

CanSeal JF - Part A

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SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name (as labeled):	CanSeal JF - Part A
Synonyms:	N/A
CAS No:	Mixture
1.2 Product Use:	Rapid Curing, Semi-rigid PolyUrea control joint filler
1.3 Company Name:	Formex Supply
Company Address:	1175 Frances Street
Company Address Cont:	London, ON N5W 2L9
Business Phone:	1-800-265-1075
Website:	formexsupply.com
1.4 Emergency Telephone Number:	ChemTrec 1-800-262-8200

Date of Last Revision:	October 3, 2016
Date of Current Revision:	May 8, 2023

SECTION 2 – HAZARDS IDENTIFICATION

US DOT Symbols: Not Regulated



EU and GHS Symbols:

Signal Word: Danger

GHS Ratings:

Inhalation Toxicity	Acute Tox. 4	Gases>2500+<=5000ppm, Vapors>10+<=20mg/l, Dusts&mists>1+<=5mg/l
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation.
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days.
Respiratory sensitizer	1	Respiratory sensitizer.
Skin sensitizer	1	Skin sensitizer.
Carcinogen	2	Limited evidence of human or animal carcinogenicity.

GHS Hazards

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.
H351	Suspected of causing cancer.

GHS Precautions

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- 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 thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 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.
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 P321 Specific treatment (see Section 4 of the SDS).
 P362 Take off contaminated clothing and wash before reuse.
 P363 Wash contaminated clothing before reuse.
 P302+P352 IF ON SKIN: Wash with soap and water.
 P304+P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
 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 continuously 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 a rash occurs: Get medical advice/attention.
 P337+P313 Get medical advice/attention.
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 P405 Store locked up.
 P501 Dispose of contents/container according to Section 13 of the SDS.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	WT%	CAS No.
Polyurethane Prepolymer	40-70%	
4,4'-Diphenylmethane Diisocyanate (MDI)	10-30%	101-68-8
Diphenylmethane Diisocyanate (MDI) Mixed Isomers	< 35%	26447-40-5
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).		

Note: All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

SECTION 4 – FIRST AID MEASURES

Inhalation:	Remove to fresh air if effects occur. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Consult a physician or transport to a medical facility.
Eye Contact:	Immediately flush eyes with large quantities of water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.
Skin Contact:	Wash immediately and thoroughly with soap and flowing water. Remove contaminated clothing while washing. Seek medical attention if irritation persists. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water.
Ingestion:	If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.
Notes to Physician:	No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Cholinesterase inhibition has been noted in human exposure but is not of benefit in determining exposure and is not correlated with signs of exposure. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point: 230 C (446 F)

Flammable Properties: Product is not considered a fire hazard, but will burn if ignited.
NFPA Flammability Class: III B (Combustible liquid).

Suitable Extinguishing Media: Carbon dioxide, dry chemical, water fog or fine spray. Alcohol resistant foams are preferred, general purpose synthetic foams or protein foams may function, but will not be as effective.

Unsuitable Extinguishing Media: Do not use direct water stream, as it may spread fire.

Unusual Fire and Explosion Hazards: Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.



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Products of Combustion: Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, ammonia, nitrogen oxides, isocyanates, hydrogen cyanide and other unidentified toxic and/or irritating compounds.

Fire Fighting: Stay upwind and keep people away. Isolate fire and deny unnecessary entry. Keep out of low areas where gases (fumes) can accumulate. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out. Contain fire water run-off if possible, as it may cause environmental damage. Review section 6 and section 12 of this SDS.

Protection of Firefighters: Wear positive pressure self-contained breathing apparatus (SCBA) and approved protective clothing (helmet, coat, trousers, boots and gloves). If contact is likely, use full chemical resistant fire fighting clothing with SCBA.

SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

Personal Precautions: Put on appropriate personal protective equipment (see section 8).

Environmental Precautions: Prevent spilled material from contact with soil, drains and sewers.

Methods for Containment: Contain by diking with sand, earth or other suitable material.

Methods for Clean-up: Absorb spill with an inert material, use non-sparking tools to place into labeled waste container for disposal.

