

MATERIAL SAFETY DATA SHEET (OSHA 29 CFR 1910.1200)

Product: 10 Minute Concrete Mender (Component A-ISO)

SECTION 1: MANUFACTURER'S NAME

Roadware Incorporated
381 Bridgepoint Way
South Saint Paul, MN 55075
651-457-6122 phone



Emergency Telephone Number: CHEM-TEL 800-255-3924

Date Prepared: December 29, 2011 **Date Revised:** December 29, 2011

SECTION 2: PRODUCT INFORMATION

Product Name

10 Minute Concrete Mender (Component A-ISO)

Code#

JET-2/JET-25/JET-28/JET-4/JET-45

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS No.	OSHA TWA	ACGIH Exposure Limits	Weight %
4,4-Diphenylmethane-diisocyanate	101-68-8	None	0.005 ppm	40-60%
Aromatic Hydrocarbon	64742-94-5	None	None	20-30%
Napthalene	91-20-3	10 ppm 50mg/m3	10 ppm 15 ppm STEL	1-5%

SECTION 4: HAZARDS IDENTIFICATION

Physical State Liquid
Odor Slightly Musty
OSHA/HCS Status This material is classified as hazardous under OSHA Hazard Communications Standard (20 CFR 1910.1200)

Emergency Overview:

WARNING: This material, when combined with 10 Minute Concrete Mender Side B, will react within the mixing process in seconds. Any exposure to individual components will be minimal due to the polymer locking reaction between part A and part B. Material in pre-packaged cartridges is self-mixing and is applied directly to the repair area in a semi-reacted state. Exposure under these conditions is generally below measurable amounts. When pot-mixing these materials, adequate ventilation should be provided. Do not pot-mix in enclosed areas. A slight odor is generated within the reaction process. This is caused by a trace amount of naphthalene within the materials. Ventilate enclosed areas to dissipate.

WARNING: Harmful by inhalation. Irritating to eyes and respiratory system. May cause sensitization by inhalation and skin contact. This product is a respiratory irritant and potential respiratory sensitizer. Repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. A hyper-reactive response to even minimal concentrations of diisocyanate may develop in sensitized persons. The onset of the respiratory symptoms may be delayed for several hours after exposure.

WARNING: Reacts slowly with water to produce carbon dioxide which may rupture closed containers. This reaction accelerates at higher temperatures.

SECTION 5: FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin Contact: After contact with skin, wash immediately with plenty of soap and water. Get medical attention if irritation develops. Wash clothing before reuse. Clean shoes thoroughly before reuse. An MDI study has demonstrated that a polyglycol based skin cleanser or corn oil may be more effective than soap and water.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, oxygen should be administered by qualified personnel.

Ingestion: Get medical attention immediately. Wash out mouth with water. Move exposed person to fresh air. Do Not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Notes to Physician: Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

SECTION 6: FIRE FIGHTING MEASURES

Flash point: 145Q F. Flashpoint Method: PMCC

Products of combustion: Combustion products may include: carbon oxides (CO, CO₂) nitrogen oxides (NO, NO₂ ...) hydrocarbons and HCN

Extinguishing media: *Suitable:* Use an extinguishing agent suitable for the surrounding fire. *Not Suitable:* None known.

Special exposure hazards: In a fire or if heated, a pressure increase will occur and the container may burst. No specific hazard.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.

Special remarkson explosion hazards: Due to reaction with water producing CO₂ gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Containers may burst if overheated.

SECTION 7: ACCIDENTAL RELEASE MEASURES

Personal protection: Immediately contact emergency personnel. Evacuate the area. Keep upwind to avoid inhalation of vapors. Clean-up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including respiratory protection. Use suitable protective equipment (see section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up: Contain and adsorb large spillages onto an inert, non-flammable adsorbent carrier (such as earth or sand). Shovel into open-top drums or plastic bags for further decontamination if necessary. Wash the spillage area clean with liquid decontaminant. Test atmosphere for MDI. Neutralize small spillages with decontaminant. Remove and properly dispose of residues (see section 13). Notify applicable government authorities if release is reportable. The CERCLA for 4,4-MDI is 5,000 lbs (see CERCLA information in section 15).

