

# 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:** DESMOPHEN XP 2488 FL.  
**Material Number:** 80616539  
**Chemical Family:** Polyester Polyol  
**Use:** Raw material for coatings, adhesives, sealants, or elastomers in industrial applications

## 2. Hazards Identification

### GHS Classification

Serious eye damage: Category 1  
Reproductive toxicity: Category 2

### GHS Label Elements

Hazard pictograms:



Signal word: Danger

Hazard statements: Causes serious eye damage.  
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.  
Wear permeation resistant protective gloves and clothing. Wear eye and face protection.  
**Response:**  
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).  
**Storage:**

Material Name: DESMOPHEN XP 2488 FL.

Material Number: 80616539

Store locked up.

**Disposal:**

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

### 3. Composition/Information on Ingredients

#### Hazardous Components

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
20 - 30%	1,4-Cyclohexanedimethanol	105-08-8
1 - 5%	Neopentylglycol	126-30-7
1 - 5%	Trimethylolpropane	77-99-6

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.

#### Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Call a physician immediately.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediately remove contaminated clothing and shoes. Call a physician immediately. 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 using a pocket mask type resuscitator. Call a physician immediately.

#### Ingestion

Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate 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. Toxic and irritating gases/fumes may be given off during burning or thermal decomposition. 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 Carbon Monoxide Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke., Other undetermined compounds

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

Water runoff from fire fighting may be corrosive. 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. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Do not allow spilled material or wash water to enter sewers, surface waters, or groundwater systems. Wash spill area with soap and water.

## **7. Handling and Storage**

### **Handling/Storage Precautions**

Do not breathe vapours or spray mist. Do not get on skin or clothing. Do not get in eyes. Do not taste or swallow. Use only with adequate ventilation/personal protection. 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. Handle in accordance with good industrial hygiene and safety practices.

### **Storage Period:**

6 Months: after receipt of material by customer

### **Storage Temperature**

**Minimum:** 0 °C (32 °F)

**Maximum:** 30 °C (86 °F)

### **Storage Conditions**

Store separate from food products. Protect from freezing. Avoid contact with moisture/water.

### **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**

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**

Use local and general exhaust ventilation to control levels of exposure.

### **Respiratory Protection**

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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.

#### **Eye Protection**

splash proof goggles., Face-shield

#### **Skin Protection**

Permeation resistant clothing and foot protection.

#### **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. Emergency showers and eye wash stations should be available.

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

<b>State of Matter:</b>	liquid
<b>Color:</b>	Light yellow to yellow
<b>Odor:</b>	alcohol-like
<b>Odor Threshold:</b>	No Data Available
<b>pH:</b>	not applicable
<b>Freezing Point:</b>	No Data Available
<b>Setting Point:</b>	No Data Available
<b>Melting Point:</b>	No Data Available
<b>Boiling Point:</b>	200 °C (392 °F)
<b>Flash Point:</b>	ca. 114 °C (237.2 °F) @ 1,013 hPa (DIN EN ISO 2719)
<b>Evaporation Rate:</b>	No Data Available
<b>Lower explosion limit:</b>	No Data Available
<b>Upper Explosion Limit:</b>	No Data Available
<b>Vapor Pressure:</b>	< 110 kPa @ 50 °C (122 °F)
<b>Vapor Density:</b>	No Data Available
<b>Density:</b>	ca. 1.124 g/cm <sup>3</sup> @ 20 °C (68 °F) (DIN 51757)
<b>Relative Vapor Density:</b>	No Data Available
<b>Specific Gravity:</b>	No Data Available
<b>Solubility in Water:</b>	Insoluble
<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>Unblocking Temperature:</b>	No Data Available
<b>Softening point:</b>	No Data Available
<b>Dynamic Viscosity:</b>	ca. 19,710 mPa.s @ 20 °C (68 °F)
<b>Kinematic Viscosity:</b>	No Data Available
<b>Bulk Density:</b>	No Data Available
<b>Molecular Weight:</b>	No Data Available
<b>Pour point:</b>	No Data Available
<b>Self Ignition:</b>	not applicable

## 10. Stability and Reactivity

### Hazardous Reactions

Hazardous polymerisation does not occur.

