical safety goggles or safety glasses with side-shields are required.

#### **Skin Protection**

When this product is sprayed in combination with polymeric MDI ("A" side), a disposable full body suit (e.g., Tyvek, Kleenguard, etc.) with attached hood and disposable over-boots are required. When handling liquid product, wear cloth work clothing including long pants and long-sleeved shirts. If the potential for splash to the body exists, impermeable protective clothing is recommended.

#### **Additional Protective Measures**

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.

### **9. Physical and Chemical Properties**

<b>State of Matter:</b>	liquid
<b>Color:</b>	Teal
<b>Odor:</b>	Amine
<b>Odor Threshold:</b>	No Data Available
<b>pH:</b>	8.5 - 10.5
<b>Freezing Point:</b>	No Data Available
<b>Boiling Point:</b>	No Data Available
<b>Flash Point:</b>	> 93.34 °C (200.01 °F)
<b>Evaporation Rate:</b>	No Data Available

Material Name: ECOBAY CC

Material Number: 83349655

<b>Lower explosion limit:</b>	No Data Available
<b>Upper Explosion Limit:</b>	No Data Available
<b>Vapor Pressure:</b>	No Data Available
<b>Vapor Density:</b>	No Data Available
<b>Density:</b>	No Data Available
<b>Relative Vapor Density:</b>	No Data Available
<b>Specific Gravity:</b>	1.14 - 1.16
<b>Solubility in Water:</b>	Partially soluble
<b>Partition Coefficient: n-octanol/water:</b>	No Data Available
<b>Auto-ignition Temperature:</b>	No Data Available
<b>Decomposition Temperature:</b>	No Data Available
<b>Dynamic Viscosity:</b>	450 - 500 cps @ 25 °C (77 °F)
<b>Kinematic Viscosity:</b>	No Data Available

## 10. Stability and Reactivity

### Hazardous Reactions

Hazardous polymerisation does not occur. The reaction of this product with polymeric MDI ("A" side) will release heat (e.g., it is an exothermic reaction). Thus, spraying foam too thickly in a single lift, or not allowing sufficient time between lifts, can result in excessive heat generation to the point where the foam may char, smolder or burn. Refer to the appropriate technical datasheet for application instructions.

### Stability

Stable

### Materials to Avoid

Oxidizing agents, Isocyanates

### Hazardous Decomposition Products

By Fire and Thermal Decomposition: Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke., other potentially toxic fumes

## 11. Toxicological Information

### Likely Routes of Exposure:

Inhalation  
Eye Contact  
Skin Contact

### Health Effects and Symptoms

**Acute:** Causes skin irritation with symptoms of reddening, itching, and swelling., Causes serious eye irritation with symptoms of reddening, tearing, swelling, and burning., Vapor can reduce oxygen available for breathing., Vapors can cause temporary corneal edema with symptoms of blurred vision or the appearance of halos around bright objects.

**Chronic:** May cause kidney damage.

### Toxicity Data for: ECOBAY CC

#### Acute Oral Toxicity

Acute toxicity estimate: 1422 mg/kg (Calculation method)

#### Acute Inhalation Toxicity

Acute toxicity estimate: 19.45 mg/l, 4 h, vapour (Calculation method)

#### Acute Dermal Toxicity

Material Name: ECOBAY CC

Material Number: 83349655

Acute toxicity estimate: > 5000 mg/kg (Calculation method)

### **Toxicity Data for Polymer**

#### **Toxicity Note**

Toxicity data is based on a similar product.

#### **Acute Oral Toxicity**

LD50: 1370 mg/kg (rat)

#### **Acute Dermal Toxicity**

LD50: 12800 mg/kg (rabbit)

### **Toxicity Data for Hydrofluorocarbon**

#### **Acute Inhalation Toxicity**

LC50: > 200000 ppm, 4 h, gas(rat)

#### **Acute Dermal Toxicity**

LD50: > 2000 mg/kg (rabbit)

LD50: > 2000 mg/kg (rat)

#### **Skin Irritation**

Non-irritating

#### **Eye Irritation**

rabbit, Mild eye irritation

#### **Sensitization**

Skin sensitisation:: non-sensitizer

#### **Repeated Dose Toxicity**

28 d, inhalation: NOAEL: 50,000 ppm, (Rat)

90 d, Inhalation: NOAEL: 2000 ppm, (Rat)

#### **Mutagenicity**

Genetic Toxicity in Vitro:

Cytogenetic assay: ambiguous (human lymphocytes, Metabolic Activation: with/without)

Ames: negative (Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Micronucleus Assay: negative (Mouse)

negative

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

No Teratogenic effects observed at doses tested.