SECTION 7 - HANDLING AND STORAGE

Handling: Wear appropriate personal protective equipment (see section 8). Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not ingest. Avoid prolonged or repeated contact with skin. May cause allergic skin reaction, persons with a history of skin sensitization should not be employed in any process in which this product is used. Wash thoroughly with soap and water after handling. Do not handle or store near flame, heat or strong oxidants. Keep away from sources of ignition and hot metal surfaces.

Storage: Store original unopened containers in a sheltered area between 60°F and 80°F (15°C and 27°C) at atmospheric pressure. Do not store in direct sunlight. Keep containers closed when not in use.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure Parameters:

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Polyurethane Prepolymer	Not Established	Not Established	Not Established

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4,4'-Diphenylmethane Diisocyanate (MDI) 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/m ³ TWA 0.020 ppm Ceiling (10 min); 0.2 mg/m ³ Ceiling (10 min)
Diphenylmethane Diisocyanate (MDI) Mixed Isomers 26447-40-5	Not Established	Not Established	Not Established

Engineering Controls: General mechanical ventilation is sufficient for most conditions. Control airborne levels below the exposure guidelines, if established.
Local exhaust ventilation may be necessary for some operations.

General Hygiene Considerations: Wash thoroughly after handling and before eating, drinking or smoking.

Eye/face Protection: Use chemical safety glasses, splash-proof eye goggles or goggles with full faceshield.

Skin Protection: Use neoprene, nitrile/butadiene rubber or other impermeable chemical resistant gloves to prevent skin irritation. If potential for skin contact is present, wear impervious, long-sleeved, body covering clothing and rubber boots.

Respiratory Protection: If exposure may or does exceed occupational exposure limits, respiratory irritation is experienced, or during spray application, use a properly fitted MSHA/NIOSH approved respirator fitted with organic vapor cartridges and particulate pre-filters. If the respirator is the sole means of protection, use a full-face supplied air respirator. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use an approved positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). If sanding or grinding on cured material, use above respirator fitted with HEPA filters or a dust mask.

Contaminated Gear: Remove contaminated clothing and shoes while washing. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance (Physical State and Color): Clear to pale yellow

Odor: Mild

Odor Threshold: No data available

pH: No data available

Melting/Freezing Point: No data available

Boiling Point: Not data available

Flash Point: 446°F (230°C)

Evaporation Rate: No data available

Flammability (Solid; Gas): No data available

Upper/Lower Flammability or Explosion Limits: No data available

Vapor Pressure (mm Hg @ 20°C (68° F): No data available

Vapor Density: No data available

Relative Density: No data available

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Specific Gravity: 1.0 – 1.2
Solubility in Water: No data available
Weight per Gallon: No data available
Partition Coefficient (n-octanol/water): No data available
Auto-Ignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
9.2 Other Information: No data available

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions (see Section 7).
Conditions to Avoid: Avoid temperatures above 450 deg F (230 deg C), potential violent decomposition may occur. Avoid contact with water, as material reacts with water, releasing carbon dioxide which can cause rapid pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction.

Incompatible Materials: Strong acids, bases, or oxidizing agents. Avoid unintended contact with amines, alcohols, water, moist air and metals such as aluminum, brass, copper, tin, zinc and galvanized metals.

Products of Combustion: Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, ammonia, nitrogen oxides, isocyanates, hydrogen cyanide and other unidentified toxic and/or irritating compounds.

Hazardous polymerization will not occur.

SECTION 11 – TOXICOLOGY INFORMATION

Mixture Toxicity:

Inhalation Toxicity LC50: > 1mg/L

Component Toxicity Likely Routes of Exposure:

No data found

Target Organs:

May cause damage to the following organs:

Eyes Respiratory System

Effects of Overexposure:

Carcinogenicity: Rats have been exposed for their lifetime to respirable aerosol droplets of MDI/polymeric MDI which resulted in chronic pulmonary irritation at high concentrations. Only at the top level (6 mg/m³), there was a significant incidence of a benign tumor of the lung (adenoma) and one malignant tumor (adenocarcinoma). There were no lung tumors at 1 mg/m³ and no effects at 0.2 mg/m³. Overall, the tumor incidence, both benign and malignant, and the number of animals with the tumors were not different from controls. The increased incidence of lung tumors is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung, which occurred throughout the study. Tumors occurred concurrently with respiratory irritation and lung injury. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumor formation



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will occur. Current exposure guidelines (see section 8) are expected to protect against these effects reported for MDI.

