SAFETY DATA SHEET

Section 1. Identification	
Product identifier	Solvent Based Urethane - Part A
Other means of identification	SB Urethane
Recommended use and restrictions on use	Floor coating
Supplier informations	11530 Chairman Dr, Dallas, TX 75243 927.293.4444 contact@advancedresins.com
Emergency telephone number/restriction on use	Canada – CANUTEC 24-hour number 613-996-6666

Section 2. Hazard identification

Classification of hazardous product (name of the category or subcategory of the hazard class)

Skin Irritation - Category 3
Eye Irritation - Category 2A
Respiratory Sensitizer (Solid/Liquid) - Category 1
Skin Sensitizer - Category 1
Acute toxicity Inhalation - Category 4

Information elements (symbols, signal words, hazard statements and precautionary statements of the category/subcategory)

Warning
Hazardous Statements - Health: H316 - Causes mild skin irritation. **H319** - Causes serious eye irritation. **H334** - May cause allergy or asthma symptoms or breathing difficulties if inhaled. **H317** - May cause an allergic skin reaction. **H332** - Harmful if inhaled.
Precautionary Statements - General: P101 - If medical advice is needed, have product container or label at hand. **P102** - Keep out of reach of children. **P103** - Read label before use.
Precautionary Statements - Prevention: P264 - Wash thoroughly after handling. **P280** - Wear protective gloves/protective clothing/eye protection/ face protection. **P261** - Avoid breathing dust/fume/gas/mist/vapors/spray. **P284** - [In case of inadequate ventilation] wear respiratory protection. **P272** - Contaminated work clothing should not be allowed out of the workplace. **P271** - Use only outdoors or in a well-ventilated area.
Precautionary Statements - Response: P332 + P313 - If skin irritation occurs: Get medical advice/attention. **P305 + P351 + P338** - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. **P337 + P313** - If eye irritation persists: Get medical advice/attention. **P304 + P340** - IF INHALED: Remove person to fresh air and keep comfortable for breathing. **P342 + P311** - If experiencing respiratory symptoms: Call a POISON CENTER/doctor. **P302 + P352** - IF ON SKIN: Wash with plenty of water. **P333 + P313** - If skin irritation or a rash occurs: Get medical advice/attention. **P321** - Specific treatment (see section 4 on this SDS). **P362 + P364** - Take off contaminated clothing. And wash it before reuse. **P312** - Call a POISON CENTER/doctor if you feel unwell.
Precautionary Statements - Storage: No precautionary statement available.
Precautionary Statements - Disposal: P501 - Dispose of contents/ container to an approved waste disposal plant.

Section 3. Composition/information on ingredients

Chemical name (common name/synonyms)	CAS number or other	Concentration (%)
HOMOPOLYMER OF HDI	0028182-81-2	57% - 100%
4-METHYL-1,3-DIOXOLAN-2-ONE	0000108-32-7	8% - 14%
HEXAMETHYLENE DIISOCYANATE	0000822-06-0	0.1% - 0.2%

* Statement - This safety data sheet provides concentration range(s) instead of the actual concentration(s) by weight (except for gases/propellants by volume) considered trade secret(s).

Section 4. First-aid measures	
Inhalation	Remove the source of exposure or relocate the individual to a well-ventilated area and ensure comfort for breathing. In the case of respiratory symptoms, contact a POISON CENTER or seek medical attention. If advised by medical professionals or the POISON CENTER, trained personnel should administer emergency oxygen if breathing becomes challenging. If exposed, feeling unwell, or harboring concerns, contact a POISON CENTER or consult a doctor. Additionally, if safe, eliminate all potential ignition sources.
Ingestion	Rince the mouth. Do NOT attempt to induce vomiting. Contact a POISON CENTER or seek medical attention immediately. If vomiting occurs spontaneously, lie on your side in the recovery position. If exposed or feeling concerned, seek medical advice or attention.
Skin contact	Remove contaminated clothing, shoes, and leather items (e.g., watchbands, belts). Gently dab or brush off any excess product. Rinse thoroughly with ample lukewarm, gently flowing water for 15-20 minutes. Seek medical advice or attention if skin irritation or a rash develops. Wash contaminated clothing before using it again or dispose of it. If exposed or feeling concerned, seek medical advice or attention.
Eye contact	Minimize direct contact. If needed, use chemical protective gloves. If eyes are affected, carefully rinse with lukewarm, gently flowing water for several minutes, keeping the eyelids open. If wearing contact lenses, remove them if easily possible. Continue rinsing for 15-20 minutes. Be cautious not to allow contaminated water to reach the unaffected eye or face. If eye irritation persists, seek medical advice or attention.
Indication of immediate medical attention/ special treatment	In all cases, call a doctor. Also consider the other instructions of this section document.

