

SAFETY DATA SHEET



1. Identification

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TRANSPORTATION EMERGENCY

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

NON-TRANSPORTATION

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

Product Name: BAYDUR TB 100-40 COMP B
Material Number: 86681811
Chemical Family: Polyol System
Use: Polyol components for the production of polyurethanes

2. Hazards Identification

GHS Classification

Acute toxicity (Oral): Category 4
Serious eye damage: Category 1
Specific target organ toxicity -
repeated exposure: Category 2 (Pancreas)
Specific target organ toxicity -
repeated exposure (Oral): Category 2 (Kidney)
HNOC - Methemoglobin:

Carcinogenicity: Category 2

GHS Label Elements

Hazard pictograms:



Signal word: Danger

Hazard statements:
Harmful if swallowed.
Causes serious eye damage.
Suspected of causing cancer if inhaled.
May cause damage to organs (Pancreas) through prolonged or repeated exposure.
May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.
Inhalation, skin absorption, or ingestion may cause methemoglobin formation resulting in a reduced ability of the blood to carry oxygen;

Material Name: BAYDUR TB 100-40 COMP B

Material Number: 86681811

a symptom of this may be cyanosis (purplish-blue coloring of skin, fingernails, and lips).

Precautionary statements:

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
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.
Wear permeation resistant protective gloves and clothing. Wear eye and face protection.

Response:

Get medical attention if you feel unwell.
IF exposed or concerned: Get medical advice/ attention.
IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a doctor or emergency medical facility (i.e., 911).
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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:
26 %

3. Composition/Information on Ingredients

Hazardous Components

Concentration	Components	CAS-No.
10 - 30%	Polyether Polyol	CAS# is a trade secret
10 - 30%	Polyol	CAS# is a trade secret
7 - 13%	Glycol	CAS# is a trade secret
7 - 13%	Polyether Polyol	CAS# is a trade secret
5 - 10%	Diethyltoluenediamine (DETDA)	68479-98-1
1 - 5%	Ethylene Glycol	107-21-1
0.1 - 1%	Tertiary Amine	CAS# is a trade secret
0.1 - 1%	Carbon Black	1333-86-4
0.1 - 1%	Tertiary Amine	CAS# is a trade secret

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 serious eye damage with symptoms of eye burns, corneal injury, and possible blindness., Inhalation, skin absorption, or ingestion may cause methemoglobin formation resulting in a reduced ability of the blood to carry oxygen; a symptom of this may be cyanosis (purplish-blue coloring of skin, fingernails, and lips).

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Get medical attention if irritation develops.

Inhalation

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. In case of blue discoloration (cyanosis) of skin, lips, or fingernails, give oxygen to breathe.

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 (CO₂), Dry chemical, Foam, water spray for large fires.

Unsuitable Extinguishing Media: High volume water jet

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: Carbon Dioxide Carbon Monoxide Other hazardous decomposition products may be formed.

6. Accidental Release Measures

Spill and Leak Procedures

Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Use appropriate personal protective equipment during clean up. Evacuate and keep unnecessary people out of spill area.

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. Avoid breathing dust, vapor, or mist. Avoid contact with eyes. Avoid contact with skin or clothing.

Substances to Avoid

Oxidizing agents, Isocyanates

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

Ethylene Glycol (107-21-1)

US. ACGIH Threshold Limit Values, as amended
Short Term Exposure Limit (STEL): 10 mg/m³ (Inhalable fraction.)

US. ACGIH Threshold Limit Values, as amended
Short Term Exposure Limit (STEL): 50 ppm (Vapor.)

US. ACGIH Threshold Limit Values, as amended
Time weighted average 25 ppm (Vapor.)

US. ACGIH Threshold Limit Values, as amended
Hazard Designation: Group A4 Not classifiable as a human carcinogen.

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.

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.

Personal protective equipment

Avoid contact with skin, eyes and clothing.

Industrial Hygiene/Ventilation Measures

Use local and general exhaust ventilation to control levels of exposure. Thermal processing operations should be ventilated to control gases and fumes given off during processing.

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, Neoprene gloves, butyl-rubber

Eye Protection

Chemical safety goggles in combination with a full face shield if a splash hazard exists.

Skin Protection

Wear as appropriate:, Impervious protective clothing.