CAS Number	Description	% Weight	Carcinogen Rating
26447-40-5	Diphenylmethane Diisocyanate (MDI) Mixed Isomers	<35%	Diphenylmethane Diisocyanate (MDI) Mixed Isomers: IARC Group 3 (not classifiable as to human carcinogenicity)

SECTION 12 – ECOLOGICAL INFORMATION

Component Ecotoxicity

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Dispose of in accordance with federal, state and local regulations. The preferred method for disposal of uncontaminated product is by recycling, reclaiming, incineration or other thermal destruction device using a licensed and permitted waste disposal contractor.

SECTION 14 - TRANSPORTATION INFORMATION

14.1 U.S. Department of Transportation (DOT) Shipping Regulations:

This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

UN Identification Number: Not Regulated
Proper Shipping Name: None
Hazard Class Number and Description: None
Packing Group: None
DOT Label(s) Required: None
North American Emergency Response Guidebook Number: None

14.2 Environmental Hazards:

Marine Pollutant: The components of this product are designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.3 Special Precaution for User:

None

14.4 International Air Transport Association

Shipping Information (IATA):

This product is considered as dangerous goods.

14.5 International Maritime Organization

Shipping Information (IMO):

UN Identification Number: Not regulated
Proper Shipping Name: None
Hazard Class Number and Description: None
Packing Group: None
EMS-No: None

SECTION 15 – REGULATORY INFORMATION

USA Federal: This SDS has been prepared in compliance with the Occupational Safety and Health Act (OSHA)

Hazard Communication Standard (29 CFR 1910.1200). This product is considered to be a hazardous chemical under that standard. The specific chemical identity and/or exact percentage of any proprietary ingredient(s) may be withheld as a trade secret, pursuant to the standard.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): To the best of our knowledge, this product contains the following chemicals which are known to the State of California to cause cancer or reproductive toxicity at levels which require warning under this statute:

- None

Massachusetts Right to Know: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

26447-40-5 Diphenylmethane Diisocyanate (MDI) Mixed Isomers < 35 %

101-68-8 4,4'-Diphenylmethane Diisocyanate (MDI) 10 to 30 %

New Jersey Right to Know: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

26447-40-5 Diphenylmethane Diisocyanate (MDI) Mixed Isomers < 35 %

Pennsylvania Right to Know: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

101-68-8 4,4'-Diphenylmethane Diisocyanate (MDI) 10 to 30 %

USA Resource Conservation and Recovery Act (40 CFR 261): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

- None

USA Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) - section 302 Extremely Hazardous Substances Threshold Planning Quantities (TPQs): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

- None

USA Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) - section 302 Hazardous Substances Reportable Quantities (RQs): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

101-68-8 4,4'-Diphenylmethane Diisocyanate (MDI) 10 to 30 %

USA Toxic Substances Control Act (TSCA) - section 12(b): To the best of our knowledge, this product contains the following chemicals above the de minimus concentration(s) which requires notification to the Environmental Protection Agency (EPA) per 40 CFR 707, subpart D, if any person intends to export:

- None

Country	Regulation	All Components Listed
Australia	Australian inventory of Chemical Substances (AICS)	Yes
Canada	Canada Domestic Substance List	Yes
Canada	Canada Non-Domestic Substance List (NDSL)	No
China	China Inventory of Existing Chemical Substances	Yes
EU	EU REACH List of Registered Intermediates	No
EU	EU REACH List of Pre-Registered Substances	No
EU	EU REACH List of Registered Substances	No
Japan	Japanese Existing and New Chemical Substance List	Yes
South Korea	South Korea Existing Chemicals Inventory	Yes
Philippines	Philippines Inventory of Chemicals and Chemical	No
USA	USA TSCA Inventory List Section 8(b)	Yes

SECTION 16 – OTHER INFORMATION

Date of Printing: July 1, 2018

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. SpecChem assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, SpecChem assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET

CanSeal JF - Part B

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SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name (as labeled):	CanSeal JF - Part B
Synonyms:	N/A
CAS No:	Mixture
1.2 Product Use:	Rapid Curing, Semi-rigid PolyUrea control joint filler
1.3 Company Name:	Formex Supply
Company Address:	1175 Frances Street
Company Address Cont:	London, ON N5W 2L9
Business Phone:	1-800-265-1075
Website:	formexsupply.com
1.4 Emergency Telephone Number:	ChemTrec 1-800-262-8200

Date of Last Revision:	October 3, 2016
Date of Current Revision:	July 1, 2018

SECTION 2 – HAZARDS IDENTIFICATION

US DOT Symbols: Not Regulated



EU and GHS Symbols:

Signal Word: Danger

GHS Ratings:

Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days.
Reproductive Toxin	1B	Presumed, Based on experimental animals.