Section 5. Fire-fighting measures
Specific hazards
Vapors could gather and reach distant ignition points, leading to potential flash fires. Containers may explosively rupture due to excessive pressure or temperature. Water contamination will generate carbon dioxide. Avoid resealing contaminated containers as pressure buildup might cause them to rupture.
Suitable and unsuitable extinguishing media
Dry chemical, foam, or carbon dioxide are advisable. Employ water spray to cool or shield exposed materials or structures. Exercise caution with carbon dioxide in confined spaces as it can displace oxygen. Avoid simultaneous application of foam and water on the same surface as water disrupts the foam. Use sand or earth solely for small fires. If water is necessary, use ample amounts of cold water. Be mindful of the potential for a vigorous reaction between water and hot isocyanate.
Special protective equipment and precautions for fire-fighters
Utilize NIOSH-approved self-contained breathing apparatus set in positive pressure mode along with a full-face piece. Additionally, wear boots, neoprene gloves, goggles, and complete protective clothing. Caution must be consistently exercised in areas with dust or mist.
Fire-fighting Procedures
Secure the immediate hazard area and prevent unauthorized entry. Cease spillage or release if it can be done safely. If possible and safe, relocate undamaged containers from the immediate hazard zone. Employ water spray, if appropriate, to mitigate or disperse vapors and safeguard personnel. Water can be ineffective but may serve to cool containers exposed to heat or flames. Exercise caution with water or foam as frothing could occur, particularly when sprayed into containers of hot, burning liquid. Dispose of fire remnants and contaminated extinguishing water in compliance with official regulations.

Section 6. Accidental release measures
Personal precautions, protective equipment and emergency procedures
ELIMINATE any potential ignition sources (no smoking, flares, sparks, or flames in the nearby vicinity). Refrain from contacting or walking through spilled material. Isolate the hazardous area and prevent unnecessary individuals from entering. Remove all potential ignition sources in the nearby surroundings. Notify authorities if there's exposure or a likelihood of exposure to the general public or the environment. Using a regulated solvent to clean up spilled material may subject the resulting waste mixture to regulation. Wear an appropriate dust mask or face mask to prevent inhaling foam dust particulates. Avoid inhaling vapors and prevent contact with skin, eyes, or clothing. Refrain from touching damaged containers or spilled materials unless wearing suitable protective clothing.

Environmental Precautions

Halt the spill/release if it can be managed safely. Use sand, earth, or suitable barriers to block spilled material from entering sewers, storm drains, unauthorized drainage systems, or natural waterways.

Methods and materials for containment and cleaning up

Place a cover over the container without sealing it, then relocate it from the work area. Prepare a decontamination solution consisting of 2.0% liquid detergent and 3-8% concentrated ammonium hydroxide in water (or substitute 5-10% sodium carbonate for ammonium hydroxide if applicable). Follow the safety precautions provided in the supplier's safety data sheets. Apply the decontamination solution to the spill area, using roughly 10 parts of the solution for each part of the spill, and allow it to react for a minimum of 15 minutes. This reaction will produce carbon dioxide, resulting in insoluble polyureas. Even with this treatment, residues from spill cleanup may still fall under RCRA regulations and require storage and disposal as hazardous waste. Gradually mix the isocyanate waste into the aforementioned decontamination solution. Let it stand for 48 hours to allow any released carbon dioxide to disperse. Residues may still be subject to RCRA storage and disposal guidelines. Dispose of them in compliance with all pertinent local, state, and federal laws and regulations concerning treatment.

Section 7. Handling and storage

Precautions for safe handling

After use, cleanse your hands thoroughly. Avoid contact with eyes, skin, or clothing. Do not inhale vapors or mists. Maintain proper personal hygiene practices. Eating, drinking, and smoking are not allowed in work areas. Before entering eating areas, remove contaminated clothing and protective equipment.

Conditions for safe storage, including any incompatibilities

Ensure containers are tightly closed and appropriately labeled. Store them in cool, dry, well-ventilated locations, away from heat, direct sunlight, strong oxidizers, and incompatible substances. Employ approved containers and shield them against physical harm. Seal containers securely when not in use. Indoor storage areas should comply with OSHA standards and relevant fire codes. Re-seal opened containers carefully to prevent leaks, as empty containers may retain residues that could pose risks. Utilize non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems in areas where this product is utilized or stored. Ground and bond containers and receiving equipment, and use precautions against static electricity by grounding. Avoid cutting, drilling, grinding, welding, or similar activities on or near containers. Do not pressurize containers to empty them. Implement grounding measures according to the national electrical code for all structures, transfer containers, and equipment. Employ procedures to prevent static electrical sparks, as static electricity accumulation may present a fire hazard. Use only with adequate ventilation to regulate air contaminants within exposure limits. Local ventilation is advised to manage emissions near the source.

