

SAFETY DATA SHEET

Section 1 - Chemical Product and Company Information



RigidSeal Technologies

3400 East Lafayette
Detroit, Michigan 48207 USA

www.rigidseal.com

Information Telephone: (313) 567-4820
Emergency Telephone: (703) 527-3887
CHEMTREC: (800) 424-9300

Product Code: M-0521

Product Name: NSF Trademark Grout

Product Use: Grout

Not recommended for: Non-Professional Use

Section 2 - Hazards Identification

GHS Ratings

Skin corrosion/irritation	2	Reversible adverse effects in dermal tissue, Draize score: $\geq 2.3 < 4.0$ or persistent inflammation
Serious eye damage/eye irritation	2B	Mild eye irritant: Subcategory 2B, Reversible in 7 days
Respiratory sensitization	1	Respiratory sensitizer
Skin sensitization	1	Skin sensitizer
Carcinogenicity	2	Limited evidence of human or animal carcinogenicity

GHS Hazards

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H320	Causes eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H351	Suspected of causing cancer.

GHS Precautions

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash contact area thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P285	In case of inadequate ventilation wear respiratory protection
P321	Specific treatment (see supplemental first aid instruction on this label)
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
P302+P352	IF ON SKIN: wash with plenty of water.
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P332+P313	IF skin irritation occurs: Get medical advice/attention.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P337+P313	IF eye irritation persists: Get medical advice/attention.
P342+P311	IF experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
P405	Store locked up

Signal Word: Danger**Acute Toxicity**

N/A

Conditions Aggravated

N/A

Chronic Effects

N/A

Section 3 - Composition / Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
4,4'-Methylenediphenyl diisocyanate	101-68-8	9.00%
Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	1.00% - 5.00%
mdi mixed isomers	26447-40-5	1.00% - 5.00%

Section 4 - First Aid Measures

INHALATION - Move affected person to fresh air, rest in a half upright position, and loosen clothing. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Seek medical advice after significant exposure.

EYE CONTACT - Flush with large amounts of water for at least 15 minutes. Lift eyelids occasionally. Get prompt medical attention.

SKIN - Wash thoroughly with soap and water immediately. Remove all contaminated clothing immediately. Seek medical advice if irritation persists.

INGESTION - Seek medical advice. The decision to induce vomiting or not must be made by a physician after careful consideration of all materials ingested. Risk of aspiration into lungs.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

Carbon Dioxide---Dry Chemical---Foam---Water Fog
Use water for cooling material stored in vicinity of fire.

Explosion Hazards

Vapors are heavier than air and may travel along the ground to an ignition source some distance from material handling point. Ignition sources include pilot lights, smoking, heaters, electric motors, sparks from electrical switches and static discharges.

CAUTION: Never use cutting torch on empty containers! Residual solvent vapor in empty container(s) may explode. Application to hot surfaces requires special precautions. During emergency conditions, overexposure to

decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain Medical Attention.

Hazardous Combustion Products

N/A

Recommended Fire Equipment

Use self-contained breathing apparatus with a full-face piece operated in a pressure-demand or other positive pressure mode. Wear protective clothing.

Section 6 - Accidental Release Measures

Non-emergency personnel: Evacuate and isolate the area and prevent access. Remove ignition sources. No flares, smoking or flames in hazard area. Notify management. Avoid breathing vapor or mist and put on protective equipment. Control source of the leak. Ventilate.

Emergency responders: See section 8 for any specialized clothing recommendations. Also reference the information for non-emergency personnel

Environmental precautions: Prevent further leakage or spillage if possible. Do not allow the material to spread to drains, sewers, water supplies, or soil. Contact APV (**330-773-8911**) for assistance and advice.

Small Spill: Stop leak if possible and move containers from the spill area. Water soluble: dilute with water and mop up. Water Insoluble: Cover spill area with a suitable absorbent inert material (Kitty Litter, Oil-Dri, etc.) and dispose of in an appropriate metal waste container. Dispose of material through a licensed waste disposal contractor.

Large Spill: Stop leak if possible and move containers from the spill area. Approach release from upwind. Contain spillage and with non-combustible absorbent material and place in appropriate disposal container according to local regulations. Dispose of material through a licensed waste disposal contractor. Report spill to appropriate governing agencies if applicable.

APV requires that CHEMTREC be immediately notified (**800-424-9300**) when this product is unintentionally released from its container during its course of distribution, regardless of the amount released. Distribution includes transportation, storage incidental to transportation, loading and unloading. Such notification must be immediate and made by the person who has knowledge of the release.