SECTION 8: HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment (see section 9). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material. Keep tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage: Keep container in a cool, well-ventilated area. Keep container tightly closed. Keep away from moisture. Due to reaction with water producing CO₂ gas, a hazardous build-up of pressure result if contaminated containers are resealed. Do not reseal contaminated containers. Uncontaminated containers, free of moisture, may be resealed only after placing under a nitrogen blanket. Do not store in containers made of copper, copper alloys or galvanized surfaces.

Safe storage temperature 60 - 100° F

SECTION 9: EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	NTP:	IARC	OSHA - Select Carcinogens	NIOSH - Selected LD50s and LC50s
4,4-Diphenylmethane diisocyanate	This product does not contain any material shown to be a carcinogen by the National Toxicology Program (NTP)	This product does not contain any material shown to be a carcinogen by the International agency for Research on Cancer (IARC)	This product does not contain any material shown to be a carcinogen by OSHA	LD50 Mouse 9200mg/kg Oral LD50 Rat
Naphthalene	(PB200 1-103699: male rat - clear)	Monograph 82, 2002	Present	490mg/kg Oral LD50 Rat

Preventive Measures: Conditions of use, adequacy of engineering or other control measures and actual exposures will dictate the need for specific protective devices at your workplace. Medical supervision of all employees who handle or come in contact with respiratory sensitizers is recommended. Persons with respiratory problems including asthmatic-type conditions, chronic bronchitis, or other chronic respiratory diseases or recurrent skin eczema or skin allergies should be evaluated for their suitability of working with this product. Once a person is diagnosed as sensitized, no further exposure to the material that caused the sensitization should be permitted.

Engineering Controls: Use local exhaust ventilation to maintain airborne concentrations below the TL V. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as the ACGIH current edition of 'Industrial Ventilation, a manual of Recommended Practice.

Personal Protection:

Eyes: Chemical safety goggles. If there is a potential for splashing, use a full face shield.

Skin: The following protective materials are recommended: Gloves - neoprene, nitrile rubber, butyl rubber. Thin latex disposable gloves should be avoided for repeated or long term use. Protective clothing should be selected and used in accordance with 'Guidelines for the Selection of Chemical Protective Clothing' published by ACGIH.

Respiratory: When the product is sprayed or heated without adequate ventilation, an approved MSHA/NIOSH positive pressure, supplied-air respirator may be required. Air purifying respirators equipped with organic vapor cartridges and a

HEPA (P1 00) particulate filter may be used under certain conditions when a cartridge change-out schedule has been developed in accordance with OSHA respiratory protection standard (29 CFR 1910.134).

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other Protection: Consult our supervisor or S.O.P. for special handling instructions.

SECTION 10: PHYSICAL AND CHEMICAL PROPERTIES

General Information:

Appearance:

Physical state: Liquid
Color: Clear brown
Odor: Hydrocarbon like
Odor Threshold: Not available

Important health, safety and environmental information:

pH: Not available
Boiling: 350°-380° F
Melting point: Not available
Flash point: 145°F PMCC
Explosive properties: Non-explosive in the presence of the following materials or conditions: Open flames, sparks and static discharge and shocks and mechanical impacts.
Vapor pressure: Not available
Relative density: 1.1
Vapor density: 8.5
Viscosity: 5-15 cps
VOC content: Not Available

SECTION 11: STABILITY AND REACTIVITY

Stability and reactivity: Stable at room temperature. Reaction with water (moisture) produces CO₂ gas. Exothermic reaction with materials containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents. MOI is insoluble with, and heavier than water and sinks to the bottom but reacts slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface by IiberatinQ carbon dioxide Qas.

Conditions of instability: Avoid high temperatures.

Incompatibility with various substances: Water, alcohols, amines, bases and acids.

Hazardous polymerization: Polymerization may occur with incompatible reactants, especially strong bases (alkalies, tertiary amines, metal salts), water, or temperatures over 160°C (320°F).