Section 8. Exposure controls/Personal protection

Eye/Skin/Respiratory Protection

EYE: Use eye protection with side shields or goggles. When handling liquids, wear impact and splash-resistant goggles with indirect vents. If full-face protection is required, combine with a face shield.
SKIN: Utilizing gloves approved to pertinent standards, crafted from materials such as PVC, neoprene, or nitrile rubber, may offer suitable chemical protection. The effectiveness and endurance of gloves depend on their use, including the frequency and duration of contact, the chemical resistance of the glove material, thickness, and dexterity. Always consult glove suppliers for guidance. Replace contaminated gloves promptly. Consider using an apron and chemically impervious over-boots made of materials like neoprene or nitrile rubber to prevent skin sensitization. Select the appropriate protective equipment based on the concentration and volume of hazardous substances in the specific workplace. Launder soiled clothing or dispose of contaminated materials properly if decontamination isn't feasible. Under certain usage conditions, additional protection might be necessary, such as aprons, arm covers, or full-body suits. Wash contaminated clothing thoroughly before reusing it.
RESPIRATORY: If the airborne concentrations are anticipated to surpass the TLV or have already exceeded it, employ MSHA/NIOSH approved positive pressure supplied air respiratory equipment with a full face piece or an air supplied hood. In emergency situations, rely on a positive pressure self-contained breathing apparatus. Note that air purifying (cartridge type) respirators are not sanctioned for safeguarding against isocyanates.

Appropriate engineering controls

Install exhaust ventilation or implement other engineering controls to maintain airborne vapor concentrations below their individual threshold limit values.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
XYLENE					1			100	435	150	655	

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
XYLENE	100	434	150	651

Section 9. Physical and chemical properties			
Density	9.68 lb/gal	**Lower Explosion Level**	Not available
Specific Gravity	1.16	**Upper Explosion Level**	Not available
VOC Regulatory	0.00 lb/gal	**Vapor Pressure**	Not available
VOC Part A & B Combined	Not available	**Vapor Density**	Heavier than air
Appearance, physical state/colour	Liquid	**Freezing Point**	Not available
Odour threshold	Not available	**Melting Point**	Not available
Odour description	Odorless	**Low Boiling Point**	203 °C
pH	Not available	**High Boiling Point**	Not available
Water Solubility	Not available	**Auto Ignition Temperature**	Not available
Flammability	Not available	**Decomposition Pt**	Not available
Flash Point Symbol	Not available	**Evaporation Rate**	Slower than ether
Flash Point	137 °C	**Coefficient Water/Oil**	Not available
Viscosity	Not available		

Section 10. Stability and reactivity	
Stability	The material remains stable under normal temperature and pressure conditions.
Possibility of hazardous reactions	Under typical circumstances, this process doesn't take place; however, elevated temperatures alongside alkalis, tertiary amines, and metal compounds can expedite polymerization. This could potentially lead to the generation of carbon dioxide gas, which may cause closed containers to rupture.
Conditions to avoid (static discharge, shock or vibration)	Heat, elevated temperatures, open flames, sparks, and moisture exposure, as well as contact with incompatible materials in a closed system, can lead to the release of carbon dioxide and an increase in pressure buildup.
Incompatible materials	The product will interact with substances that contain active hydrogens, like water, alcohol, ammonia, amines, alkalis, and acids. The reaction with water occurs slowly below 50°C, but speeds up at higher temperatures and in the presence of alkalis, tertiary amines, and metal compounds. Some reactions may be highly energetic. Additionally, the material can react with strong oxidizing agents.
Hazardous decomposition products	During combustion, carbon dioxide, carbon monoxide, nitrogen oxides, small quantities of hydrogen cyanide, and unidentified organic compounds might be generated.

Section 11. Toxicological information	
Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)	SKIN: Isocyanates interact with skin proteins and moisture, potentially leading to irritation. Extended contact can result in redness, swelling, a rash, scaling, blistering, and, in certain instances, skin sensitization. Those sensitive to skin reactions might experience symptoms from minimal exposure to liquid material or vapor. It causes mild skin irritation. EYE: Liquids, aerosols, or vapors cause intense irritation, leading to pain, tearing, redness, and swelling. Extended exposure to vapors might result in conjunctivitis. Any form of contact should receive prompt treatment and not be left unattended. It causes serious eye irritation. RESPIRATORY: Exposure may lead to allergy or asthma symptoms or breathing issues upon inhalation. It may also trigger an allergic reaction when in contact with the skin. CARCINOGENICITY: No data available

