

Rubaroc® Standard Resin

Section 01 - Chemical and Product and Company Information

Product Identifier	MDI Binder
Product Name	Rubaroc® Standard Resin
Product Use	No further relevant information available.
Application/Preparation	Binder
Supplier Name	Rubaroc 2416 Wycroft Rd Unit #3 Oakville, ON L6L 6M6
Prepared by	Rubaroc Regulatory Department
Phone:	1 (888) 763-7276
Preparation Date	08/15/2018

24-Hour Emergency Phone

613-966-6666

Section 02 - Composition / Information on Ingredients

Chemical Characterization	Mixtures
Description	Polyurethane Binder
Dangerous Components	
26447-40-5	<i>Methenediphenyl Diisocyanate (MDI) Mixed Isomers</i> < 25%
	Resp. Sens. 1, H334; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335

Section 03 - Hazard Identification

Classification of the substance or mixture

GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

Storage Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO2 Gas). Store locked up.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Harmful Harmful by inhalation. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Irritant Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

Information concerning particular hazards for human and environment

The product has to be labelled due to the calculation procedure of international guidelines.

Classification system

The classification was made according to the latest editions of international substances lists and expanded upon from company and literature data.

Label elements

Labelling according to EU guidelines: The product has been classified and marked in accordance with directives on hazardous materials.

Code letter and hazard designation of product:

Harmful

Hazard-determining components of labelling:

Methylenediphenyl diisocyanate (MDI) Mixed Isomers

Risk phrases:

Harmful by inhalation.

Irritating to eyes, respiratory system and skin.

May cause sensitization by inhalation and skin contact.

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrases:

Keep locked up and out of the reach of children.

Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer).

Avoid contact with skin and eyes.

Wear suitable gloves.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Dispose of this material and its container to hazardous or special waste collection point.

In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Special labelling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer.

Classification system:

NFPA ratings (scale 0 - 4) Health = 2 Fire = 1 Reactivity = 1

HMIS-ratings (scale 0 - 4) Health = *2 Fire = 1 Reactivity = 1

Other hazards
Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Section 04 - First Aid Measures

General Information	Symptoms of poisoning may even occur after several hours; therefore, medical observation is required for at least 48 hours after the accident.
Skin Contact	Instantly wash with water and soap and rinse thoroughly. Remove any contaminated clothing. If skin irritation persists, seek medical advice.
Eyes	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of respiratory failure or breathing irregularities, commence resuscitation or administer oxygen. In case of unconsciousness, place patient stably inside position for transportation.
Ingestion	Do not induce vomiting; immediately call for medical help.
Note to Physician	None.

Section 05 - Fire Fighting

Extinguishing media CO₂, extinguishing powder or water spray. Fight larger fires with water spray.

For safety reasons unsuitable extinguishing agents: Water with full jet

Special hazards arising from the substance or mixture
Can be released in case of fire:

 Nitrogen Oxides (NO_x)

Carbon Monoxide (CO)

Hydrogen Cyanide (HCN)

Advice for firefighters

Protective equipment: Wear breathing apparatus
 Wear full protective suit with self-contained breathing apparatus
 See section 8

Additional information Dispose of fire debris and contaminated firefighting water in accordance with official regulations.

Section 06 - Accidental Release Measures

Personal Precautions	Mount respiratory protective device. Wear protective equipment. Keep unprotected persons away.
Methods for cleaning up	Dispose contaminated material as waste according to item 13. Ensure adequate ventilation. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Transfer to a waste container. Keep the material damp and exposed to the air in a secure area (CO ₂ -formation!) until completely solidified. The waste can then be disposed of on an approved landfill or a special refuse dump. Ensure adequate ventilation. In the event of a large spill, treat spill area with decontamination solution. Preparation of decontamination solution: Prepare a mixture of 0.2 - 0.5% liquid detergent and 3 - 8% concentrated ammonium hydroxide in water (5 - 10% sodium carbonate may be substituted for the ammonium hydroxide).
Environmental Precautions	Do not allow product to reach sewage system or bodies of water.
Reference to other sections	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

Section 07 - Handling and Storage

Handling	Ensure good ventilation/exhaust at the workplace. Keep containers tightly sealed. Prevent formation of aerosols. Exhaust ventilation required during spraying or when material is being used at temperatures above 100 degrees F.
Information about protection against explosions and fires	Pay attention to the general rules of internal fire prevention.
Storage	Recommended ideal storage temperature range: 59–77°F. Product should not be stored below 400° or above 110°F. Store away from foodstuffs. Keep container tightly sealed.

Section 08 - Personal Protection and Exposure Controls

Information given is based on data obtained from this substance or from similar substances.

Protective equipment**Gloves**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. The following glove types are recommended: neoprene, nitrile rubber, PVC or butyl rubber. Thin, disposable latex gloves should be avoided for repeated or long-term handling of the material. Recommended thickness of the glove material: 5 - 6 mil. Selection of the glove material should be based on the consideration of penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Respirator

In case of brief exposure or low pollution, use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

Eye

Tightly sealed goggles.

Skin and Body

Protective work clothing

Exposure limits

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

26447-40-5 methylenediphenyl diisocyanate (MDI) Mixed Isomers

ACGIH TLV Short-term value: 0.05 mg/m³

NIOSH REL/CEILING Short-term value: 0.2 mg/m³

NIOSH REL/TWA Short-term value: 0.05 mg/m³

OSHA PEL Short-term value: 0.2 mg/m³

Additional information

The lists that were valid during the creation were used as basis.

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Gases fumes and aerosols should not be inhaled.