### **Toxicity Data for Glycol**

#### **Acute Oral Toxicity**

Available data on diethylene glycol based on human poisoning reports that the median lethal dose is 1.34 ml/kg. Based on the available human toxicology data, it has been decided to classify this material as acute oral category 4.

#### **Acute Dermal Toxicity**

Material Name: ECOBAY CC

Material Number: 83349655

LD50: 11890 mg/kg (rabbit)

**Skin Irritation**

human skin, Slightly irritating

**Eye Irritation**

rabbit, Non-irritating

**Sensitization**

Maximisation Test (GPMT): negative (Guinea pig)

**Repeated Dose Toxicity**

90 Days, Oral: NOAEL: 200 mg/kg, (Rat, )

6 months, Inhalation: NOAEL: < 0.02 mg/l, (rat, )

225 days, Oral: NOAEL: 100 mg/kg, (Rat, male/female, daily)

**Mutagenicity**

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic Activation: with/without)

Chromosome aberration test: Negative results were reported in various in vitro studies. (Chinese hamster ovary (CHO) cells, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Cytogenetic assay: (hamster, )  
positive

Cytogenetic assay: (hamster, )  
negative

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

**Carcinogenicity**

rat, male/female, Oral, 108, daily

NOAEL: 1,160mg/kg body weight/day

Animal testing did not show any carcinogenic effects.rat, male/female, Oral, 108, ad libitum

NOAEL: 1,160mg/kg body weight/day

**Toxicity to Reproduction/Fertility**

One generation study, oral, (Mouse) NOAEL (parental): 3.5%, Fertility and mating indices were decreased. The survival and growth rates were reduced.Fertility Screening, oral, daily, (Mouse, male/female) NOAEL (parental): 3,060 mg/kg,

**Developmental Toxicity/Teratogenicity**

Mouse, oral, NOAEL (maternal): 1,250 mg/kg, Fetotoxicity seen only with maternal toxicity.Mouse, oral, NOAEL (maternal): 1,250 mg/kg, Fetotoxicity seen only with maternal toxicity.rabbit, female, oral, GD 7-19, daily, NOAEL (teratogenicity): 1,000 mg/kg, NOAEL (maternal): 1,000 mg/kg,

**Toxicity Data for Tris-(2-chloroisopropyl)-phosphate**

**Acute Oral Toxicity**

LD50: >= 1150 mg/kg (rat)



**Acute Inhalation Toxicity**

LC50: > 7.14 mg/l, 4 h, dust/mist(rat, male/female)

**Skin Irritation**

human skin, Patch Test, Non-irritating

human skin, Patch Test, Non-irritating

**Eye Irritation**

rabbit, OECD Test Guideline 405, Exposure Time: 24 h, Slightly irritating

**Sensitization**

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

dermal: non-sensitizer (Human, Patch Test)

**Repeated Dose Toxicity**

90 Days, oral: NOAEL: 36 mg/kg, (Rat, male)

13 weeks, oral: NOAEL: 2500 ppm, LOAEL: 800 ppm, (Rat, male, daily)

**Mutagenicity**

Genetic Toxicity in Vitro:

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

Positive and negative results were reported.

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

Positive and negative results were reported.

Genetic Toxicity in Vivo:

Micronucleus test: negative (Mouse, male/female, intraperitoneal)

negative

**Toxicity to Reproduction/Fertility**

Other method, inhalation, daily, (rat, male) Reproductive effects have been observed in animal studies. Two-generation study, (feeding study ) oral, daily, (rat, male/female) NOAEL (parental): 85 mg/kg,

**Developmental Toxicity/Teratogenicity**

rat, female, oral, gestation, daily, NOAEL (teratogenicity): > 1%, NOAEL (maternal): > 1% No

Teratogenic effects observed at doses tested.