Hazardous decomposition products: Combustion products may include: carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂ ...), hydrocarbons and HCN.

SECTION 12: TOXICOLOGICAL INFORMATION

No toxicological information is available on the product. Oata obtained on components are summarized below.

Lung tumors have been observed in laboratory animals exposed to aerosol droplets of MDI Polymeric MDI (6 mg/m³) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

SECTION 13: ECOLOGICAL INFORMATION**Persistence and degradability:** No data available**Mobility:** No data available**Bioaccumulation:** No data available**Ecotoxicity effects:** No data available**Aquatic toxicity:** No data available*Naphthalene:***Ecotoxicity - Fish Species Data:** 1.24 mg/L LC50 pink salmon (fry) 96h Static**SECTION 14: DISPOSAL CONSIDERATIONS**

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-product should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 15: TRANSPORT INFORMATION

Regulatory Information	UN Number	Proper Shipping Name	Class	PG*	Label	Additional information
DOT Classification	NA3082	OTHER REGULATED SUBSTANCES, LIQUID, N.O.S. (Methylene Diphenyl Diisocyanate)	9	III		Reportable quantity 5000 Ibs (2270 kg) Single containers less than 5,000 Ibs. are not regulated
TOG Classification	Not regulated					
IMDG Class	Not regulated					
IAT A-DGR Class	Not regulated					

SECTION 16: REGULATORY INFORMATION**United States****HCS Classification:** Toxic Material, Irritant, Sensitizer**U.S. Federal Regulations:** United States Inventory (TSCA 8b): All components are listed or exempted.**CERCLA: Hazardous Substances**

Components	Concentration	Section 304 CERCLA Hazardous Substance	CERCLA Reportable Quantity	Product Reportable Quantity
4,4-Diphenylmethane diisocyanate	35.53	Listed	5000	14073

SARA 313	Product Name	CAS Number	Concentration
Form R – Reporting requirements	Diisocyanate compound (category code N120)	101-68-8	36%

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State Regulations*California Prop 65:* No ingredients listed

Canada

WHMIS (Canada): WHMIS Class D-1A: Material causing immediate and serious toxic effects (Very toxic). WHMIS Class D-2A: Material causing other toxic effects (Very Toxic). WHMIS Class D-2B: Material causing other toxic effects (Toxic).

CEPA (DSL): Canada inventory: All components are listed or exempted.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

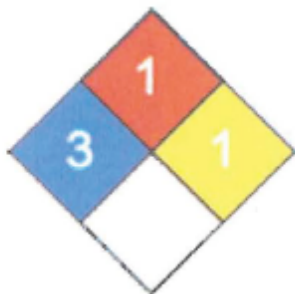
SECTION 17: OTHER INFORMATION

Label requirements: Harmful by inhalation. Irritating to eyes and respiratory system. May cause sensitization by inhalation and skin contact. This product is a respiratory irritant and potential respiratory sensitizer. Repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons. The onset of the respiratory symptoms may be delayed for several hours after exposure.

Hazardous Material Information System (USA):

3	Health
1	Flammability
1	Reactivity
	Protective Equipment

National Fire Protection Association (USA):



While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, *NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.*

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Disclaimer:

The data set forth in this sheet is based on information provided by the suppliers of raw materials and chemicals used in the manufacture of the aforementioned product. Roadware Incorporated makes no warranty with respect to the accuracy of the information provided by their suppliers and disclaims all liability of reliance thereof.

MATERIAL SAFETY DATA SHEET (OSHA 29 CFR 1910.1200)

Product: 10 Minute Concrete Mender (Component B-RES or Polyol side)

SECTION 1: MANUFACTURER'S NAME

Roadware Incorporated
381 Bridgepoint Way
South Saint Paul, MN 55075
651-457-6122 phone



Emergency Telephone Number: CHEM-TEL 800-255-3924

Date Prepared: December 29, 2011 **Date Revised:** December 29, 2011

SECTION 2: PRODUCT INFORMATION

Product Name

10 Minute Concrete Mender (Component B-RES or Polyol side)

Code#

JET-2/JET-25/JET-28/JET-4/JET-45

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS No.	OSHA TWA	ACGIH Exposure Limits	Weight %
Polyether Polyol	Proprietary	None	None	20-40%
Aromatic Hydrocarbon	64742-94-5	None	None	40-60%
Napthalene	91-20-3	10 ppm 50mg/m3	10 ppm 15 ppm STEL	1-5%

