

SAFETY DATA SHEET – RIGID GROUT B

SECTION 1. IDENTIFICATION

Product Identifier	Rigid Grout B
Other Means of Identification	Chemical grout
Recommended Use	Industrial use, professional use only
Restrictions on Use	None known
Supplier Identifier	Multiurethanes Ltd. 5245 Creekbank Rd, Mississauga, ON L4W 1N3
Emergency Telephone Number	1-800-663-6633

SECTION 2. HAZARD IDENTIFICATION

Classification	Acute Toxicity - Category 4 – Inhalation Skin Irritation - Category 2 Eye Irritation - Category 2B Respiratory Sensitization - Category 1 Skin Sensitization - Category 1 STOT SE - Category 3 STOT RE - Category 2 - Inhalation
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Label Elements
Hazard Pictograms



Signal Word Danger

Hazard Statements Causes skin/eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Precautionary Statements

Wear appropriate protective equipment.
Avoid breathing fume/mist/vapours.
Wash hands and exposed skin after handling.
IF ON SKIN: Wash with soap and water. Seek medical attention.
IF IN EYES: Rinse with water. Seek medical attention.
IF INHALED: Remove person to fresh air. Seek medical attention.

Other Hazards

Not available

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration	Common Names / Synonyms
Polymeric Diphenylmethane Diisocyanate	9016-87-9	100%	Diphenylmethanediisocyanate
4,4' Diphenylmethane Diisocyanate	101-68-8	35-45%	Diphenylmethanediisocyanate

Notes

Not available

SECTION 4. FIRST-AID MEASURES

Inhalation

Move to an area free from risk of further exposure.
Administer oxygen or artificial respiration as needed.
Seek medical attention.

Skin Contact

Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention.

Eye Contact

Rinse cautiously with lukewarm water for at least 15 minutes holding eyelids open. Seek medical attention.

Ingestion

Wash mouth out with water. Do not induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head positioned between legs to avoid breathing in

of vomit, rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.

Most Important Symptoms and Effects (Acute or Delayed)

Causes skin/eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure if inhaled.

Immediate Medical Attention and Special Treatment

Eyes - stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid as needed.
Skin - This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns.
Ingestion - Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of this compound.
Respiratory - Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from exposure to any diisocyanate.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use media suitable to the surrounding fire such as water spray, carbon dioxide, chemical foam and dry chemical.

Unsuitable Extinguishing Media

Not available

Specific Hazards Arising from the Product

Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO₂ formed). Use cold-water spray to cool fire-exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and hot diisocyanate can be vigorous.

Special Protective Equipment and Precautions for Firefighters

Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Avoid contact with product.
Decontaminate equipment and protective clothing prior to

reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Do not get in eyes or on skin. Do not breathe fume/mist/vapours. Use appropriate personal protection equipment (PPE). Evacuate danger area. Equip cleanup crew with proper protection. Isolate the area and prevent access. Remove ignition sources.

Methods for Containment and Cleaning Up

In the event of a minor spill or leak, use conventional absorbents. Contain the spill to prevent spread into drains, sewers, water supplies, or soil. In the event of a major spill or leak, released material may be pumped into closed, but not sealed, metal container for disposal. Process can generate heat.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe vapours, mists, or dusts. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent chronic overexposure from inhalation. This product can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning of this product. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. Do not seal if contamination is suspected.

Conditions for Safe Storage Store in a dry place.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters ACGIH Exposure Limit = 0.005 ppm TWA 0.051 mg/m³
OSHA Exposure Limit = 0.02 ppm Ceiling 0.20 mg/m³
Ceiling

Appropriate Engineering Controls Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. Ensure all national/local regulations are observed.

Individual Protection Measures Respiratory protection is required if the concentrations exceed exposure. NIOSH-approved respirators are recommended. A self-contained breathing apparatus should be used in emergency situations or instances where exposure levels are not known. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Impervious gloves must be worn when using this product. Wear as appropriate: Nitrile rubber; Polyvinylchloride; Butyl rubber; Neoprene. Wear chemically protective gloves (impervious), boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Chemical splash goggles must be worn when handling this material. A full face shield may also be necessary. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Dark brown to black liquid