No fetotoxicity observed at doses tested. rat, female, oral, gestation, NOAEL (teratogenicity): 1,000 mg/kg,

NOAEL (maternal): 1,000 mg/kg,

**Toxicity Data for 2-Butoxyethanol****Acute Oral Toxicity**

LD50: 1746 mg/kg (rat, male) (OECD Test Guideline 401)

**Acute Inhalation Toxicity**

LC50: 2.4 mg/l, 4 h, vapour(rat, male) (OECD Test Guideline 403)

LC50: 2.2 mg/l, 4 h, vapour(rat, female) (OECD Test Guideline 403)

**Acute Dermal Toxicity**

LD50: 2000 mg/kg (rabbit, male/female) (OECD Test Guideline 402)

**Skin Irritation**

Material Name: ECOBAY CC

Material Number: 83349655

rabbit, Exposure Time: 4 h, irritating

#### **Eye Irritation**

rabbit, OECD Test Guideline 405, irritating

#### **Sensitization**

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

dermal: non-sensitizer (Human, Patch Test)

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

#### **Repeated Dose Toxicity**

90 Days, inhalation: NOAEL: 0.121 mg/kg, (Rat, Male/Female, daily)

30 Days, inhalation: NOAEL: < 0.27 mg/kg, (Rat, Male/Female, daily)

90 days, dermal: NOAEL: 150 mg/kg, (rabbit, Male/Female, daily)

90 Days, Oral: NOAEL: 0.45 mg/l, (Rat, Male/Female, daily)

14 weeks, inhalation: (Rat, Male/Female, 6 hrs/day 5 days/week)

#### **Mutagenicity**

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic Activation: with/without)

Mammalian cell - gene mutation assay: Negative results were reported in various in vitro studies. (Chinese hamster ovary (CHO) cells, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Micronucleus Assay: negative (Mouse, )  
negative

Micronucleus Assay: negative (rat, male, intraperitoneal)  
negative

#### **Carcinogenicity**

Mouse, Male/Female, inhalation, 2 years, daily Animal experiments showed a statistically significant number of tumours.

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

Other method, oral, daily, (Rat, Male/Female) NOAEL (parental): 304 mg/kg, Reproductive effects have been observed in animal studies. Two generation study, oral, (Mouse, Male/Female) NOAEL (parental): 720 mg/kg, NOAEL (F1): 720 mg/kg, NOAEL (F2): 720 mg/kg,

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

Rat, female, inhalation, gestation, daily, NOAEL (teratogenicity): 0.97 mg/kg, NOAEL (maternal): 0.24 mg/kg, Teratogenic effects seen only with maternal toxicity. rabbit, female, gestation, daily, NOAEL (teratogenicity): 0.97 mg/kg, NOAEL (maternal): 0.48 mg/kg, Rat, Female, dermal, gestation, daily, NOAEL (teratogenicity): 5,400 mg/kg, NOAEL (maternal): < 1,800 mg/kg, rabbit, female, inhalation, gestation, 6 hours/day, NOAEL (maternal): 50 ppm

#### **Toxicity Data for Tertiary Amine**

##### **Acute Oral Toxicity**

Material Name: ECOBAY CC

Material Number: 83349655

LD50: 1630 mg/kg (rat)

**Acute Inhalation Toxicity**

LC50: 3.08 mg/l, 290 ppm, 4 h, vapour(rat)  
4 hour test is calculated.

LC50: 290 ppm, 6 h, vapour(rat)

**Acute Dermal Toxicity**

LD50: 234.92 mg/kg (rabbit)

**Skin Irritation**

Severely irritating

**Eye Irritation**

severe irritant

**Other Relevant Toxicity Information**

May cause irritation of respiratory tract.

