

SAFETY DATA SHEET



1. Identification

Covestro LLC
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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: ARCOL® POLYOL PPG 4000
Material Number: 05486742
Use: Polyol components for the production of polyurethanes

2. Hazards Identification

This product is not classified as hazardous according to OSHA HazCom 2012 (29 CFR 1910.1200).

3. Composition/Information on Ingredients

Hazardous Components

There are no hazardous components above the relevant concentration limits according to OSHA HazCom 2012.

4. First Aid Measures

Eye Contact

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

Skin Contact

In case of skin contact, wash affected areas with soap and water. Thoroughly clean shoes before reuse. Wash clothing before reuse. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if irritation develops.

Ingestion

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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 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 (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke., Other undetermined compounds

6. Accidental Release Measures

Spill and Leak Procedures

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. Collect and place in appropriately marked sealable containers for disposal. Wash spill area with soap and water.

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 inhalation of vapour or mist.

Storage Temperature

Minimum: 20 °C (68 °F)
Maximum: 60 °C (140 °F)

Storage Conditions

Store separate from food products.

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Substances to Avoid

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

Country specific exposure limits have not been established or are not applicable

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

None required under normal conditions of use.

Hand Protection

Ensure gloves remain in good condition during use and replace if any deterioration is observed.

Permeation resistant gloves., Butyl rubber gloves., Nitrile rubber gloves., Neoprene gloves

Eye Protection

Safety glasses with side-shields

Skin Protection

No special skin protection requirements during normal handling and use.

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:	Colorless
Odor:	mild
Odor Threshold:	No Data Available
pH:	4.5 - 6
Boiling Point:	No Data Available
Flash Point:	213 °C (415.4 °F) (Pensky-Martens closed cup)
Evaporation Rate:	No Data Available
Lower explosion limit:	No Data Available
Upper Explosion Limit:	No Data Available
Vapor Pressure:	< 0.001 mmHg @ 20 °C (68 °F)
Vapor Density:	No Data Available
Density:	1 g/cm ³ @ 20 °C (68 °F) (DIN 51757)
Relative Vapor Density:	No Data Available
Specific Gravity:	1.01 @ 20 °C (68 °F)
Solubility in Water:	No Data Available
Partition Coefficient: n-octanol/water:	No Data Available
Auto-ignition Temperature:	No Data Available
Decomposition Temperature:	Not established

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Dynamic Viscosity: 980 cps @ 25 °C (77 °F)
Kinematic Viscosity: No Data Available
Bulk Density: 1,007 kg/m3 @ 20 °C (68 °F)
Pour point: < -25 °C (-13 °F) (ISO 3016)

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerisation does not occur.

Stability

Stable

Materials to Avoid

Oxidizing agents, Isocyanates

Conditions to Avoid

None known.

Hazardous Decomposition Products

By Fire and Thermal Decomposition: 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

Toxicity Data for: ARCOL® POLYOL PPG 4000

Acute Dermal Toxicity

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

Skin Irritation

rabbit, OECD Test Guideline 404, non-irritant

Eye Irritation

rabbit, OECD Test Guideline 405, slight irritant

Sensitization

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

Mutagenicity

Genetic Toxicity in Vitro:

Salmonella/microsome test (Ames test): No indication of mutagenic effects.

Carcinogenicity:

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

12. Ecological Information

Biodegradation

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

Acute and Prolonged Toxicity to Fish

LC50: > 100 mg/l (Poecilia reticulata (guppy), 96 h)

Acute Toxicity to Aquatic Invertebrates

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

Toxicity to Aquatic Plants

EC0: >= 100 mg/l, (Desmodesmus subspicatus (Green algae), 72 h)

Toxicity to Microorganisms

EC50: > 1,000 mg/l, (activated sludge, 3 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. Empty containers retain product residue; observe all precautions for product. Do not heat or cut container with electric or gas torch.

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

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**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

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	25322-69-4

Massachusetts Right to Know Extraordinarily Hazardous Substance List:

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
1 - 5 ppm	Acetaldehyde	75-07-0
25 - 30 ppm	Furan	110-00-9
5 - 10 ppm	Propylene Oxide	75-56-9

California Proposition 65 List:

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
1 - 5 ppm	Acetaldehyde	75-07-0
25 - 30 ppm	Furan	110-00-9
5 - 10 ppm	Propylene Oxide	75-56-9

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: 03/06/2020
SDS Version: 2.10

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

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