Specific Target Organ Toxicity - Single Exposure	No data available
Specific Target Organ Toxicity - Repeated Exposure	No data available
Germ Cell Mutagenicity	No data available
Reproductive Toxicity	No data available
Aspiration Hazard	No data available
Acute Toxicity	No data available 0000822-06-0 HEXAMETHYLENE DIISOCYANATE LC50 (rat): 310-350 mg/m3 (45-51 ppm) (4-hour exposure) (1,2) LC50 (rat): 274 mg/m3 (40 ppm) (1-hour exposure); 137 mg/m3 (20 ppm) (equivalent 4-hour exposure) (2) LC50 (mouse): 30 mg/m3 (4.4 ppm) (2-hour exposure); 21.2 mg/m3 (3.1 ppm) LD50 (oral, rat): 710 mg/kg (1); 738 mg/kg (2); 960 mg/kg (2) LD50 (oral, mouse): 350 mg/kg; 1980 mg/kg (2) LD50 (dermal, rabbit): 570 mg/kg (1); 593 mg/kg (2)
Potential Health Effects - Miscellaneous	0028182-81-2 HOMOPOLYMER OF HDI Excessive exposure may result in asthma-like reactions characterized by shortness of breath, wheezing, and coughing, which could potentially become permanent. It can also lead to permanent lung sensitization. This reaction might manifest several hours after the initial exposure. Exposure could worsen existing medical conditions such as asthma, skin disorders, and respiratory issues. Additionally, it may act as a potential skin sensitizer, causing allergic reactions and contact dermatitis, resulting in severe skin irritation, dryness, and cracking. Contact with the skin or eyes can cause irritation.
Section 12. Ecological information	
Toxicity	No data available.
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available
Section 13. Disposal considerations	
Information on waste disposal	According to RCRA regulations, the user must assess whether the product meets hazardous waste criteria at the time of disposal. Waste management should adhere to federal, state, and local laws. Empty containers may still contain hazardous residues, so avoid pressurizing, cutting, glazing, welding, or using them for other purposes. Return drums to reclamation centers for appropriate cleaning and reuse.
Section 14. Transport information	
U.S. DOT	Not regulated
IMDG	Not regulated
IATA	Not regulated
Section 15. Regulatory information	

CAS	Chemical Name	% By Weight	Regulation List
0028182-81-2	HOMOPOLYMER OF HDI	57% - 100%	DSL,SARA312,TSCA
0000108-32-7	4-METHYL-1,3-DIOXOLAN-2-ONE	8% - 14%	DSL,SARA312,TSCA
0000822-06-0	HEXAMETHYLENE DIISOCYANATE	0.1% - 0.2%	SARA313, DSL,CERCLA,HAPS,SARA312,VHAPS,VOC,TSCA

Section 16. Other information	
Date of the latest revision of the safety data sheet	November 28, 2023
References	Safety Data Sheets from manufacturer/supplier & from Canadian Centre for Occupational Health and Safety, CCOHS.
Other informations	Note: As per GHS, category 1 is the greatest level of hazard within each class.
Abbreviations	
ACGIH	American Conference of Governmental Industrial Hygienists
ANSI	American National Standards Institute
CA Prop65	California Proposition 65
Canadian TDG	Canadian Transportation of Dangerous Goods
CAS	Chemical Abstract Service
Chemtrec	Chemical Transportation Emergency Center (US)
CHIP	Chemical Hazard Information and Packaging
DSL	Domestic Substance List
EC	Equivalent Concentration
EH40	EH40 Occupational Exposure Limits
EPCRA	Emergency Planning and Community Right-To-Know Act
ESL	Effects Screening Levels
HMIS	Hazardous Material Information Service
LC	Lethal concentration
LD	Lethal Dosage
NFPA	National Fire
OEL	Occupational Exposure Limits
OSHA	Occupational Safety and Health Administration (U.S.A.)
PEL	Permissible Exposure Limit
SARA (Title III)	Superfund Amendments and Reauthorization Act
SARA 313	Superfund Amendments and Reauthorization Act, Section 313
SCBA	Self-Contained Breathing Apparatus
STEL	Short Term Exposure Limit
TCEQ	Texas Commission on Environmental Quality
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act Public Law 94-469
TWA	Time Weighted Value
US DOT	US Department of Transportation
WHMIS	Workplace Hazardous Materials Information System

To the best of our knowledge, the information provided here is accurate. However, neither the mentioned supplier nor any of its subsidiaries accepts liability for the accuracy or completeness of the information. The user is solely responsible for determining the suitability of any material. All materials may have unknown hazards and should be used cautiously. While specific hazards are outlined, we cannot guarantee these are the only hazards present. This information pertains to the current formulation of the product based on available data.The addition of reducers or other additives may significantly alter the composition and hazards. As usage conditions are beyond our control, we make no warranties, express or implied, and assume no liability for any use of this information.