GHS Hazards

H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child

GHS Precautions

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P305+P351+P338	IF IN EYES: Rinse continuously 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.
P337+P313	Get medical advice/attention.
P405	Store locked up.

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P501 Dispose of contents/container according to Section 13 of the SDS.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight Concentration %
Polyether Polyol		15 – 40%
Diethyltoluenediamine	68479-98-1	< 10%
Amine-based Polyol		< 10%
Titanium Dioxide	13463-67-7	< 5%
N-Butyl-2-(1-ethylpentyl)-1,3-oxazolidine	165101-57-5	< 5%
Polyether Polyol		< 2%
Carbon Black	1333-86-4	< 1%
Amorphous Fumed Silica	67762-90-7	< 1%
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).		

Note: All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

SECTION 4 – FIRST AID MEASURES

Inhalation: Remove to fresh air if effects occur. Consult a physician.
 Eye Contact: Flush with large quantities of water for at least 15 minutes. Consult a physician.
 Skin Contact: Wash thoroughly with soap and flowing water.
 Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.
 Notes to Physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point: >100 C (>212 F)
 Flammable Properties: Product is not considered a fire hazard, but will burn if ignited.
 NFPA Flammability Class: Class III A liquids are combustible liquids that have a flash point > 140 deg F (60 deg C), but < 200 deg F (93 deg C). Class III B liquids are combustible liquids that have a flash point >200 deg F.
 Suitable Extinguishing Media: Carbon dioxide, dry chemical, water fog or fine spray. Alcohol resistant foams are preferred, general purpose synthetic foams or protein foams may function, but will not be as effective.
 Unsuitable Extinguishing Media: Do not use direct water stream, as it may spread fire.



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Products of Combustion: Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, ammonia, nitrogen oxides and other unidentified toxic and/or irritating compounds.

Fire Fighting: Stay upwind and keep people away. Isolate fire and deny unnecessary entry. Keep out of low areas where gases (fumes) can accumulate. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out. Contain fire water run-off if possible, as it may cause environmental damage. Review section 6 and section 12 of this SDS.

Protection of Firefighters: Wear positive pressure self-contained breathing apparatus (SCBA) and approved protective clothing (helmet, coat, trousers, boots and gloves). If contact is likely, use full chemical resistant fire fighting clothing with SCBA.

SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

Personal Precautions: Put on appropriate personal protective equipment (see section 8).

Environmental Precautions: Prevent spilled material from contact with soil, drains and sewers.

Methods for Containment: Contain by diking with sand, earth or other suitable material.

Methods for Clean-up: Absorb spill with an inert material, use non-sparking tools to place into labeled waste container for disposal.

SECTION 7 - HANDLING AND STORAGE

Handling: Wear appropriate personal protective equipment (see section 8). Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not ingest. Avoid prolonged or repeated contact with skin. May cause allergic skin reaction, persons with a history of skin sensitization should not be employed in any process in which this product is used. Wash thoroughly with soap and water after handling. Do not handle or store near flame, heat or strong oxidants. Keep away from sources of ignition and hot metal surfaces.