Section 09 - Physical and Chemical Properties

Form	Liquid
Color	Light to dark amber
Odor	Characteristic
Odor threshold	Not determined
pH	Not determined
Vapour pressure (mm hg)	Not determined
Density at 20°C (68°F)	1.09 g/cm ³ (9.096 lbs./gal)
Relative density	Not determined
Vapour density (air=1)	Not determined
Boiling point/range	Not determined
Melting point/range	Not determined
Solubility in water	Insoluble, Reacts
Organic solvents	0.00%
% Volatile (by weight)	Not determined
Evaporation rate	Not determined
Viscosity – dynamic at 20°C (68°F)	6500 mPas
Viscosity – kinematic	Not determined
Partition coefficient	Not determined
Flash point	> 200°C (> 392°F)
Flammability classification	Not applicable
Autoignition temperature	Product is not self-igniting
Decomposition temperature	Not determined
Oxidizing properties	Not applicable
Explosive properties	Product does not present an explosion hazard.
Explosion limits in air – Upper (g/m ³)	Not determined
Explosion limits in air – Lower (g/m ³)	Not determined
Solids content	100.00%
Other information	No further relevant information available.

Section 10 - Stability and Reactivity

Thermal decomposition/conditions to be avoided:	No decomposition if used according to specifications.
Possibility of hazardous reactions	Exothermic reaction with amines and alcohols Reacts with water to liberate CO ₂ gas which may build pressure in closed containers
Conditions to avoid	No further relevant information available.

Hazardous Decomposition and/or Carbon monoxide, Carbon dioxide, Formaldehyde.

Incompatible materials No further relevant information available.

Hazardous decomposition products By Fire and High Heat: Carbon Monoxide, Carbon Dioxide, Oxides of Nitrogen and traces of HCN.

Section 11 - Toxicological Information

Effects of acute exposure

Oral LD50 LD50/oral/rat = > 5000 mg/kg.

Inhalation LC50 LC50/inhalation/rat = 2240 mg/l

Dermal LD50 LD50/4 h/dermal/rabbit = > 5000 mg/kg.

STOT - Single Exposure None observed.

Eye Irritation Irritating effect.

Skin Irritation Irritant to skin and mucous membranes.

Sensitization Sensitization possible through inhalation.
Sensitization possible through skin contact.

Carcinogenic categories IARC (International Agency for Research on Cancer) – None of the ingredients listed.
NTP (National Toxicology Program) – None of the ingredients listed.

Additional toxicological information

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

Section 12 - Ecological Information

Aquatic Toxicity No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bio-accumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information

General notes This product is not miscible with water. Reacts with water at the interface producing CO₂ gas and forming a solid and insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by water-soluble solvents. Previous experience demonstrates that polyurea is inert and non-degradable.

Water hazard class 1 (self-assessment) Slightly hazardous for water.

Results of PBT and vPvB assessment

PBT Not applicable.

vPvB Not applicable.

Other adverse effects No further relevant information available.

Section 13 - Disposal Consideration

Waste treatment methods

Recommendation Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Uncleaned packaging

Recommendation Disposal must be made according to official regulations. Empty containers may only be disposed of after neutralizing any product remaining on the walls of the containers with a mixture of isopropanol, ammonia and water and removal of the warning labels. For preparation of decontamination solution, refer to section 6.

Section 14 - Transportation Information

UN Number

DOT, ADR, AND, IMDG, IATA Void

UN Proper Shipping Name

DOT, ADR, AND, IMDG, IATA Void

Transport Hazard Class(es)

DOT, ADR, AND, IMDG, IATA Class Void

Packing Group

DOT, ADR, IMDG, IATA Void

Environmental Hazards

Marine pollutant No

Special precautions for users Not applicable

Transport in bulk according to Annex II of MARPOL73/7 and the IBC Code Not applicable.

Transport/Additional information:

DOT

Hazardous substance Single containers less than 5,000 lbs are not regulated. Single containers with 5,000 lbs or more of 4,4' methylenediphenyl diisocyanate are regarded as class 9, NA3082, PG III.

UN "Model Regulation" -

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara

Section 355 (extremely hazardous substances)	None of the ingredients is listed.
Section 313 (specific toxic chemical listings)	None of the ingredients is listed.
TSCA (Toxic Substances Control Act)	All ingredients are listed.
Chemicals known to cause cancer	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for males	None of the ingredients is listed.
Chemicals known to cause developmental toxicity	None of the ingredients is listed.
Cancerogenity categories	
EPA (Environmental Protection Agency)	None of the ingredients is listed.
TLV (Threshold Limit Value established by ACGIH)	None of the ingredients is listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)	None of the ingredients is listed.
OSHA-Ca (Occupational Safety & Health Administration)	None of the ingredients is listed.
Product related hazard information	The product has been classified and marked in accordance with directives on hazardous materials.
Hazard Symbols	
Harmful	
Hazard-determining components of labelling	Methylenediphenyl diisocyanate (MDI) Mixed Isomers
Risk phrases	Harmful by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin contact. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrases

Keep locked up and out of the reach of children.

Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer).

Avoid contact with skin and eyes.

Wear suitable gloves.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Dispose of this material and its container to hazardous or special waste collection point.

In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Special labeling of certain preparations

Contains isocyanates. See information supplied by the manufacturer.

Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

Section 16 - Other Information

Abbreviations and acronyms

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO International Civil Aviation Organization

ICAO-TI Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG International Maritime Code for Dangerous Goods

DOT US Department of Transportation

IATA International Air Transport Association

ACGIH American Conference of Governmental Industrial Hygienists

NFPA National Fire Protection Association (USA)

HMIS Hazardous Materials Identification System (USA)

LC50 Lethal concentration, 50 percent

LD50 Lethal dose, 50 percent

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