**Toxicity Data for Ester derivative**

**Acute Oral Toxicity**

LD50: > 5000 mg/kg (rat, female) (OECD Test Guideline 423)

**Acute Inhalation Toxicity**

LC50: > 11 mg/l, 4 h, aerosol(rat) (OECD Test Guideline 403)

**Acute Dermal Toxicity**

LD50: > 2000 mg/kg (rat) (OECD Test Guideline 402)

**Skin Irritation**

OECD Test Guideline 404, Non-irritating

**Eye Irritation**

rabbit, Draize, Moderately irritating

**Sensitization**

non-sensitizer (Guinea pig)

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

**Repeated Dose Toxicity**

Inhalation: NOAEL: < 0.16 mg/l, (Rat, Male/Female)

2 weeks, dermal: NOAEL: 1,000 mg/kg, (Rat, Male/Female, 6 hrs/day 7 days/week)

**Mutagenicity**

Genetic Toxicity in Vitro:

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

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

In vitro mammalian cell gene mutation test: positive (Human lymphocytes, Metabolic Activation: with)

In vitro mammalian cell gene mutation test: negative (Human lymphocytes, Metabolic Activation: without)

Genetic Toxicity in Vivo:

Micronucleus Assay: negative (Mouse, Male/Female, inhalation)

negative

**Toxicity to Reproduction/Fertility**

One generation study, inhalation, (rat, Male/Female) NOAEL (parental): 1 mg/l, NOAEL (F1): 0.4 mg/l,

**Developmental Toxicity/Teratogenicity**

rat, female, inhalation, NOAEL (teratogenicity): 1 mg/l, NOAEL (maternal): 0.16 mg/l, No fetotoxicity observed at doses tested.

**Carcinogenicity:**

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

**12. Ecological Information****Ecological Data for: ECOBAY CC**

No data available for this product.

**Ecological Data for Polymer****Additional Ecotoxicological Remarks**

No data available for this component.

**Ecological Data for Hydrofluorocarbon****Acute and Prolonged Toxicity to Fish**

LC50: > 81.8 mg/l (Rainbow trout (*Salmo gairdneri*), 48 h)

**Acute Toxicity to Aquatic Invertebrates**

EC50: > 97.9 mg/l (Water flea (*Daphnia magna*), 96 h)

**Ecological Data for Glycol****Biochemical Oxygen Demand (BOD)**

5 Days, 4 %

20 Days, 53 %

**Acute and Prolonged Toxicity to Fish**

LC50: > 10,000 mg/l (Fathead minnow (*Pimephales promelas*), 48 h)

LC0: > 1,000 mg/l (Bluegill (*Lepomis macrochirus*), 96 h)

**Acute Toxicity to Aquatic Invertebrates**

EC50: > 10,000 mg/l (Water flea (*Daphnia magna*), 24 h)

**Toxicity to Aquatic Plants**

NOEC: 100 mg/l, End Point: growth (other: algae, 7 d)

**Toxicity to Microorganisms**

> 10,000 mg/l, (Other bacteria)

**Ecological Data for Tris-(2-chloroisopropyl)-phosphate****Biodegradation**

Aerobic, 0 %, Exposure time: 28 Days, Not readily biodegradable.

**Bioaccumulation**

Cyprinus carpio (Carp), Exposure time: 42 Days, ca. 0.8 - 2.8 BCF

**Acute and Prolonged Toxicity to Fish**

LC50: ca. 84 mg/l (Bluegill (*Lepomis macrochirus*), 96 h)

LC50: 51 mg/l (Fathead minnow (*Pimephales promelas*), 96 h)

LC50: 30 mg/l (Guppy (*Poecilia reticulata*), 96 h)

**Acute Toxicity to Aquatic Invertebrates**

EC50: ca. 131 mg/l (Water flea (*Daphnia magna*), 48 h)

**Toxicity to Aquatic Plants**

EC50: 45 mg/l, End Point: biomass (Green algae (*Scenedesmus subspicatus*), 72 h)

EC50: 41 - 55 mg/l, End Point: biomass (Green algae (*Selenastrum capricornutum*), 96 h)

**Toxicity to Microorganisms**

EC50: 295 mg/l, (*Photobacterium phosphoreum*, 30 min)

EC50: 784 mg/l, (Activated sludge microorganisms, 3 h)