SECTION 4: HAZARDS IDENTIFICATION

Physical State Liquid

Odor Slightly Musty

OSHA/HCS Status This material is classified as hazardous under OSHA Hazard Communications Standard (20 CFR 1910.1200)

Emergency Overview:

WARNING: This material, when combined with 10 Minute Concrete Mender Side A, will react within the mixing process in seconds. Any exposure to individual components will be minimal due to the polymer locking reaction between part A and part B. Material in pre-packaged cartridges is self-mixing and is applied directly to the repair area in a semi-reacted state. Exposure under these conditions is generally below measurable amounts. When pot-mixing these materials, adequate ventilation should be provided. Do not pot-mix in enclosed areas. A slight odor is generated within the reaction process. This is caused by a trace amount of naphthalene within the materials. Ventilate enclosed areas to dissipate.

WARNING: Inhalation of high concentrations may cause irritation to respiratory tract, dizziness, headache, unconsciousness, and other central nervous system effects.

Eye Contact: Moderately irritating to the eyes.

Skin Contact: Prolonged skin contacts may defeat the skin and produce dermatitis. Repeated or prolonged skin contact may cause allergic reactions with susceptible people.

Inhalation: Avoid breathing vapors or mists. May cause irritation of respiratory tract. Inhalation of high vapor concentrations may cause symptoms such as headache, dizziness, tiredness, nausea, and vomiting. Prolonged exposure may cause liver and kidney damage based on animal studies.

Ingestion: Harmful if swallowed. Aspiration hazard.

SECTION 5: FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician.

Skin Contact: After contact with skin, wash immediately with plenty of soap and water. Get medical attention if irritation develops. Remove contaminated clothing. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration and get medical attention immediately. If breathing is labored, oxygen should be administered by qualified personnel. Consult a physician if necessary.

Ingestion: If victim is conscious, give water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Notes to Physician: Aspiration may cause pulmonary edema pneumonitis. Dangerous amounts can be absorbed through the skin.

Medical Condition aggravated by exposure: Dermatitis and asthma

SECTION 6: FIRE FIGHTING MEASURES

Flash point: 145Q F. Flashpoint Method: PMCC

Products of combustion:

Extinguishing media: *Suitable:* Use an extinguishing agent suitable for the surrounding fire. Dry chemical, CO₂, water spray, or 'alcohol foam' *Not Suitable:* None known.

Special exposure hazards: Vapors are heavier than air and may spread along floors. Keep away from open flames, hot surfaces and sources of ignition. In a fire or if heated, a pressure increase will occur and the container may burst. No specific hazard.

Special protective equipment for fire-fighters: Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.

Special remarkson explosion hazards: Water mist may be used to cool closed containers.

SECTION 7: ACCIDENTAL RELEASE MEASURES

Personal protection: Use suitable protective equipment (see section 9). Ensure adequate ventilation.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up: Contain and adsorb large spillages onto an inert, non-flammable adsorbent carrier (such as earth or sand). Shovel into open-top drums or suitable container for disposal.

SECTION 8: HANDLING AND STORAGE

Handling:

Storage: Keep container in a cool, well-ventilated area. Keep container tightly closed. Keep away from heat and sources of ignition.

Safe storage temperature 60 - 100° F

SECTION 9: EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	NTP:	IARC	OSHA - Select Carcinogens	NIOSH - Selected LD50s and LC50s
Aromatic hydrocarbons	This product does not contain any material shown to be a carcinogen by the National Toxicology Program (NTP)	This product does not contain any material shown to be a carcinogen by the International agency for Research on Cancer (IARC)	This product does not contain any material shown to be a carcinogen by OSHA	2 ml/kg Dermal LD50 Rabbit 590mg/m ³ Inhalation LD50 Rat
Naphthalene	(PB200 1-103699: male rat - clear)	Monograph 82, 2002	Present	490mg/kg Oral LD50 Rat

Preventive Measures: Conditions of use, adequacy of engineering or other control measures and actual exposures will dictate the need for specific protective devices at your workplace.

Engineering Controls: Ensure adequate ventilation

Personal Protection:

Eyes: Chemical safety goggles. If there is a potential for splashing, use a full face shield.

Skin: The following protective materials are recommended: Gloves - neoprene, nitrile rubber, butyl rubber. Thin latex disposable gloves should be avoided for repeated or long term use. Protective clothing should be selected and used in accordance with 'Guidelines for the Selection of Chemical Protective Clothing' published by ACGIH.

Respiratory: When the product is sprayed or heated without adequate ventilation, an approved MSHA/NIOSH positive pressure, supplied-air respirator may be required. Air purifying respirators equipped with organic vapor cartridges and a HEPA (P1 00) particulate filter may be used under certain conditions when a cartridge change-out schedule has been developed in accordance with OSHA respiratory protection standard (29 CFR 1910.134).

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other Protection: Consult our supervisor or S.O.P. for special handling instructions.

SECTION 10: PHYSICAL AND CHEMICAL PROPERTIES

General Information:

Appearance:

Physical state: Liquid
Color: Black
Odor: Hydrocarbon like
Odor Threshold: Not available

Important health, safety and environmental information:

pH: Not available
Boiling: 350°-380° F
Melting point: Not available
Flash point: 145°F PMCC
Explosive properties: Non-explosive in the presence of the following materials or conditions: Open flames, sparks and static discharge and shocks and mechanical impacts.
Vapor pressure: Not available
Relative density: .95
Viscosity: 5-15 cps
Vapor density: Not available
VOC content: Not available

SECTION 11: STABILITY AND REACTIVITY

Stability and reactivity: Stable under recommended storage conditions.

Conditions of instability: Avoid high temperatures.

Incompatibility with various substances: Strong oxidizing agents, unintended isocyanates.

Hazardous polymerization: Polymerization may occur with incompatible reactants, especially strong oxidizers.

Hazardous decomposition products: Combustion products may include: carbon oxides (CO, CO₂). Thermal decomposition can lead to the release of irritating gasses and vapors.

SECTION 12: TOXICOLOGICAL INFORMATION

No toxicological information is available on the product.

SECTION 13: ECOLOGICAL INFORMATION

Persistence and degradability: No data available

Mobility: No data available

Bioaccumulation: No data available

Ecotoxicity effects: No data available

Aquatic toxicity: No data available

Naphthalene:

Ecotoxicity - Fish Species Data: 1.24 mg/L LC50 pink salmon (fry) 96h Static

SECTION 14: DISPOSAL CONSIDERATIONS

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-product should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Contaminated Packaging: Do not reuse empty containers

Methods for cleaning up: soak up with oil absorbent material. Shovel into suitable container for disposal.

SECTION 15: TRANSPORT INFORMATION

Regulatory Information	UN Number	Proper Shipping Name	Class	PG*	Label	Additional information
DOT Classification	Not regulated					
TOG Classification	Not regulated					
IMDG Class	Not regulated					
IAT A-DGR Class	Not regulated					

SECTION 16: REGULATORY INFORMATION**United States**

OSHA HCS Classification: This material is considered to be hazardous.

U.S. Federal Regulations: United States Inventory (TSCA 8b): All components are listed or exempted.

CERCLA: Hazardous Substances

Components	Concentration	Section 304 CERCLA Hazardous Substance	CERCLA Reportable Quantity	Product Reportable Quantity

SARA (311, 312) hazard class	This product possesses the following SARA hazard categories:	
Immediate Health (acute)	Yes	
Delayed Health (Chronic)	Yes	
Flammability	Yes	
Pressure	No	
Reactivity	No	
SARA 313 Emission Reporting	Listed	

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

<u>State Regulations</u>	Listed components are present: Naphthalene 91-20-3
California Prop 65 MARTK NJRTK PARTK	Carcinogen, initial date 4/19/02 Present Sn 1322 Environmental hazard

Canada**WHMIS (Canada)**

Product classification data: WHMIS Class D-2B: Material causing other toxic effects (Toxic).