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

State of Matter:	liquid
Color:	Black
Odor:	amine-like
Odor Threshold:	No Data Available
pH:	No Data Available
Freezing Point:	No Data Available
Setting Point:	No Data Available
Melting Point:	No Data Available
Boiling Point:	No Data Available
Flash Point:	> 100 °C (> 212 °F)
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:	1.04 g/cm ³ @ 20 °C (68 °F)
Relative Vapor Density:	No Data Available
Specific Gravity:	No Data Available
Solubility in Water:	Soluble
Partition Coefficient: n-octanol/water:	No Data Available
Auto-ignition Temperature:	No Data Available
Decomposition Temperature:	No Data Available
Unblocking Temperature:	No Data Available
Softening point:	No Data Available
Dynamic Viscosity:	No Data Available
Kinematic Viscosity:	No Data Available
Bulk Density:	No Data Available
Molecular Weight:	No Data Available
Pour point:	No Data Available

10. Stability and Reactivity**Hazardous Reactions**

Hazardous polymerisation does not occur.

Stability

Stable

Materials to Avoid

Oxidizing agents, Isocyanates

Hazardous Decomposition Products

By Fire: Carbon Dioxide; Carbon Monoxide; Other hazardous decomposition products may be formed.

11. Toxicological Information

Likely Routes of Exposure: Skin Contact
Eye Contact
Inhalation

Health Effects and Symptoms

Acute: Causes serious eye damage with symptoms of eye burns, corneal injury, and possible blindness., Inhalation, skin absorption, or ingestion may cause methemoglobin formation resulting in a reduced ability of the blood to carry oxygen; a symptom of this may be cyanosis (purplish-blue coloring of skin, fingernails, and lips).

Chronic: May cause damage to the pancreas., May cause liver damage., Suspected of causing cancer.

Toxicity Data for: BAYDUR TB 100-40 COMP B

Acute Oral Toxicity

Acute toxicity estimate: 1,146 mg/kg (Calculation method)

Acute Dermal Toxicity

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

Toxicity Data for: Polyether Polyol

Acute Oral Toxicity

Acute toxicity estimate: 500 mg/kg

Acute Inhalation Toxicity

, aerosol

Acute Dermal Toxicity

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

Skin Irritation

rabbit, OECD Test Guideline 404, slight irritant
Toxicological studies of a comparable product.

Eye Irritation

rabbit, OECD Test Guideline 405, slight irritant
Toxicological studies of a comparable product.

Sensitization

Skin sensitisation according to Buehler (epicutaneous test):: negative (Guinea pig, OECD Test Guideline 406)

Studies of a comparable product.

Repeated Dose Toxicity

4 w, Oral: NOAEL: >= 1,000 mg/kg, (rat, male/female, daily)
Studies of a comparable product.

Mutagenicity

Material Name: BAYDUR TB 100-40 COMP B

Material Number: 86681811

Genetic Toxicity in Vitro:

Salmonella/microsome test (Ames test): No indication of mutagenic effects. (Metabolic Activation: with/without)

Studies of a comparable product.

Toxicity to Reproduction/Fertility

Oral, daily, (rat, male/female) No toxicity to reproduction

Studies of a comparable product.

Developmental Toxicity/Teratogenicity

rat, female, Oral, 58 d, NOAEL (maternal): 1,000 mg/kg, Studies of a comparable product.

Toxicity Data for: Polyol

Acute Dermal Toxicity

LD50: 11,890 mg/kg (rabbit)

Skin Irritation

rabbit, OECD Test Guideline 404, slight irritant

Studies of a comparable product.

Eye Irritation

In vitro test system, HET-CAM test, severe irritant

Studies of a comparable product.

Sensitization

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

Studies of a comparable product.

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 Inhalation Toxicity

LC50: > 4.6 mg/l, 4 h, dust/mist (rat)

Acute Dermal Toxicity

LD50: 11,890 mg/kg (rabbit)

Skin Irritation

human skin, Slightly irritating

Eye Irritation

rabbit, Non-irritating

Sensitization

Maximisation Test: 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: Polyether Polyol

Acute Oral Toxicity

LD50: 1,400 mg/kg (rat, male/female) (Directive 84/449/EEC, B.1)

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, Slightly irritating

Sensitization

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

Repeated Dose Toxicity

Material Name: BAYDUR TB 100-40 COMP B

Material Number: 86681811

4 w, Oral: NOAEL: 40 mg/kg, (rat, male/female, daily)
Studies of a comparable product.