**Ecological Data for 2-Butoxyethanol****Biodegradation**

aerobic, 100 %, Exposure time: 28 Days

**Biochemical Oxygen Demand (BOD)**

5 Days, 1,300 mg/g

20 Days, 1,800 mg/g

**Chemical Oxygen Demand (COD)**

2,180 mg/g

**Theoretical Biological Oxygen Demand (ThBOD)**

2,300 mg/g

**Bioaccumulation**

ca. 2.5 BCF

**Acute and Prolonged Toxicity to Fish**

LC50: 1,490 mg/l (Bluegill (*Lepomis macrochirus*), 96 h)

1,250 mg/l (Silverside Minnow (*Menidia peninsulae*), 96 h)

LC50: 2,137 mg/l (Fathead minnow (*Pimephales promelas*), 96 h)

**Acute Toxicity to Aquatic Invertebrates**

EC50: 1,720 - 1,850 mg/l (Water flea (*Daphnia magna*), 24 h)

LC50: 800 mg/l (Common shrimp (*Crangon crangon*), 48 h)

**Toxicity to Aquatic Plants**

EC50: > 1,000 mg/l, (Green algae (*Selenastrum capricornutum*), 7 Days)

**Toxicity to Microorganisms**

IC50: > 1,000 mg/l, (Activated sludge microorganisms, 16 h)

### Ecological Data for Tertiary Amine

#### **Biodegradation**

Not readily biodegradable.

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

LC50: 220 mg/l (Golden orfe (*Leuciscus idus*), 96 h)

### Ecological Data for Ester derivative

#### **Biodegradation**

aerobic, 75 %, Exposure time: 28 d, i.e. readily biodegradable

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

LC50: 33.6 mg/l (Fathead minnow (*Pimephales promelas*), 96 h)

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

EC50: 122.1 - 163.5 mg/l (Water flea (*Daphnia magna*), 48 h)

#### **Toxicity to Microorganisms**

EC10: 62.5 mg/l, (*Pseudomonas putida*, 18 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**

Recondition or dispose of empty container in accordance with governmental regulations.

## **14. Transportation Information**

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

Non-Regulated

#### **Sea transport (IMDG)**

Non-Regulated

#### **Air transport (ICAO/IATA)**

<b>Proper Shipping Name:</b>	Aviation regulated liquid, n.o.s. (contains Hydrofluorocarbon)
<b>Hazard Class or Division:</b>	9
<b>UN number:</b>	UN3334
<b>Packaging Group:</b>	III
<b>Hazard Label(s):</b>	MISCELLANEOUS

## **15. Regulatory Information**

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

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

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

#### **US. EPA CERCLA Hazardous Substances (40 CFR 302) Components:**

2-Butoxyethanol	Included in the regulation but with no data values. See regulation for further details
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Material Name: ECOBAY CC

Material Number: 83349655

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

**Acute Health Hazard**

**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:**

2-Butoxyethanol

**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:**

<u>Weight percent</u>	<u>Components</u>	<u>CAS-No.</u>
>=1%	Polyester Polyol	CAS# is a trade secret
15 - 40%	Polymer	CAS# is a trade secret
7 - 13%	Hydrofluorocarbon	460-73-1
5 - 10%	Glycol	CAS# is a trade secret
>=1%	Polyether Polyol	CAS# is a trade secret
5 - 10%	Tris-(2-chloroisopropyl)-phosphate	13674-84-5
1 - 5%	2-Butoxyethanol	111-76-2
1 - 5%	Tertiary Amine	CAS# is a trade secret
1 - 5%	Ester derivative	CAS# is a trade secret

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

<u>Weight percent</u>	<u>Components</u>	<u>CAS-No.</u>
1 - 5%	2-Butoxyethanol	111-76-2
0.1 - 1%	Ethylene Glycol	107-21-1

**California Prop. 65:**

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

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.

Contact: Product Safety Department

Material Name: ECOBAY CC

Material Number: 83349655

Telephone: (412) 413-2835  
SDS Number: 112000042578  
Version Date: 09/03/2015  
SDS Version: 4.0

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Covestro LLC. The information in this SDS 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.

|| Changes since the last version are highlighted in the margin. This version replaces all previous versions.