Component classification data

Aromatic Hydrocarbon: WHMIS hazard class B3, D2B

CAS 64742-94-5

Naphthalene 1% (English item 1108. French item 1181)

CAS 91-20-3 WHMIS hazard class B4, D2B

CEPA (DSL): Canada inventory: All components are listed or exempted.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

EC EINECS/ELINCS/NLP List	Compliance has not been determined
---------------------------	------------------------------------

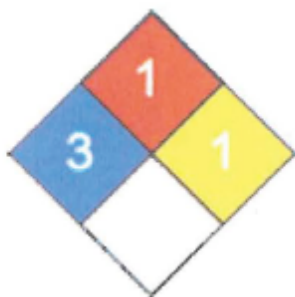
SECTION 17: OTHER INFORMATION

Label requirements: Harmful by inhalation. Irritating to eyes and respiratory system. May cause sensitization by inhalation and skin contact. This product is a respiratory irritant and potential respiratory sensitizer. Repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons. The onset of the respiratory symptoms may be delayed for several hours after exposure.

Hazardous Material Information System (USA):

3	Health
1	Flammability
1	Reactivity
	Protective Equipment

National Fire Protection Association (USA):



While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, *NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.*

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Disclaimer:

The data set forth in this sheet is based on information provided by the suppliers of raw materials and chemicals used in the manufacture of the aforementioned product. Roadware Incorporated makes no warranty with respect to the accuracy of the information provided by their suppliers and disclaims all liability of reliance thereof.

MATERIAL SAFETY DATA SHEET

(OSHA 29 CFR 1910.1200)

Product: 10 Minute JET-Crete

SECTION 1: MANUFACTURER'S NAME

JE Tomes & Associates, Inc.
2513 West 140th Place
Blue Island, IL 60406
708-653-5100 phone
708-653-5101 facsimile



Emergency Telephone Number: N/A

Date Prepared: December 29, 2011 **Date Revised:** December 29, 2011

SECTION 2: PRODUCT INFORMATION

<u>Product Name</u>	<u>Code#</u>
10 Minute JET-Crete	JET-2, JET-25, JET-28, JET-4, and JET-45

SECTION 3: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	CAS No.	PEL(OSHA) mg/M3	TLV(ACGIH)
Silica Sand, crystalline	14808-60-7	10 %SiO ₂ + 2	0.05 (respirable)
Portland Cement	65997-15-1	5	5
<u>May Contain one or more of the following ingredients:</u>			
Amorphous Silica	07631-86-9	80mg/M3 % SiO ₂	10
Blast Furnace Slag	65996-69-2	5	5
Calcium Aluminate Cement	65997-16-2	5	5
Copolymer Powder	24937-78-8	NA	NA
Lime	01305-62-0	5	5
Fly Ash	68131-74-8	5	5
Natural Aluminosilicate	1332-58-7	5	2
Alkaline Resistance Fiber	various	NA	NA

Other Limits: National Institute for Occupational Safety and Health (NIOSH). Recommended standard maximum permissible concentration=005 mg/M3 (respirable free silica) as determined by a full-shift sample up to 10-hour working day, 40-hour work week. See NIOSH Criteria for a Recommended Standard Occupational Exposure to Crystalline

SECTION 4: PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance: Gray to fray-brown colored powder. Some products contain coarse aggregate.

Specific Gravity: 2.6 to 3.15

Melting Point: >2700F

Boiling Point: >2700F

Vapor Pressure: None

Vapor Density: None

Evaporation Rate: None

Solubility in Water: Slight

Odor: None

Product Types: JE Tomes & Associates, Inc. Dry Packed Portland Cement Based Products MSDS

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

Flammability: Noncombustible and not explosive.

SECTION 6: REACTIVITY DATA

Stability: Stable.

Incompatibility (Materials to Avoid): Contact of silica with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, oxygen difluoride, may cause fires.

Hazardous Decomposition or By-products: Silica will dissolve in Hydrofluoric Acid and produce a corrosive gassilicon tetrafluoride.

Hazardous Polymerization: Will Not Occur.

Condition to Avoid: Keep dry until used to preserve product utility.

SECTION 7: HEALTH HAZARD DATA

Route(s) of Entry: Inhalation, Skin, Ingestion

Acute Exposure: Product becomes alkaline when exposed to moisture. Exposure can dry the skin, cause alkali burns and effect the mucous membranes. Dust can irritate the eyes and upper respiratory system. Toxic effects noted in animals include, for acute exposures, alveolar damage with pulmonary edema.

Chronic Exposure: Dust can cause inflammation of the lining tissue of the interior of the nose and inflammation of the cornea. Hypersensitive individuals may develop an allergic dermatitis. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs and possibly cancer. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of Scleroderma, tuberculosis and kidney disorders.

Carcinogenicity Listings: NTP:	Known carcinogen
OSHA:	Not listed as a carcinogen
IARC Monographs:	Group 1 Carcinogen
California Proposition 65:	Known carcinogen

NTP: The National Toxicology Program, in its "Ninth Report on Carcinogens" (released May 15, 2000) concluded that "Respirable crystalline silica (RCS) , primarily quartz dusts occurring in industrial and occupational settings, is known to *be a human carcinogen*, based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between exposure to RCS and increased lung cancer rates in workers exposed to crystalline silica dust (reviewed in IAC., 1997; Brown et al., 1997; Hind et al., 1997)

IARC: The International Agency for Research on Cancer ("IARC") concluded that there was "*sufficient evidence*" in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources", and that there is "*sufficient evidence* in experimental animals for the carcinogenicity of quartz or cristobalite." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is *carcinogenic to humans* (Group1)." The IARC evaluation noted that "carcinogenicity was not detected in all industrial circumstances or studies. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." For further information on the IARC evaluation, see IARC Monographs on the Evaluation of carcinogenic Risks to Humans, Volume 68, "Silica, Some Silicates..."(1997)

Signs and Symptoms of Exposure: Symptoms of excessive exposure to the dust include shortness of breath and reduced pulmonary function. Excessive exposure to skin and eyes especially when mixed with water can cause caustic burns as severe as third degree.

Medical Conditions Generally Aggravated by Exposure: Individuals with sensitive skin and with pulmonary and/or respiratory disease, including, but not limited to, asthma and bronchitis, or subject to eye irritation, should be precluded from exposure. Exposure to crystalline silica or the disease silicosis is associated with increased incidence of scleroderma, Tuberculosis and possibly increased incidence of kidney lesions.

Emergency First Aid Procedures: Irrigate (flood) eyes immediately and repeatedly with clean water. Wash exposed skin areas with soap and water. If irritation or inflammation occurs seek prompt attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed. Get prompt medical attention.

SECTION 8: PRECAUTIONS FOR SAFE HANDLING AND USE

Spills: If spilled, use dustless methods (vacuum) and place into close able container for disposal or use if not contaminated or wet. Use adequate ventilation.

Waste Disposal Method: The packaging and material may be land filled; however, material should be covered to minimize generation of airborne dust. This product is not classified as a hazardous waste under RCRA or CERCLA.

SECTION 9: CONTROL MEASURES/PERSONAL PROTECTION

Inhalation: DO NOT BREATHE DUST. In dusty environments, the use of OSHA, MSHA or NIOSH approved respirator is recommended. Local exhaust can be used, if necessary, to control airborne dust levels.

Eyes: Wear tight fitting goggles.

Skin: The use of barrier creams or impervious gloves, boots and clothing to protect the skin from contact is recommended. Following work, workers should shower with soap and water.

Precautions must be observed because burns occur with little warning – little heat is sensed.

WARN EMPLOYEES AND/OR CUSTOMERS OF THE HAZARDS AND REQUIRED OSHA PRECAUTIONS ASSOCIATED WITH THE USE OF THIS PRODUCT.

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products. Customers-users must comply with all applicable health and safety laws, regulations and orders covering silica.