

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product Name: PUR-Guard™ Part B, HD-SL, HD-SLE, HD-T, HD-TC, & HD-CB
Revision Date: Apr 02, 2025 **Date Printed:** Apr 02, 2025
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: Res-Tek, Inc.
Address: 110 Riverside Drive SW Cartersville, GA, 30120 United States of America
Emergency Phone: CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted).
Information Phone Number: 1-888-737-8351 / 1-770-427-4034
Product/Recommended Uses: Industrial Polyurethane Flooring Resin

SECTION 2) HAZARDS IDENTIFICATION

Classification

Eye Irritation - Category 2B

Respiratory Sensitizer (Solid/Liquid) - Category 1

Skin Irritation - Category 2

Skin Sensitizer - Category 1

Specific Target Organ Toxicity - Repeated Exposure - Category 2

Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) - Category 3

Safety data sheet prepared in accordance to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

Pictograms



Signal Word

Danger

Hazardous Statements - Health

H320 - Causes eye irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H373 - May cause damage to organs through prolonged or repeated exposure

H335 - May cause respiratory irritation

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.

P284 - Wear respiratory protection.

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P271 - Use only outdoors or in a well-ventilated area.

P233 - Keep container tightly closed.

Precautionary Statements - Response

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.

P321 - Specific treatment (see First-Aid on this label).

P362 + P364 - Take off contaminated clothing. And wash it before reuse.

P333 + P313 - If skin irritation or a rash occurs: Get medical advice/attention.

P314 - Get Medical advice/attention if you feel unwell.

P312 - Call a POISON CENTER/doctor if you feel unwell.

Precautionary Statements - Storage

P403 + P405 - Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal

P501 - Dispose of contents/container in accordance with local/national/international regulations.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000101-68-8	4,4'-METHYLENEDIPHENYL DIISOCYANATE	20% - 80%
0009016-87-9	POLYMETHYLENE POLYPHENYL ISOCYANATE	20% - 80%
0005873-54-1	BENZENE, 1-ISOCYANATO-2-[(4-ISOCYANATOPHENYL)METHYL]-	20% - 50%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. If exposed/If you feel unwell/If concerned: Call a POISON CENTER/doctor. Take precautions to ensure your own safety (e.g. wear appropriate protective equipment).

Eye Contact

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention. Avoid direct contact. Wear chemical protective gloves, if necessary.

Skin Contact

Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation or a rash occurs: Get medical advice/attention. Wash contaminated clothing before re-use or discard. Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts).

Ingestion

Rinse mouth. If exposed/If you feel unwell/If concerned: Call a POISON CENTER/doctor.

Most important symptoms and effects, both acute and delayed

No data available.

Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Small Fire : Dry chemical, foam, carbon dioxide, dry powder. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire : Foam, Carbon dioxide, Dry powder.

Unsuitable Extinguishing Media

Water may be used if no other available and then in copious quantities. Reaction between water and hot isocyanate may be vigorous.

Specific Hazards Arising from the Chemical

Fire will produce irritating gases.

Precautions for Firefighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out.

Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Equipment

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Stay uphill and/or upstream. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Evacuate and isolate hazard area and keep unauthorized personnel away.

Protective Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA). Breathing protection is required.

Personal Precautions

Do not breathe vapor or mist. Do not get on skin, eyes or clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up

Absorb Liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal. Ventilate area after clean-up is complete.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored. All containers must be properly labelled. Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Report ventilation failures immediately.

Storage Room Requirements

Store in a cool, dry, well ventilated area, away from sources of ignition and incompatibilities. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Indoor storage should meet OSHA standards and appropriate fire codes. Empty containers retain residue and may be dangerous.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)
4,4'-METHYLENEDI PHENYL DIISOCYANATE	1		0.02 ceiling	0.2 ceiling			0.005	
POLYMETHYLENE POLYPHENYL ISOCYANATE								
Chemical Name	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations	OSHA Skin designation	CAN_ONsmg	CAN_ONtmg
4,4'-METHYLENEDI PHENYL DIISOCYANATE				Resp sens				
POLYMETHYLENE POLYPHENYL ISOCYANATE								
Chemical Name	CAN_ONsppm	CAN_ONtppm	CAN_QCVEMP ppm - CANADA_QUE BEC VALEUR D"EXPOSITION MOYENNE PONDÉRÉE_ppm	CAN_QCVEMP mg - CANADA_QUE BEC VALEUR D"EXPOSITION MOYENNE PONDÉRÉE_mg	CAN_QCVECD ppm - CANADA_QUE BEC VALEUR D"EXPOSITION DE COURTE DURÉE_ppm	CAN_QCVECD mg - CANADA_QUE BEC VALEUR D"EXPOSITION DE COURTE DURÉE_mg	CAN_ALtppm	CAN_ALtmg
4,4'-METHYLENEDI PHENYL DIISOCYANATE	C 0.02	0.005	0.005	0.051			0.005	0.05
POLYMETHYLENE POLYPHENYL ISOCYANATE							0.005	0.07
Chemical Name	CAN_ALsmg	CAN_AL_Notation	CANtppm	CANtmg	CANsppm	CANsmg	CAN_AL_Carcinogen	CAN_ALsppm
4,4'-METHYLENEDI PHENYL DIISOCYANATE			0.005	0.051				
POLYMETHYLENE POLYPHENYL ISOCYANATE			.005	.07				
Chemical Name	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)	NIOSH STEL (mg/m3)	NIOSH STEL (ppm)	NIOSH Carcinogen			
4,4'-METHYLENEDI PHENYL DIISOCYANATE	0.050	0.005						