Mutagenicity

Genetic Toxicity in Vitro:

Salmonella/microsome test (Ames test): No indication of mutagenic effects. (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 (Chinese hamster V79 cell line, Metabolic Activation: with/without)

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

Carcinogenicity

No data available.

Toxicity to Reproduction/Fertility

Oral, daily, (rat, male/female) Fertility and developmental toxicity tests did not reveal any effect on reproduction.

Studies of a comparable product. Fertility Screening, Oral, daily, (rat, male/female) Fertility and developmental toxicity tests did not reveal any effect on reproduction.

Studies of a comparable product.

Developmental Toxicity/Teratogenicity

rat, female, Oral, 58 d, NOAEL (maternal): 10 mg/kg, Fertility and developmental toxicity tests did not reveal any effect on development.

Studies of a comparable product.

Toxicity Data for: Diethyltoluenediamine (DETDA)

Acute Oral Toxicity

LD50: 738 mg/kg (rat, male/female) (OECD Test Guideline 401)

Acute Dermal Toxicity

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

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, irritating

Sensitization

Skin sensitisation:: negative (Guinea pig)

Repeated Dose Toxicity

90 Days, Oral: NOAEL: 3 mg/kg, LOAEL: 8 mg/kg, (Rat, male/female, daily)

21 d, Dermal: NOAEL: 100 mg/kg, (rabbit, male/female, 6 hours a day, 5 days a week)

2 a, Oral: NOAEL: 0.4 mg/kg, LOAEL: 3.2 mg/kg, (rat, male/female, daily)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: positive (Salmonella typhimurium, Metabolic Activation: with)

Positive and negative results were seen in various in vitro studies.

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

Activation: with)

Positive and negative results were seen in various in vitro studies.

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

Activation: without)

Positive and negative results were seen in various in vitro studies.

Chromosome aberration test: ambiguous (human lymphocytes, Metabolic Activation: with/without)

Positive and negative results were seen in various in vitro studies.

Genetic Toxicity in Vivo:

Dominant Lethal Assay: (rat, Male/Female, oral)

negative

Cytogenetic assay: (Rat, male, oral)

positive

Micronucleus Assay: (Mouse, Male/Female, intraperitoneal)

negative

Micronucleus Assay: (Mouse, Male/Female, Oral)

negative

Carcinogenicity

Rat, Male/Female, oral, 2 years, daily positive
Rat, Male/Female, oral, 2 years, daily

LOAEL: ≥ 3.2

Developmental Toxicity/Teratogenicity

rat, female, Oral, NOAEL (maternal): 2.63 mg/kg,

Toxicity Data for: Ethylene Glycol

Acute Oral Toxicity

A review by LaKind (1999) summarized the toxicity of ethylene glycol. The lethal oral dose in humans has been estimated to be 1.4 ml/kg or approximately 100 ml/adult. This is based on accidental poisoning and intentional ingestion and was derived from the lowest dose reported to cause death in a human. Ethylene glycol appears to be two to five times more acutely toxic in humans and cats than to other experimental animals. The same data and lethal dose for ethylene glycol is cited in numerous other papers and in toxicology books. Based on the available human toxicology data, it has been decided to classify this material as acute oral category 4.

Acute Dermal Toxicity

LD50: 9,530 mg/kg (rabbit)

Skin Irritation

Draize Test, Mild skin irritation

Eye Irritation

rabbit, Draize, Mild eye irritation

Sensitization

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

Repeated Dose Toxicity

16 Weeks, Inhalation: NOAEL: 3.49 mg/l, (Rat, Male/Female, daily)

6 Weeks, Inhalation: NOAEL: 48 mg/kg, LOAEL: 107 mg/kg, (Rat, Male/Female, 7 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)

Genetic Toxicity in Vivo:

Dominant Lethal Assay: (rat, male, oral)
negative

Micronucleus Assay: (Mouse,)
negative

Drosophila SLRL test: (Drosophila melanogaster,)
positive

Dominant Lethal Assay: negative (rat, male, Oral)
negative

Carcinogenicity

rat, oral, 2 years, daily Did not show carcinogenic effects in animal experiments. Mouse, dermal, lifetime, daily negative Mouse, oral, 2 years, daily