Storage: Store original unopened containers in a sheltered area between 60°F and 80°F (15°C and 27°C) at atmospheric pressure. Do not store in direct sunlight. Keep containers closed when not in use.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure Parameters:

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Polyether Polyol	Not Established	Not Established	Not Established
Polyether Polyol	Not Established	Not Established	Not Established
Diethyltoluenediamine 68479-98-1	Not Established	Not Established	Not Established
Amine-based Polyol	Not Established	Not Established	Not Established
Titanium Dioxide 13463-67-7	15 mg/m ³ TWA (total dust)	10 mg/m ³ TWA	Not Established



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N-Butyl-2-(1-ethylpentyl)-1,3-oxazolidine 165101-57-5	Not Established	Not Established	Not Established
Polyether Polyol	Not Established	Not Established	Not Established
Carbon Black 1333-86-4	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable fraction)	NIOSH: 3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)
Amorphous Fumed Silica 67762-90-7	Not Established	Not Established	Not Established

Engineering Controls: General mechanical ventilation is sufficient for most conditions. Control airborne levels below the exposure guidelines, if established.
Local exhaust ventilation may be necessary for some operations.
General Hygiene Considerations: Wash thoroughly after handling and before eating, drinking or smoking.
Eye/face Protection: Use chemical safety glasses, splash-proof eye goggles or goggles with full faceshield.
Skin Protection: Use nitrile or other impermeable chemical resistant gloves to prevent skin irritation. If potential for skin contact is present, wear impervious, long-sleeved, body covering clothing and rubber boots.
Respiratory Protection: Respiratory protection should not be needed. If exposure may or does exceed occupational exposure limits, respiratory irritation is experienced, or during spray application, use a properly fitted MSHA/NIOSH approved respirator fitted with organic vapor cartridges. In addition, spray application may require the use of paint pre-filters. If the respirator is the sole means of protection, use a full-face supplied air respirator. If sanding or grinding on cured material, use above respirator fitted with HEPA filters or a dust mask.
Contaminated Gear: Remove contaminated clothing and shoes while washing. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance (Physical State and Color): Product color varies

Odor: Amonia-like

Odor Threshold: No data available

pH: No data available

Melting/Freezing Point: No data available

Boiling Point: 260°F (260°C)

Flash Point: 212°F (100°C)

Evaporation Rate: No data available

Flammability (Solid; Gas): No data available

Upper/Lower Flammability or Explosion Limits: No data available

Vapor Pressure (mm Hg @ 20°C (68° F): No data available



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Vapor Density: No data available
Relative Density: No data available
Specific Gravity: 0.9 -1.1
Solubility in Water: No data available
Weight per Gallon: No data available
Partition Coefficient (n-octanol/water): No data available
Auto-Ignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
9.2 Other Information: No data available

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions (see Section 7).
Conditions to Avoid: Elevated temperatures may cause product to decompose.
Incompatible Materials: Strong acids, bases, or oxidizing agents. Avoid unintended contact with isocyanates and/or epoxies.
Products of Combustion: Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, ammonia, nitrogen oxides and other unidentified toxic and/or irritating compounds.
Hazardous polymerization will not occur.

SECTION 11 – TOXICOLOGY INFORMATION

Mixture Toxicity:

Oral Toxicity LD50: 3,225mg/kg

Component Toxicity:

68479-98-1 Diethyltoluenediamine
Oral LD50: 485 mg/kg (Rat) Dermal LD50: 700 mg/kg (Rabbit)

Likely Routes of Exposure:

No data found

Target Organs:

May cause damage to the following organs:
Eyes Respiratory System

Effects of Overexposure:

Carcinogenicity: Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2b) through inhalation (not ingestion), based on lifetime inhalation studies of rats. The IARC's findings were consistent with the massive accumulation of fine dust particles in the rat's lung (which overwhelm the natural lung clearance mechanisms, causing lung overloading) and consequential pulmonary overload and inflammation that causes lung cancer. In further studies, these tumors were found to occur only under particle overload conditions in a uniquely sensitive species, the rat, and have little or no relevance for humans. Epidemiology studies on more than 20,000 workers do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. If present in this product, the titanium dioxide is in a "wet out" form and does not pose an inhalation hazard.

Carcinogenicity: This product may contain carbon black, a substance that has been listed by OSHA as a carcinogen to humans when inhaled. If present in this product, it is pre-dispersed in a liquid and not



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available as a dust. Under normal use conditions it would not be considered a hazard. IARC characterized carbon black as a possible human carcinogen (Group 2B) and concluded that there is sufficient evidence in experimental animals for the carcinogenicity of inhaled carbon black dust and inadequate evidence of carcinogenicity in humans. The IARC's findings were consistent with the massive accumulation of fine dust particles in the lung which overwhelm the natural lung clearance mechanisms, known as "lung overload" phenomenon, rather than from a specific chemical effect from the carbon black in the lung. NIOSH recommends that only carbon blacks with a PAH level greater than 0.1% be considered potential occupational carcinogens.