POLYMETHYL ENE POLYPHENYL ISOCYANATE					
---	--	--	--	--	--

(C) - Ceiling limit, resp - respiratory , sens - sensitization

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Color.	Brown.
Odor	Slightly musty.
Odor Threshold (ppm)	Not available.
pH (Value)	Not available.
Melting Point (°C) / Freezing Point (°C)	Not available.
Boiling point/boiling range (°C):	Not available.
Flash Point (°C)	213 (415°F)
Evaporation Rate	Not available.
Flammability (solid, gas)	Not available.
Explosive Limit Ranges	Not available.
Vapour pressure (mmHg)	Not available.
Vapour Density (Air=1)	Not available.
Density (g/ml)	Not available.
Specific Gravity	Not available.
Solubility (Water)	Not available.
Solubility (Other)	Not available.
Partition Coefficient (n-Octanol/water)	Not available.
Auto Ignition Point (°C)	Not available.
Decomposition Temperature (°C)	Not available.
Dynamic Viscosity (cPs @ 25°C)	Not available.
Explosive properties	Not explosive.
Oxidizing properties	Not available.
Other information	Not available.

SECTION 10) STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions/Polymerization

Will not occur. No data available.

Conditions To Avoid

Avoid heat, sparks, flame and contact with incompatible materials

Incompatible Materials

Strong bases, acids, amines, metals, water, and oxidizing agents.

Hazardous Decomposition Products

Combustion products may include: carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and HCN. In the event of extreme heat (>500°C), aniline is suspected of being formed.

SECTION 11) TOXICOLOGICAL INFORMATION

Acute Toxicity

The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for an inhalation (vapour) exposure to this mixture is >20 mg/l

The Acute Toxicity Estimate (ATE) for an inhalation (dust and mist) exposure to this mixture is >5 mg/l

Aspiration Hazard

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation

Causes eye irritation

Skin Corrosion/Irritation

Causes skin irritation

Specific Target Organ Toxicity - Repeated Exposure

May cause damage to organs through prolonged or repeated exposure

Specific Target Organ Toxicity - Single Exposure

May cause respiratory irritation

Chronic Exposure

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

Potential Health Effects - Miscellaneous

Based on available data, the classification criteria are not met.

0000101-68-8 4,4'-METHYLENEDIPHENYL DIISOCYANATE

LC50 (rat): 369-490 mg/m³ (aerosol) (4-hour exposure) (1)

LC50 (rat): 178 mg/m³ (17.4 ppm) (duration of exposure not reported) (2)

LD50 (oral, rat): greater than 10,000 mg/kg (1,2)

LD50 (dermal, rabbit): greater than 10,000 mg/kg (1)

LD50 (oral, mouse): 2,200 mg/kg (3)

0009016-87-9 POLYMETHYLENE POLYPHENYL ISOCYANATE

LC50 (rat): 490 mg/m³ (aerosol) 4-hour exposure (22)

LD50 (oral, rat): greater than 10000 mg/kg (PMPPI) (2)

LD50 (dermal, rabbit): greater than 5 mL/kg (6200 mg/kg) (PMPPI) (2)

SECTION 12) ECOLOGICAL INFORMATION

Ecotoxicity

Based on available data, the classification criteria are not met.

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

Waste Disposal

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14) TRANSPORT INFORMATION

Display Order	U.S. DOT Information	IMDG Information	IATA Information
UN Number	NOT REGULATED AS DANGEROUS GOODS*	NOT REGULATED AS DANGEROUS GOODS	NOT REGULATED AS DANGEROUS GOODS
UN proper shipping name			
Transport Hazard class(es)			
Packing group			
Hazardous substance (RQ)			
Environmental hazards			
Special precautions for user			
Transport in bulk according to Annex II of MARPOL and the IBC code	Not Applicable for product as supplied.		

*For bulk packages (>10,848 Lbs.): NA 3082, OTHER REGULATED SUBSTANCES, LIQUID n.o.s. (METHYLENE DIPHENYL DIISOCYANATE), 9, III, RQ 10848 Lbs.

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000101-68-8	4,4'-METHYLENEDIPHENYL DIISOCYANATE	20% - 80%	SARA313, Canada_NPRI, DSL - Domestic Substance List, CEPA_S1, CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act, SARA312, TSCA - Toxic Substances Control Act (TSCA), PA_HAZ - Pennsylvania Hazardous Substance List, Canada_ON_419, NJ_RightToKnow_HazSubList - New Jersey Right to Know Hazardous Substance List (RTKHSL), TSCA_CDR - TSCA - Chemical Data Reporting (CDR) Rule, MA_RightToKnow - Massachusetts Right to Know, TSCATS - TOXIC SUBSTANCES CONTROL ACT TEST SUBMISSIONS
0009016-87-9	POLYMETHYLENE POLYPHENYL ISOCYANATE	20% - 80%	SARA313, Canada_NPRI, DSL - Domestic Substance List, CEPA_S1, SARA312, TSCA - Toxic Substances Control Act (TSCA), Canada_ON_419, NJ_RightToKnow_HazSubList - New Jersey Right to Know Hazardous Substance List (RTKHSL), TSCA_CDR - TSCA - Chemical Data Reporting (CDR) Rule, TSCATS - TOXIC SUBSTANCES CONTROL ACT TEST SUBMISSIONS
0005873-54-1	BENZENE, 1-ISOCYANATO-2-[(4-ISOCYANATOPHENYL)METHYL]-	20% - 50%	DSL - Domestic Substance List, CEPA_S1, SARA312, TSCA - Toxic Substances Control Act (TSCA), TSCA_CDR - TSCA - Chemical Data Reporting (CDR) Rule

Glossary

ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL- Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.