### Stability

Stable

### Materials to Avoid

Oxidizing agents, Isocyanates

### Conditions to Avoid

Avoid extreme heat or cold.

### Hazardous Decomposition Products

By Fire and Thermal Decomposition: Carbon Dioxide; Carbon Monoxide; Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke., Other undetermined compounds

## 11. Toxicological Information

### Likely Routes of Exposure:

Skin Contact  
Eye Contact  
Ingestion  
Inhalation

### Health Effects and Symptoms

**Acute:** Causes serious eye damage with symptoms of eye burns, corneal injury, and possible blindness.

**Chronic:** Suspected of damaging fertility or the unborn child.

### Toxicity Data for: DESMOPHEN XP 2488 FL.

Data on the product is not available.

Please find the data available for the components.

### Acute Oral Toxicity

Acute toxicity estimate: 3,963 mg/kg (Calculation method)

### Toxicity Data for: 1,4-Cyclohexanedimethanol

#### Acute Oral Toxicity

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

#### Acute Inhalation Toxicity

LC50: > 1.25 mg/l, 6 h, dust/mist (rat)

#### Acute Dermal Toxicity

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

#### Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

#### Eye Irritation

rabbit, OECD Test Guideline 405, Corrosive

**Sensitization**

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

**Repeated Dose Toxicity**

Oral: NOAEL: 8 mg/l, (rat, male/female)

**Mutagenicity**

Genetic Toxicity in Vitro:

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

Genetic Toxicity in Vivo:

Cytogenetic assay: negative (rat, male/female, Oral)  
negative

**Toxicity to Reproduction/Fertility**

Fertility Screening, Oral, ad libitum, (rat, male/female) NOAEL (parental): 479 mg/kg, .8%,

**Developmental Toxicity/Teratogenicity**

Rat, oral, NOAEL (teratogenicity): 1,360 mg/kg, NOAEL (maternal): 854 mg/kg, No Teratogenic effects observed at doses tested.

Fetotoxicity seen only with maternal toxicity. Rat, Male/Female, oral, daily, NOAEL (maternal): 1,000 mg/kg,

**Toxicity Data for: Neopentylglycol**

**Acute Oral Toxicity**

LD50: > 6,400 mg/kg (rat, male/female) (OECD Test Guideline 401)

**Acute Inhalation Toxicity**

LC0: 0.14 mg/l, 8 h, vapour (rat, male/female) (OECD Test Guideline 403)

**Acute Dermal Toxicity**

LD50: > 4,000 mg/kg (Guinea pig) (OECD Test Guideline 402)

**Skin Irritation**

rabbit, Non-irritating

**Eye Irritation**

rabbit, OECD Test Guideline 405, Severely irritating

**Sensitization**

non-sensitizer (Guinea pig)

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

**Repeated Dose Toxicity**

36 Days, Oral: NOAEL: 14.5 mg/kg, (Rat, Male/Female, daily)

Oral: NOAEL: 14.5 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 in vitro: negative (Chinese hamster cells, Metabolic Activation: with/without)

**Toxicity to Reproduction/Fertility**

One generation study, oral, (Rat, Male/Female) NOAEL (parental): 1,000 mg/kg, NOAEL (F1): 1,000 mg/kg, No effects on Reproductive parameters observed at doses tested. Fertility Screening, oral, daily, (Rat, Male/Female) NOAEL (parental): 300 mg/kg, NOAEL (F1): 1,000 mg/kg, No effects on Reproductive parameters observed at doses tested.