CAS Number	Description	% Weight	Carcinogen Rating
13463-67-7	Titanium Dioxide	< 5%	Titanium Dioxide: NIOSH: potential occupational carcinogen IARC: Possible human carcinogen OSHA: listed
1333-86-4	Carbon Black	< 1%	Carbon Black: NIOSH: potential occupational carcinogen IARC: Possible human carcinogen OSHA: listed

SECTION 12 – ECOLOGICAL INFORMATION

Component Ecotoxicity

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Dispose of in accordance with federal, state and local regulations. The preferred method for disposal of uncontaminated product is by recycling, reclaiming, incineration or other thermal destruction device using a licensed and permitted waste disposal contractor.

SECTION 14 - TRANSPORTATION INFORMATION

14.1 U.S. Department of Transportation (DOT) Shipping Regulations:

This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

UN Identification Number:	Not Regulated
Proper Shipping Name:	None
Hazard Class Number and Description:	None
Packing Group:	None
DOT Label(s) Required:	None
North American Emergency Response Guidebook Number:	None

14.2 Environmental Hazards:

Marine Pollutant: The components of this product are designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).



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14.3 Special Precaution for User:	None
14.4 International Air Transport Association Shipping Information (IATA):	This product is considered as dangerous goods.
14.5 International Maritime Organization Shipping Information (IMO):	
UN Identification Number:	Not regulated
Proper Shipping Name:	None
Hazard Class Number and Description:	None
Packing Group:	None
EMS-No:	None

SECTION 15 – REGULATORY INFORMATION

USA Federal: This SDS has been prepared in compliance with the Occupational Safety and Health Act (OSHA) Hazard Communication Standard (29 CFR 1910.1200). This product is considered to be a hazardous chemical under that standard. The specific chemical identity and/or exact percentage of any proprietary ingredient(s) may be withheld as a trade secret, pursuant to the standard.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): To the best of our knowledge, this product contains the following chemicals which are known to the State of California to cause cancer or reproductive toxicity at levels which require warning under this statute:

1333-86-4 Carbon Black < 1 %
13463-67-7 Titanium Dioxide < 5 %

Massachusetts Right to Know: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

1333-86-4 Carbon Black < 1 %
13463-67-7 Titanium Dioxide < 5 %

New Jersey Right to Know: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

1333-86-4 Carbon Black < 1 %
13463-67-7 Titanium Dioxide < 5 %

Pennsylvania Right to Know: To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

1333-86-4 Carbon Black < 1 %
13463-67-7 Titanium Dioxide < 5 %

USA Resource Conservation and Recovery Act (40 CFR 261): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

- None

USA Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) - section 302 Extremely Hazardous Substances Threshold Planning Quantities (TPQs): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

- None



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USA Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) - section 302 Hazardous Substances Reportable Quantities (RQs): To the best of our knowledge, this product contains the following chemicals at levels which require reporting under this statute:

- None

USA Toxic Substances Control Act (TSCA) - section 12(b): To the best of our knowledge, this product contains the following chemicals above the de minimus concentration(s) which requires notification to the Environmental Protection Agency (EPA) per 40 CFR 707, subpart D, if any person intends to export: 68479-98-1 Diethyltoluenediamine 5 to 10 %

Country	Regulation	All Components Listed
Australia	Australian inventory of Chemical Substances (AICS)	No
Canada	Canada Domestic Substance List	No
Canada	Canada Non-Domestic Substance List (NDSL)	No
China	China Inventory of Existing Chemical Substances	Yes
EU	EU REACH List of Registered Intermediates	No
EU	EU REACH List of Pre-Registered Substances	Yes
EU	EU REACH List of Registered Substances	No
Japan	Japanese Existing and New Chemical Substance List	No
South Korea	South Korea Existing Chemicals Inventory	No
Philippines	Philippines Inventory of Chemicals and Chemical	No
USA	USA TSCA Inventory List Section 8(b)	Yes

SECTION 16 – OTHER INFORMATION

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. SpecChem assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, SpecChem assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET