

SAFETY DATA SHEET



1. Identification

Covestro LLC
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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
Material Number: 05725267
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

Material Number: 05725267

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 (CO₂), 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 (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), 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

State of Matter:	liquid
Color:	Light yellow to yellow
Odor:	alcohol-like
Odor Threshold:	No Data Available
pH:	not applicable
Freezing Point:	No Data Available
Setting Point:	No Data Available
Melting Point:	No Data Available
Boiling Point:	200 °C (392 °F)
Flash Point:	ca. 114 °C (237.2 °F) @ 1,013 hPa (DIN EN ISO 2719)
Evaporation Rate:	No Data Available
Lower explosion limit:	No Data Available
Upper Explosion Limit:	No Data Available
Vapor Pressure:	< 110 kPa @ 50 °C (122 °F)
Vapor Density:	No Data Available
Density:	ca. 1.124 g/cm ³ @ 20 °C (68 °F) (DIN 51757)
Relative Vapor Density:	No Data Available
Specific Gravity:	No Data Available
Solubility in Water:	Insoluble
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:	ca. 19,710 mPa.s @ 20 °C (68 °F)
Kinematic Viscosity:	No Data Available
Bulk Density:	No Data Available
Molecular Weight:	No Data Available
Pour point:	No Data Available
Self Ignition:	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 (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), 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

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

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

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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

Material Number: 05725267

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.

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.