Toxicity to Reproduction/Fertility

Fertility Screening, oral, (Mouse, Male/Female) NOAEL (parental): 2,500 mg/kg, NOAEL (F1): > 750 mg/kg, No effects on Reproductive parameters observed at doses tested. Three generation study, oral, daily, (rat) NOAEL (parental): > 1,000 mg/kg, NOAEL (F1): > 1,000 mg/kg, NOAEL (F2): > 1,000 mg/kg,

Developmental Toxicity/Teratogenicity

rabbit, female, dermal, NOAEL (teratogenicity): ca. 2,000 mg/kg, NOAEL (maternal): > 1,000 mg/kg, Teratogenic effects have been observed in animal studies.

Fetotoxicity has been observed in animal studies. Rat, female, oral, NOAEL (teratogenicity): < 500 mg/kg, NOAEL (maternal): 1,000 mg/kg, Teratogenic effects have been observed in animal studies. Fetotoxicity has been observed in animal studies.

Toxicity Data for: Tertiary Amine

Acute Oral Toxicity

LD50: 1,840 mg/kg (rat, female)

Acute Dermal Toxicity

LD50: 569 mg/kg (rat)

Skin Irritation

In vitro test system, Corrosive

Eye Irritation

Corrosive

Sensitization

Skin sensitisation:: sensitizer

Mutagenicity

Genetic Toxicity in Vitro:

Ames test: No indication of mutagenic effects.

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.

Toxicity Data for: Tertiary Amine

Acute Oral Toxicity

LD50: 700 mg/kg (rat)

Acute Inhalation Toxicity

LC50: > 5 mg/l, 4 h, dust/mist (rat)

4 hour test is calculated.

LC50: > 20 mg/l, 1 h, dust/mist (rat)

Acute Dermal Toxicity

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

Skin Irritation

Moderately irritating

Eye Irritation

rabbit, Severely irritating

Repeated Dose Toxicity

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

28 d, Inhalation: NOAEL: 0.0058 mg/l, (rat,)

Mutagenicity

Genetic Toxicity in Vivo:

Micronucleus Assay: negative (rat)

negative

Toxicity to Reproduction/Fertility

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

Other Relevant Toxicity Information

May cause irritation of respiratory tract.

Carcinogenicity:

Carbon Black

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

12. Ecological Information**Ecological Data for: BAYDUR TB 100-40 COMP B**

No data available for this product. Please find below the data available to us for the hazardous components:

Ecological Data for Polyether Polyol**Biodegradation**

aerobic, 40 %, Exposure time: 28 d, i.e. not readily degradable

Studies of a comparable product.

Acute and Prolonged Toxicity to Fish

LC50: > 1,000 mg/l (Leuciscus idus (Golden orfe), 96 h)

Studies of a comparable product.

Acute Toxicity to Aquatic Invertebrates

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

Studies of a comparable product.

Toxicity to Aquatic Plants

ErC50: > 100 mg/l, (Desmodemus subspicatus (Green algae), 72 h)

Studies of a comparable product.

Toxicity to Microorganisms

Material Name: BAYDUR TB 100-40 COMP B

Material Number: 86681811

EC10: > 10,000 mg/l, (activated sludge, 3 h)
Studies of a comparable product.

Ecological Data for Polyol

Biodegradation

60 %, Exposure time: 28 d, i.e. not readily degradable
Studies of a comparable product.

Acute and Prolonged Toxicity to Fish

LC50: > 100 mg/l (Brachydanio rerio (Zebra barbel), 96 h)
Studies of a comparable product.

Acute Toxicity to Aquatic Invertebrates

EC50: > 100 mg/l (Daphnia magna (Water flea), 48 h)
Studies of a comparable product.

Toxicity to Aquatic Plants

ErC50: 157 mg/l, (Desmodesmus subspicatus (Green algae), 72 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 Polyether Polyol

Biodegradation

aerobic, 27 %, Exposure time: 28 d, i.e. not readily degradable

Zahn-Wellens Test, 42 %, Exposure time: 27 d, i.e. not inherently degradable

Bioaccumulation

Due to the low n-octanol-water partition coefficient, an accumulation in organisms is not to be expected.

Acute and Prolonged Toxicity to Fish

LC50: > 100 mg/l (Danio rerio (zebra fish), 96 h)

Acute Toxicity to Aquatic Invertebrates

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

Toxicity to Aquatic Plants

ErC50: 208.9 mg/l, (Desmodesmus subspicatus (Green algae), 72 h)

Toxicity to Microorganisms

EC10: ca. 1,800 mg/l, (activated sludge, 3 h)

Studies of a comparable product.

Ecological Data for Diethyltoluenediamine (DETDA)**Biodegradation**

aerobic, 0.00 %, Exposure time: 28 Days

Chemical Oxygen Demand (COD)

2,370 mg/g

Acute and Prolonged Toxicity to Fish

LC50: Approximately 194 mg/l (Golden orfe (*Leuciscus idus*), 48 h)

Acute Toxicity to Aquatic Invertebrates

EC50: Approximately 0.5 mg/l (Water flea (*Daphnia magna*), 48 h)

Toxicity to Microorganisms

EC10: 170 mg/l, (*Pseudomonas putida*, 24 h)

Ecological Data for Ethylene Glycol**Biodegradation**

Aerobic, > 40 %, Exposure time: 20 Days

Biochemical Oxygen Demand (BOD)

5 Days, 0.78 - 1.81 g/g

Chemical Oxygen Demand (COD)

1.19 - 1.29 g/g

Theoretical Biological Oxygen Demand (ThBOD)

1.26 - 1.29 g/g

Bioaccumulation

Leuciscus idus (Golden orfe), Exposure time: 3 Days, 10 BCF

Acute and Prolonged Toxicity to Fish

41,000 mg/l (Coho salmon, silver salmon (*Oncorhynchus kisutch*), 96 h)

LC50: 49,000 - 57,000 mg/l (Fathead minnow (*Pimephales promelas*), 96 h)

LC50: 18,500 mg/l (Rainbow trout (*Salmo gairdneri*), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 46,300 - 57,600 mg/l (Water flea (*Daphnia magna*), 48 h)

EC50: 13,900 - 29,700 mg/l (*Ceriodaphnia* sp, 48 h)

Toxicity to Aquatic Plants

EC50: 6,500 - 13,000 mg/l, End Point: growth (Green algae (*Selenastrum capricornutum*), 96 h)

Toxicity to Microorganisms

EC50: 10,000 mg/l, (*Pseudomonas putida*, 16 h)

EC50: 621 mg/l, (*Photobacterium phosphoreum*, 30 min)

Ecological Data for Tertiary Amine

Additional Ecotoxicological Remarks

No data available for this component.

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)

Ecological Data for Tertiary Amine

Biodegradation

7 %, Exposure time: 28 Days

Acute and Prolonged Toxicity to Fish

LC50: 1,730 mg/l (Fathead minnow (Pimephales promelas), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 92 mg/l (Water flea (Daphnia magna), 48 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)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Diethyltoluenediamine (DETDA))
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 Diethyltoluenediamine (DETDA))
Hazard Class or Division: 9
UN number: UN3082
Packaging Group: III

Material Name: BAYDUR TB 100-40 COMP B

Material Number: 86681811

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

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:

Ethylene Glycol Reportable quantity: 5000 lbs

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:

Ethylene Glycol

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>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
>=1%	Polyether Polyol	CAS# is a trade secret
10 - 30%	Polyether Polyol	CAS# is a trade secret
10 - 30%	Polyol	CAS# is a trade secret
7 - 13%	Glycol	CAS# is a trade secret
7 - 13%	Polyether Polyol	CAS# is a trade secret
>=1%	Glycol	CAS# is a trade secret
5 - 10%	Diethyltoluenediamine (DETDA)	68479-98-1
1 - 5%	Ethylene Glycol	107-21-1
0.1 - 1%	Tertiary Amine	CAS# is a trade secret
0.1 - 1%	Carbon Black	1333-86-4

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>
1 - 5%	Ethylene Glycol	107-21-1
0.1 - 1%	Carbon Black	1333-86-4

Massachusetts Right to Know Extraordinarily Hazardous Substance List:

Material Name: BAYDUR TB 100-40 COMP B

Material Number: 86681811

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
<100 ppm	1,4-Dioxane	123-91-1

California Proposition 65 List:

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
1 - 5%	Ethylene Glycol	107-21-1
0.1 - 1%	Carbon Black	1333-86-4
<100 ppm	1,4-Dioxane	123-91-1

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:	07/03/2023
SDS Version:	2.0

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