**Toxicity Data for: Trimethylolpropane**

**Acute Oral Toxicity**

LD50: 14,700 mg/kg (rat, male)

**Acute Inhalation Toxicity**

LC50: > 0.85 mg/l, 4 h, dust/mist (rat, male)

**Acute Dermal Toxicity**

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

**Skin Irritation**

rabbit, Exposure Time: 24 h, non-irritant

**Eye Irritation**

rabbit, OECD Test Guideline 405, Non-irritating

**Sensitization**

dermal: non-sensitizer (Human, Patch Test)

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

negative (Human)

**Repeated Dose Toxicity**

28 Days, oral: NOAEL: 220 mg/kg, (Rat)

There were no adverse effects seen at highest dose tested.

90 d, Oral: NOAEL: ca. 67 mg/kg, (rat, male/female, daily)

**Mutagenicity**

Genetic Toxicity in Vitro:

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

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

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

**Toxicity to Reproduction/Fertility**

extended one-generation study, Oral, (rat, male/female)

**Carcinogenicity:**

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

## 12. Ecological Information

### Ecological Data for: DESMOPHEN XP 2488 FL.

Data on the product is not available. Please find the data available for the components.

### Ecological Data for 1,4-Cyclohexanedimethanol

#### **Biodegradation**

i.e. readily biodegradable

#### **Biochemical Oxygen Demand (BOD)**

5 Days, 25 mg/g

#### **Chemical Oxygen Demand (COD)**

2,400 mg/g

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

LC50: > 100 mg/l (96 h)

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

EC50: > 100 mg/l (Daphnia magna (Water flea), 96 h)

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

ErC50: > 122.9 mg/l, (Selenastrum capricornutum (green algae), 72 h)

### Ecological Data for Neopentylglycol

#### **Biodegradation**

Aerobic, > 95 %, Exposure time: 15 Days

#### **Chemical Oxygen Demand (COD)**

2,100 mg/g

#### **Bioaccumulation**

Cyprinus carpio (Carp), Exposure time: 42 Days, < 9 BCF

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

LC50: > 1,000 mg/l (Killifish (Oryzias latipes), 96 h)

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

> 1,000 mg/l (Water flea (Daphnia magna), 24 h)

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

EC50: > 500 mg/l, (Green algae (Scenedesmus subspicatus), 72 h)

#### **Toxicity to Microorganisms**

180 mg/l, (Pseudomonas putida)

### Ecological Data for Trimethylolpropane

#### **Biodegradation**

Aerobic, 100 %, Exposure time: 28 Days

Readily biodegradable.

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

LC50: 1,000 mg/l (Golden orfe (Leuciscus idus), 48 h)

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

Material Name: DESMOPHEN XP 2488 FL.

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EC50: 13,000 mg/l (Water flea (Daphnia magna), 48 h)

**Toxicity to Microorganisms**

EC0: 10,000 mg/l, (Pseudomonas fluorescens, 24 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. Do not reuse empty container without proper cleaning. Label precautions also apply to this container when empty.

**14. Transportation Information**

**Land transport (DOT)**

Non-Regulated

**Sea transport (IMDG)**

Non-Regulated

**Air transport (ICAO/IATA)**

Non-Regulated

**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) Components:**

None

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

Refer to hazard classification information in Section 2.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A) Components:**

None

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required Components:**

None

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

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

**State Right-To-Know Information**

Material Name: DESMOPHEN XP 2488 FL.

Material Number: 80616539

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%	Polyester Polyol	CAS# is a trade secret
20 - 30%	1,4-Cyclohexanedimethanol	105-08-8
3 - 7%	Propylene glycol	57-55-6
1 - 5%	1,3-Butanediol	107-88-0
1 - 5%	Neopentylglycol	126-30-7
1 - 5%	Trimethylolpropane	77-99-6

**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**

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](http://www.productsafetyfirst.covestro.com).

Contact: Product Safety Department  
Telephone: (412) 413-2835  
Version Date: 05/06/2021  
SDS Version: 5.1

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