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:	BAYHYDROL UH 2305
Material Number:	57821497
Chemical Family:	Aqueous Polyurethane Resin Dispersion
Use:	Raw material for coatings, adhesives, sealants, or elastomers in industrial applications

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

Most Important Symptom(s)/Effect(s)

Acute: Not expected to cause adverse acute health effects.

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Get medical attention if irritation develops.

Skin Contact

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

Inhalation
If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

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 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 (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke, Isocyanate, Isocyanic Acid and other undetermined compounds.

6. Accidental Release Measures

Spill and Leak Procedures
Dike or dam spilled material and control further spillage, if possible. Prevent from entering open drains and waterways. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Ventilate area to remove vapors or dust.

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. Protect from freezing.

Storage Temperature
Minimum: 5 °C (41 °F)
Maximum: 30 °C (86 °F)

Storage Conditions
Store in a cool dry place. Store in original or similar containers. Store separate from food products. Protect from freezing.

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
Water reactives

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
General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines. Thermal processing operations should be ventilated to control gases and fumes given off during processing. Curing ovens must be ventilated to prevent the build up of explosive atmospheres and to prevent off gases from entering the work place.

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., Butyl rubber gloves., Nitrile rubber gloves.

Eye Protection
Safety glasses with side-shields

Skin Protection
Permeation resistant clothing, Gloves, long sleeved shirts and pants.

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:	White
Odor:	slight inherent odour
Odor Threshold:	No Data Available
pH:	ca. 7.5
Boiling Point:	ca. 100 °C (212 °F) @ 1,013 hPa
Flash Point:	No flash point up to initial boiling point.
Evaporation Rate:	No Data Available
Lower Explosion Limit:	Not Established
Upper Explosion Limit:	Not Established
Vapor Pressure:	Approximately 23 hPa @ 20 °C (68 °F) (EG A4) Approximately 123 hPa @ 50 °C (122 °F) (EG A4)
Vapor Density:	No Data Available
Density:	ca. 1.1 g/cm³ @ 23 °C (73.4 °F) (DIN 51757)

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:	not established
Decomposition Temperature:	No Data Available
Unblocking Temperature:	No Data Available
Dynamic Viscosity:	No Data Available
Kinematic Viscosity:	No Data Available
Bulk Density:	Approximately 1,098 kg/m³
Molecular Weight:	No Data Available
Pour point:	0 °C (32 °F)
Self Ignition:	not applicable

10. Stability and Reactivity

Hazardous Reactions
Hazardous polymerisation does not occur.

Stability
Stable

Materials to Avoid
Water reactives

Conditions to Avoid
Protect from freezing.

Hazardous Decomposition Products
By Fire and Thermal Decomposition: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke, Isocyanate, Isocyanic Acid and other undetermined compounds.

11. Toxicological Information

Likely Routes of Exposure: Skin Contact
Eye Contact

Health Effects and Symptoms

Acute: Not expected to cause adverse acute health effects.
Chronic: Not expected to cause adverse chronic health effects.

Toxicity Data for: BAYHYDROL UH 2305

Data on the product is not available.

Please find the data available for the components.

Toxicity Data for: Polyurethane Resin

Acute Oral Toxicity
LD50: > 2,000 mg/kg (rat, male/female) (OECD Test Guideline 423)

Studies of a comparable product.

Acute Inhalation Toxicity
LC50: > 2.676 mg/l, 4 h, dust/mist (rat, male/female) (OECD Test Guideline 403)
Toxicological studies of a comparable product.

Acute Dermal Toxicity
Acute toxicity estimate: > 2,000 mg/kg
Studies of a comparable product.

Skin Irritation
rabbit, OECD Test Guideline 404, slight irritant
Studies of a comparable product.

Eye Irritation
rabbit, OECD Test Guideline 405, slight irritant
Studies of a comparable product.

Sensitization
Sensitization of the skin: negative (Guinea pig, OECD Test Guideline 406)
Studies of a comparable product.

Skin sensitization (local lymph node assay (LLNA)):: negative (Mouse, OECD Test Guideline 429)
Studies of a comparable product.

Repeated Dose Toxicity
Oral: NOAEL: 1,000 mg/kg, (rat)
Studies of a comparable product.

Mutagenicity
Genetic Toxicity in Vitro:
Ames test: negative (Salmonella typhimurium, Metabolic Activation: with/without)
Studies of a comparable product.
Ames test: negative (Escherichia coli, Metabolic Activation: with/without)
Studies of a comparable product.
In vitro mammalian cell gene mutation test: negative (Chinese hamster V79 cell line, Metabolic Activation: with/without)
Studies of a comparable product.

Genetic Toxicity in Vivo:

No data available.

Carcinogenicity
No data available.
Toxicity to Reproduction/Fertility
No data available.
Developmental Toxicity/Teratogenicity
No data available.

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

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

12. Ecological Information

Ecological Data for: BAYHYDROL UH 2305

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

Ecological Data for Polyurethane Resin
Biodegradation
Closed Bottle test, 19 %, Exposure time: 28 d, i.e. not readily degradable
Studies of a comparable product.

17 %, Exposure time: 28 d, i.e. not inherently degradable
Studies of a comparable product.

Bioaccumulation
Cyprinus carpio (Carp),
An accumulation in aquatic organisms is not to be expected. Studies of a comparable product.

Acute and Prolonged Toxicity to Fish
LC50: > 100 mg/l (Brachydanio rerio (zebrafish), 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
No data available.

Toxicity to Microorganisms
EC50: > 100 mg/l, (activated sludge, 96 h)
Studies of a comparable product.

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)
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
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:

Concentration	Components	CAS-No.
>=1%	Water	7732-18-5
>=1%	Polyurethane Resin	CAS# is a trade secret

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

Concentration	Components	CAS-No.
0.1 - 1%	Acetone	67-64-1

California Proposition 65 List:

Concentration	Components	CAS-No.
<100 ppm	Toluene	108-88-3
<1 ppm	Hexachlorobenzene	118-74-1

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).

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:	07/02/2021
SDS Version:	3.13

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