Odour Slight musty

Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	<0°C (32°F)
Initial Boiling Point/ Boiling Range	208°C (406°F)
Flash Point	199°C (390°F)
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Upper/Lower Flammable/Explosive Limit	Not available
Vapour Pressure	<0.0001 mm Hg at 25 °C (77°F)
Vapour Density	Not available
Relative Density	Not available
Solubility in Water	Insoluble, reacts slowly with water to liberate carbon dioxide
Solubility in Other Liquids	Not available
Partition Coefficient, n-Octanol / Water	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	None under normal conditions.
Chemical Stability	Stable under recommended handling and storage conditions (refer to section 7).
Possibility of Hazardous Reactions	Hazardous polymerization may occur following contact with moisture, other materials that react with isocyanates or temperatures above 177°C (350°F).
Conditions to Avoid	None under normal conditions.
Incompatible Materials	Water, amines, strong bases, alcohols, copper alloys, aluminum.
Hazardous Decomposition Products	By high heat and fire: carbon monoxide, oxides of nitrogen, hydrogen cyanide, carbon dioxide, dense black smoke, isocyanate, isocyanic acid, other undetermined compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity	Not available
LD50 and LC50 Data	Oral LD50, rat = greater than 2,000 mg/kg Dermal LD50, rabbit = >10,000 mg/kg Inhalation LC50, rat = 490 mg/m ³ , vapor, 4 h
Skin Corrosion/Irritation	Irritation may occur.
Serious Eye Damage/Irritation	Irritation may occur.
Respiratory or Skin Sensitization	Irritation may occur.
Germ Cell Mutagenicity	Genetic Toxicity in Vitro: Bacterial – gene mutation assay: negative (Salmonella typhimurium, Metabolic Activation: with/without). Positive and negative results were reported. The use of certain solvents which rapidly hydrolyze diisocyanates is suspected of producing the

positive mutagenicity results. Genetic Toxicity in Vivo:
Micronucleus Assay: negative (Mouse)

Teratogenicity	Rat, Female, inhalation, gestation days 6-15, 6 hrs/day, NOAEL (teratogenicity): 12 mg/m ³ , NOAEL (maternal): 4 mg/m ³ - No Teratogenic effects observed at doses tested. Fetotoxicity seen only with maternal toxicity.
Carcinogenicity	Rate, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week: Exposure to a level of 6 mg/m ³ polymeric MDI was related to the occurrence of lung tumours. This level is significantly over the TLV for MDI.
Specific Target Organ Toxicity (Single Exposure)	Not available
Specific Target Organ Toxicity (Repeated Exposure)	90 days inhalation: NOAEL: 0.3 mg/m ³ , (Rat Male/Female, 18 hrs/day 5 days/week) Irritation to lungs and nasal cavity.
Reproductive Toxicity	Not available
Aspiration Hazard	Not available
Symptoms/Injuries After Inhalation	Irritation may occur.
Symptoms/Injuries After Skin Contact	Irritation may occur.
Symptoms/Injuries After Eye Contact	Irritation may occur.
Symptoms/Injuries After Ingestion	Irritation may occur.
Chronic Symptoms	Not available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	Acute and prolonged toxicity to fish - LC0: >1,000 mg/l (Zebra fish (Brachydanio rerio), 96 hrs); LC0: >3,000
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mg/l (Killifish (*Oryzias latipes*), 96 h)
 Acute toxicity to aquatic invertebrates - EC50: >1,000 mg/l (Water flea (*Daphnia magna*), 24 hrs)
 Toxicity to aquatic plants - NOEC: 1,640 mg/l, End Point: growth (Green algae (*Scenedesmus subspicatus*), 72 hrs)
 Toxicity to microorganisms - EC50: > 100 mg/l, (Activated sludge microorganisms, 3 hrs)

Persistence and Degradability 0%, exposure time 28 days.

Bioaccumulative Potential Rainbow trout, exposure time 112 d, <1 BCF

Mobility in Soil Not available

Other Adverse Effects Avoid release to the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods Dispose of material in accordance with all applicable federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	UN Proper Shipping Name	Transport Hazard Class	Packing Group
Not regulated	Not applicable	Not applicable	Not applicable	Not applicable

Special Precautions Not applicable

Environmental Hazards Refer to Section 12.

Transport in Bulk Not applicable

SECTION 15. REGULATORY INFORMATION

OHSA Status	This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.
TSCA Status	Components are listed on TSCA Inventory.
CERCLA Reportable Quantity	4,4' Diphenylmethane Diisocyanate (MDI), CAS # 101-68-8. Reportable Quantity: 5000 lbs.
SARA Title III	Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A) - None. Section 311/312 Hazard Categories - Acute Health Hazard, Chronic Health Hazard. Section 313 Toxic Chemicals (40 CFR 372.65) - Polymeric Diphenylmethane Diisocyanate (pMDI); 4,4' Diphenylmethane Diisocyanate (MDI)
RCRA Status	It is the responsibility of the product user to determine, at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.
WHMIS Rating	Acute Toxicity - Category 4 – Inhalation Skin Irritation - Category 2 Eye Irritation - Category 2B Respiratory Sensitization - Category 1 Skin Sensitization - Category 1 STOT SE - Category 3 STOT RE - Category 2 - Inhalation
NAERG Rating	156

SECTION 16. OTHER INFORMATION

Date of Latest Revision May 29, 2017