Section 7 - Handling and Storage

Precautions for Safe Handling

Keep away from food, drink and heat. Keep away from sources of ignition. No smoking. Do not breathe vapor. Avoid contact with skin and eyes. Never use pressure to empty. Take precautionary measures against static discharges.

Storage temperature-

Minimum: do not freeze
Maximum: 40°C (104°F)

Storage Period- See technical data sheet.

Section 8 - Exposure Controls / Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
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4,4'-Methylenediphenyl diisocyanate 101-68-8	Not Established	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	NIOSH: 0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.05 mg/m3 TWA 0.020 ppm Ceiling (10 min); 0.2 mg/m3 Ceiling (10 min)
Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9	Not Established	Not Established	Not Established
mdi mixed isomers 26447-40-5	Not Established	Not Established	Not Established

Engineering Controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other controls to keep air containment concentration below current applicable OSHA permissible exposure limit or ACGIH TLV limit, and volatiles below lower explosive limit. Heavy solvent vapors should be removed from the lower levels of area, and all ignition sources (non-explosion proof equipment) should be eliminated if flammable mixtures will be encountered. Remove decomposition products formed during welding or flame cutting of surfaces coated with this product. For baking finishes - vent vapors emitted on heating.

Environmental Controls: Emissions should comply with environmental protection legislation.

Individual Protection Measures:

Hygiene measures- Wash hands, forearms, etc. after handling chemical products, before eating, smoking, and using the lavatory, and the end of the work period. Use appropriate techniques when removing potentially contaminated clothing and wash before reusing. Know the locations of eyewash and safety showers.

Respiratory Protection- Provide adequate ventilation to keep exposure below permissible limits. If a risk assessment is deemed necessary, operator is to use a properly fitted, air purifying or supplied air respirator. Respirator selection must be based on known/ anticipated exposure levels, the hazards of the product, and the safe working limits of the respirator.

Skin and Body Protection- Wear chemical resistant gloves (nitrile) and paint suits when necessary, based on risk assessment. The most suitable glove must be chosen in consultation with the gloves supplier who can inform about the breakthrough time of the glove material. PPE for the body should be selected based on the risks of the task being performed and approved by a specialist. Appropriate footwear should also be approved.

Eye/Face Protection- Wear approved chemical safety goggles where exposure to vapor or contact with eyes is possible. Eye wash stations should also be made available. If inhalation hazard exists, a risk assessment will determine if a full face respirator may be required

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties:

Viscosity: Not determined % Weight Solids 85.07	pH: N/A % Volume Solids 82.25
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<p>VOC Wt/Gal (wet) 1.68</p> <p>Specific Gravity (SG) 1.353</p> <p>Odor Threshold: Not determined</p> <p>Boiling Point: 300°C</p> <p>LEL/UEL: N/A</p> <p>Evaporation Rate (nBuAc=1): Not determined</p> <p>Vapor Density: N/A</p> <p>Partition coefficient: Not determined</p>	<p>U.S. VOC Wt/Gal (wet) 1.68</p> <p>Odor: N/A</p> <p>Color: N/A</p> <p>Flash Point: >212°F, >100°C</p> <p>Autoignition Temperature: 240°C</p> <p>Vapor Pressure: N/A</p> <p>Freezing Point: Not determined</p>
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Section 10 - Stability and Reactivity

The following materials should be avoided in contact with the mixture

- Strong acids
- Oxidizing agents

Hazardous decomposition products

N/A

Section 11 - Toxicological Information

Mixture Toxicity

Inhalation Toxicity LC50: 4mg/L

LC₅₀ and LD₅₀ toxicity for this product are merely estimates and have yet to be determined. For individual component ecotoxicity, please refer to Section 12.

Possible Routes of Entry

N/A

Potential Target Organs

Eyes Respiratory System

Effects of Overexposure

Not Available

The following components are possible carcinogens

*Materials labeled a carcinogen in dust form are supplied in solution, thus eliminating the hazard.

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
None			N/A

Section 12 - Ecological Information

Mixture Ecotoxicity

Toxicity- Do not release into environment. May cause long term adverse effects.

Persistence and degradability- N/A

Bioaccumulative potential- N/A

Mobility in Soil- N/A

Component Ecotoxicity

mdi mixed isomers

24 Hr EC50 Daphnia magna: >1000 mg/L

96 Hr EC50 Skeletonema costatum: 3230 mg/L

Section 13 - Disposal Considerations

Dispose of in accordance with federal, state and local regulations. Controlled incineration is recommended for disposal of unused product. Prevent contamination of soil, drains and surface waters. Dispose of large containers to a licensed reconditioner. Dispose of small containers in compliance with local regulations.

