

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product Name: RT-R Component
Revision Date: Jun 17, 2024
Version: 1.0
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: Additive for Industrial Flooring Resin

Date Printed: Jun 17, 2024
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SECTION 2) HAZARDS IDENTIFICATION

Classification

Flammable Liquids - Category 2
Acute toxicity Inhalation Dust/Mist - Category 4
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
Acute aquatic toxicity - 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

H332 - Harmful if inhaled
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

Hazardous Statements - Physical

H225 - Highly flammable liquid and vapor

Hazardous Statements - Environmental

H402 - Harmful to aquatic life

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

P273 - Avoid release to the environment.

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

P264 - Wash thoroughly after handling.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take action to prevent static discharges.

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

P284 - Wear respiratory protection.

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

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

Precautionary Statements - Response

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

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.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P370 + P378 - In case of fire: Use carbon-di oxide, alcohol foam, water spray or dry chemical to extinguish.

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.

Precautionary Statements - Storage

P403 + P235 - Store in a well-ventilated place. Keep cool.

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
0067815-87-6	ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER, POLYMER WITH 1,2-ETHANEDIAMINE, 2-METHYLOXIRANE AND 1,2-PROPANEDIOL	10% - 80%
0000080-62-6	METHYL METHACRYLATE	10% - 80%
0000101-68-8	4,4'-METHYLENEDIPHENYL DIISOCYANATE	10% - 50%
0009016-87-9	POLYMETHYLENE POLYPHENYL ISOCYANATE	1% - 50%
0026447-40-5	DIPHENYLMETHANE DIISOCYANATE (MDI) MIXED ISOMERS	1% - 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.

Eliminate all ignition sources if safe to do so.

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

If eye irritation persists:

Get medical advice/attention.

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.

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 or until medical aid is available.

Store contaminated clothing under water and wash before re-use or discard.

If skin irritation or a rash occurs:

Get medical advice/attention.

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, water-spray or alcohol-resistant foam.

Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Large Fire: Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards Arising from the Chemical

Runoff may pollute waterways

Fire will produce irritating and toxic gases.

Most vapors are heavier than air.

Vapors may form explosive mixtures with air

Vapors will spread along ground and collect in low or confined areas (sewers, basements, tanks)

Vapors may travel to source of ignition and flash back.

Many liquids are lighter than water.

Containers may explode in fire.

May form an ignitable vapor/air mixture in closed tanks or containers.

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. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Evacuate and isolate hazard area and keep unauthorized personnel away. A vapor-suppressing foam may be used to reduce vapors.

Protective Equipment

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

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. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Dike far ahead of liquid spill for later disposal.

Methods and Materials for Containment and Cleaning up

Ventilate area after clean-up is complete. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material.

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. All containers must be properly labelled. Do not breathe vapor or mist. Eyewash stations and showers should be available in areas where this material is used and stored ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not get in eyes, on skin, or on clothing.

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	
METHYL METHACRYLATE	1		100	410			50	
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				
METHYL METHACRYLATE	100		A4	URT & eye irr; body weight eff; pulm edema	DSEN; A4			
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
METHYL METHACRYLATE			50		100		50	205
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
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				
METHYL METHACRYLATE	410		100	410	125	510		100

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					
METHYL METHACRYLATE	410	100					
POLYMETHYLENE POLYPHENYL ISOCYANATE							

A4 - Not Classifiable as a Human Carcinogen, DSEN - Dermal sensitization, eff - Effects, irr - Irritation, pulm - Pulmonary, resp - respiratory, sens - sensitization, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Color.	Clear, Brown.
Odor	Sweet Ester-like
Odor Threshold (ppm)	Not available.
pH (Value)	Not available.
Melting Point (°C) / Freezing Point (°C)	- 48 (-54 °F)
Boiling point/boiling range (°C):	100 (212 °F)
Flash Point (°C)	9 (48°F)
Evaporation Rate	> 1 (Butyl acetate = 1)
Flammability (solid, gas)	Not applicable.
Explosive Limit Ranges	Not available.
Vapour pressure (mmHg)	27.8 @ 20°C
Vapour Density (Air=1)	3.1
Density (g/ml)	1.04 @ 25 °C (8.91 lb/gal).
Specific Gravity	1.04
Solubility (Water)	Not available.
Solubility (Other)	Not available.
Partition Coefficient (n-Octanol/water)	Not available.
Auto Ignition Point (°C)	430 (806°F)
Decomposition Temperature (°C)	Not available.
Dynamic Viscosity (cPs @ 25°C)	50.
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Other information	None.

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 all possible sources of ignition, heat, sparks, flame, build up of static electricity and contact with incompatible materials.

Incompatible Materials

Strong bases, acids, and oxidizing agents.

Hazardous Decomposition Products

Oxides of carbon.

SECTION 11) TOXICOLOGICAL INFORMATION**Acute Toxicity**

Harmful if inhaled

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

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

Chronic Exposure

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

Potential Health Effects - Miscellaneous

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

0000080-62-6 METHYL METHACRYLATE

LC50 (rat): 7093 ppm (4-hour exposure) (5)

LC50 (mouse): 3205 ppm (13080 mg/m³) (4-hour exposure); cited as 18500 mg/m³ (2-hour exposure) (6)

LD50 (oral, rat): 7940 mg/kg (cited as 8.41 cc/kg) (1)

LD50 (oral, mouse): 3625 mg/kg (8)

LD50 (dermal, rabbit): greater than 7550 mg/kg (cited as 8.0 mL/kg) (34)

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

Harmful to aquatic life

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:	UN1993	UN1993	UN1993
UN proper shipping name:	Flammable liquids, n.o.s.	Flammable liquids, n.o.s.	Flammable liquids, n.o.s.
Transport Hazard class(es)	3	3	3
Packing group	II	II	II
Hazardous substance (RQ)	No Data Available	No Data Available	No Data Available
Environmental hazards	No Data Available	No Data Available	No Data Available
Special precautions for user	No Data Available	No Data Available	No Data Available
Transport in bulk according to Annex II of MARPOL and the IBC code	No Data Available	No Data Available	No Data Available

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0067815-87-6	ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER, POLYMER WITH 1,2-ETHANEDIAMINE, 2METHYLOXIRANE AND 1,2PROPANEDIOL	10% - 80%	DSL - Domestic Substance List, SARA312, TSCA - Toxic Substances Control Act (TSCA), TSCA_CDR - TSCA - Chemical Data Reporting (CDR) Rule
0000080-62-6	METHYL METHACRYLATE	10% - 80%	SARA313, DSL - Domestic Substance List, 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), NJ_RightToKnow_SpecialHealthHazard_SubList - New Jersey Right To Know Special Health Hazard Substance List, TSCA_CDR - TSCA - Chemical Data Reporting (CDR) Rule, MA_RightToKnow - Massachusetts Right to Know, TSCATS - TOXIC SUBSTANCES CONTROL ACT TEST SUBMISSIONS
0000101-68-8	4,4'-METHYLENEDIPHENYL DIISOCYANATE	10% - 50%	SARA313, 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	1.00% - 50%	SARA313, 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
0026447-40-5	MDI (MONOMER)	1.00% - 50%	DSL - Domestic Substance List, CEPA_S1, SARA312, TSCA - Toxic Substances Control Act (TSCA), TSCA_CDR - TSCA - Chemical Data Reporting (CDR) Rule, TSCATS - TOXIC SUBSTANCES CONTROL ACT TEST SUBMISSIONS

SECTION 16) OTHER INFORMATION**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.

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