

SECTION 1: Identification and Company Details

Product Name: 1409 Wood Flooring Adhesive
Product Code: R1409
Manufacturer/ Supplier: Roberts Consolidated Industries, Inc.
Address: 300 Cross Plains Blvd.
 Dalton, GA 30721
Emergency Phone: (800) 424-9300 (24-hour Response / CHEMTREC)
Product Information: (706) 277-5294
Recommended Use: Adhesive

SECTION 2: Hazard(s) Identification

OSHA / HCS Status: This material is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture: RESPIRATORY SENSITIZATION – Category 1
 SKIN SENSITIZATION – Category 1

Signal Word: Danger

Hazard Statements: May cause an allergic skin reaction.
 May cause allergy or asthma symptoms or breathing difficulties if inhaled



Hazard Pictograms:

Precautionary Statements: Avoid breathing vapors. Wear eye protection, protective gloves.
 If on skin: Wash with plenty of soap and water.
 If inhaled: Remove person to fresh air and keep comfortable for breathing
 If skin irritation or rash occurs: Get medical advice/attention

Unknown acute toxicity: Not applicable

SECTION 3: Composition / Information on Ingredients

Name	Product Identifier (CAS No)	%	GHS – US Classification
Modified 4,4-Diphenylmethane Diisocyanate	101-68-8	1-5	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9	1-3	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
Silica, Amorphous Fused	14808-60-7	<1	Carc. 1A, H350 STOT RE 2, H373

Full text of hazard classes and H statements: See section 16

SECTION 4: First Aid Measures

Inhalation: Move victim to fresh air.
Skin Contact: Gently wash with plenty of soap and water
Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Symptoms/effects : Skin rash/inflammation.
Symptoms/effects after skin contact : Causes skin irritation.
Symptoms/effects after eye contact : Causes serious eye irritation

SECTION 5: Fire-Fighting Measures

Extinguishing Media: Water spray. Dry Powder. Foam. Carbon dioxide
Hazardous Combustion Products: This product is non—reactive under normal conditions of use, storage and transport.
Protection of Firefighters: Do not attempt to take action without suitable protective equipment. Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by fire fighters.

SECTION 6: Accidental Release Measures

General Measures: Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Absorb spillage to prevent material damage. Clean up any spills as soon as possible, using an absorbent material to collect it.
Personal Precautions: Avoid contact with skin and eyes; wear chemical protective clothing, eye protection and chemical resistant gloves.
Emergency Procedures: Ventilate spillage area. Do not breathe dust, fume, mist, spray, vapors. Avoid contact with skin and eyes. Avoid contact with skin, eyes and clothing. Do not breathe vapors.
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: exposure controls/ personal protection.
Environmental Precautions: Avoid release to the environment.
Methods of Clean-up: Take up liquid spill into absorbent material. Dispose of materials or solid residues at an authorized site. Refer to section 13 for more information.

SECTION 7: Handling and Storage

Precautions for safe handling: Ensure appropriate good ventilation of the work station is established prior to use to maintain exposure levels (airborne; particles, dust, fume, vapor, ect. Below exposure limits. Do not breathe dust, fume, mist, spray, vapors. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Storage: Store in a well-ventilated place. Keep Cool
Storage Temperature: 25C
Maximum Storage Period: 6 months

SECTION 8: Exposure Control / Personal Protection

Exposure Guidelines:

Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)

Not applicable

Calcium Carbonate (1317-65-3)

Not applicable

Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)

ACGIH ACGIH TWA (m/mg³) .025 mg/m³ (Respirable fraction)

Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)

ACGIH

ACGIH TWA ppm

0.005 ppm

Engineering Controls: Ensure appropriate good ventilation of the work station is established prior to use to maintain exposure levels (airborne; particulates, dust, fume, vapor, ect.) below exposure limits.

Environmental exposure

Controls: Avoid release to the environment

Personal Protective Equipment: Gloves. Safety glasses

Respiratory Protection – [in case of inadequate ventilation] wear respiratory protection

Skin Protection – Wear suitable protective clothing

Eye/Face Protection – Safety Glasses

SECTION 9: Physical and Chemical Properties

Appearance:	Liquid
Color:	Colorless to light yellow
Vapor Density:	Not determined
Odor:	Almost odorless
Relative Density:	Not determined
Odor Threshold:	Not available
Solubility(ies):	Insoluble in water
pH:	Not available
Partition Coefficient:	n-octanol/water; Not determined
Melting Point:	Not determined
Freezing Point:	Not determined
Auto-ignition Temperature:	Not determined
Flash Point:	> 200° C
Decomposition Temperature:	Not determined
Evaporation Rate:	Not determined
Viscosity:	80,000-120,000 cP
Flammability (Solid/Gas):	No data available
Specific Gravity:	1.6
Upper/Lower Flammability:	Not determined
VOC Content:	0.0 lb/gal
Vapor Pressure:	<0.00001 mm Hg @ 25° C (MDI)
Boiling Point:	No data available

SECTION 10: Stability and Reactivity

Chemical Stability:	Stable
Conditions to Avoid:	None under recommended storage and handling conditions (see section 7)
Materials to Avoid:	Water, amines, strong bases, and alcohols.
Hazardous Polymerization:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological Information

Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
LD50 oral rat	> 10000 mg/kg (Rat, Literature study)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Literature study)
ATE US (gases)	4500 ppmv/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust,mist)	1.5 mg/l/4h
Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)	
LD50 oral rat	> 7616 mg/kg (Equivalent or similar to OECD 401, Rat, Female, Read-across)
LD50 dermal rabbit	> 9400 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male/female, Read-across)
LC50 inhalation rat (mg/l)	0.49 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male/female, Read-across)
ATE US (gases)	4500 ppmv/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust,mist)	1.5 mg/l/4h
Calicum Carbonate (1317-65-3)	
LD50 oral rat	6450 mg/kg (rat, literature study)
ATE US (oral)	6450 mg/kg bodyweight

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified.

Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
IARC group	3 - Not classifiable
Silca, Amorphous Fused (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
STOT-single exposure	May cause respiratory irritation.
Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Silca, Amorphous Fused (14808-60-7)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard	Not classified
Viscosity, kinematic	No data available
Symptoms/ effects after inhalation:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/ effects after skin contact:	May cause an allergic skin reaction

SECTION 12: Ecological Information

Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment
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Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
LC50 other aquatic organisms 1	> 1000 mg/l (96 h, Literature study)
Calicum Carbonate (1317-65-3)	
LC50 fish 1	> 10000 mg/l (96 h, Oncorhynchus mykiss, Literature)
EC50 Daphnia 1	> 1000 mg/l (48 h, Daphnia magna, Literature)
Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)	
LC50 fish 1	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Read-across)
EC50 Daphnia 1	129.7 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 24 h, Daphnia magna, Static system, Fresh water, Read-across)

Persistence and degradability

Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
Persistence and degradability	Not readily biodegradable in water.
Calicum Carbonate (1317-65-3)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable (inorganic)
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Silca, Amorphous Fused (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable (inorganic)
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)	
Persistence and degradability	Not readily biodegradable in water.

Bio accumulative potential

Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
BCF fish 1	1 (Pisces, Literature study)
Log Pow	10.46 (Calculated, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Calicum Carbonate (1317-65-3)	
Bioaccumulative potential	Bioaccumulation: not applicable.
Silca, Amorphous Fused (14808-60-7)	
Bioaccumulative potential	No bioaccumulation data available.
Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)	
BCF fish 1	92 - 200 (OECD 305: Bioconcentration: Flow-Through Fish Test, 4 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, GLP)
Log Pow	5.22 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Mobility in soil:

Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
Log Koc	9.078 - 10.597 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Adsorbs into the soil.
Calicum Carbonate (1317-65-3)	
Ecology - soil	No (test)data on mobility of the substance available.
Silca, Amorphous Fused (14808-60-7)	
Ecology - soil	Low potential for mobility in soil.
Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)	
Surface tension	Data waiving
Ecology - soil	No (test)data on mobility of the substance available.

Degradation: Not determined

Aquatic Toxicity: Not determined

LC50 – 24 hour (Static): Greater than 500 mg/liter for Daphnia magna, Limaea stagnalis, and Zebra fish for polymeric MDI.

Disposal: Dispose of contents/ container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport Information

Road: DOT Proper Shipping Name: **Non-Regulated**
DOT Packing Group: N/A
DOT Label: N/A
UN Number: N/A

Ocean: Proper Shipping Name: **Non-Regulated**
Sea – IMO/IMDG Class: N/A
UN Number: N/A
Label: N/A
Packing Group: N/A
Marine Pollutant: N/A
EMS: N/A

Air: Proper Shipping Name: **Non-Regulated**
Air – ICAO/IATA Class: N/A
UN Number: N/A
Label: N/A
Sub Class: N/A
Packing Group: N/A
Pack Instr. Passenger: N/A
Pack Instr. Cargo: N/A

SECTION 15: Regulatory Information

Status on Substance Lists: All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Diphenylmethane Diisocyanate, isomers and homologues	CAS-No. 9016-87-9	1 - 3%
Modified 4,4-Diphenylmethane Diisocyanate	CAS-No. 101-68-8	1 - 5%

Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under Chemical Data Reporting Rule (formerly the Inventory Update Reporting Rule), i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 711).

Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	5000 lb

International regulations

CANADA WHMIS D-2B

Diphenylmethane Diisocyanate, isomers and homologues (9016-87-9)	
Listed on the Canadian DSL (Domestic Substances List)	

Calicum Carbonate (1317-65-3)
Listed on the Canadian NDSL (Non-Domestic Substances List)
Silca, Amorphous Fused (14808-60-7)
Listed on the Canadian DSL (Domestic Substances List)
Modified 4,4-Diphenylmethane Diisocyanate (101-68-8)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
No additional information available

National regulations

Silca, Amorphous Fused (14808-60-7)
Listed on IARC (International Agency for Research on Cancer)

California Proposition 65: Does not contain any listed chemical to the best of our knowledge.

Component	State or local regulations
Calicum Carbonate(1317-65-3)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Silca, Amorphous Fused(14808-60-7)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Diphenylmethane Diisocyanate, isomers and homologues(9016-87-9)	U.S. - New Jersey - Right to Know Hazardous Substance List
Modified 4,4-Diphenylmethane Diisocyanate(101-68-8)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other Information

Full text of H-statements:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H350	May cause cancer.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

HMIS: H = 2, F = 1, R = 0 (* CHRONIC) Personal Protection = B.

The information herein is given in good faith, but no warranty expressed or implied is made. Roberts urges users of this product to evaluate its suitability and compliance with local regulations as Roberts cannot foresee the final use of the product, nor the final location of usage

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