Section 14 - Transport Information

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
ALL	NOT REGULATED FOR TRANSPORT			

Section 15 - Regulatory Information

The following chemicals are listed in California Title 8 CCR Sections as Hazardous Substances

13983-17-0 Wollastonite (Ca(SiO₃))
101-68-8 4,4'-Methylenediphenyl diisocyanate

The following chemicals are listed in California Title 8 CCR Sections 5200-5220 as Carcinogens.
N/A

The following chemicals are listed in California Title 8 CCR Section 5203 as Carcinogens
N/A

The following chemicals are listed in California Title 8 CCR Section 5209 as Carcinogens.
N/A

The following chemicals are listed in the EU-Substances of Very High Concern (2008/67/ED) (SVHC):
N/A

The following chemicals are listed in the EU-Restriction of the use of certain Hazardous Substances (2011/65/EU) (RoHS):
N/A

The following chemicals are included in the Global Automotive Declarable Substance List (GADSL)
N/A

The following substances are required for notification by the Japanese Enforcement Order of the Industrial Safety and Health Law (ISHL):
101-68-8 4,4'-Methylenediphenyl diisocyanate

The following chemicals are listed on the Massachusetts Right-to-Know Hazardous Substances List.
1317-65-3 Limestone
101-68-8 4,4'-Methylenediphenyl diisocyanate

The following chemicals are listed on the New Jersey Right-to-Know Hazardous Substances List.
9016-87-9 Isocyanic acid, polymethylenepolyphenylene ester
1317-65-3 Limestone
101-68-8 4,4'-Methylenediphenyl diisocyanate

The following chemicals are listed on the Pennsylvania Right-to-Know Hazardous Substances List.
1317-65-3 Limestone
101-68-8 4,4'-Methylenediphenyl diisocyanate

The following chemicals are listed by the State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
N/A

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) requires certain facilities manufacturing, processing, or otherwise using listed toxic chemicals to report their environmental releases of such chemicals annually. The following chemicals are listed:

9016-87-9 Isocyanic acid, polymethylenepolyphenylene ester 1 - 5%
101-68-8 4,4'-Methylenediphenyl diisocyanate 9%

The following chemicals are listed in EPCRA (SARA) Section 313: Persistent, Bioaccumulative, and Toxic Chemicals (PBT)

N/A

The following chemicals are listed under EPCRA (SARA) Section 313: Toxic Release Inventory (TRI)

N/A

Under Section 12(b) of the Toxic Substances Control Act (TSCA), exporters may need to notify the U.S. Environmental Protection Agency if they export or intend to export a product containing a chemical substance that is present on this list. The following substances are contained within this material:

Proprietary Polymer Proprietary Acrylic Blend

The following chemicals are listed as a *Hazardous Air Pollutant* under listed under the U.S. CAA (Clean Air Act)

101-68-8 4,4'-Methylenediphenyl diisocyanate

<u>Country</u>	<u>Regulation</u>	<u>All Components Listed</u>
USA	Toxic Substances and Control Act (TSCA)	Yes
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Canadian Domestic Substances List (DSL)	No
Canada	Canadian Non-Domestic Substances List (NSDL)	No
China	Inventory of Existing Chemical Substances Produced or Imported in China	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Europe	REACH Registered or Pre-Registered Substances and Intermediates	Yes
Japan	Japanese Inventory of Existing and New Chemical Substances (ENCS)	Yes
Japan	Japan Inventory of Industrial Safety and Health Law Substances (ISHL)	Yes
Korea	Korean Existing Chemical Inventory (KECI)	Yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Yes
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

EU Risk Phrases

Not Available

Safety Phrase

Not Available

Section 16 - Other Information

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

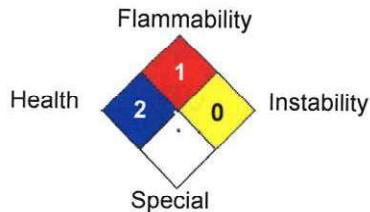
Hazardous Material Information System (HMIS)

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	G

HMIS & NFPA Hazard Rating Legend

- * = Chronic Health Hazard
- 0 = INSIGNIFICANT
- 1 = SLIGHT
- 2 = MODERATE
- 3 = HIGH

National Fire Protection Association (NFPA)



The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.