



MM[®] Seismic Slide Plate Systems

Aluminum Seismic Slide Plate System (SSP Series)

Stainless Seismic Slide Plate System (SSS Series)

Seismic Top-Mount Slide Plate System (STS Series)

Seismic No-Bump Slide Plate System (SNB Series)

The products listed below along with their corresponding Safety Data Sheets (SDS) are contained in this document:

- LokCrete Elastomeric Concrete
 - Part A - Binder
 - Part B - Activator
 - Part C Aggregate



SDS

Safety Data Sheet

LOKCRETE ELASTOMERIC CONCRETE PART A

SDS Number:

Revision Date: 1/3/2015

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1	PRODUCT AND COMPANY IDENTIFICATION
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Manufacturer

MM Systems Corporation
50 MM Way
Pendergrass, GA 30567

Phone: 706-824-7500
Fax: 706-824-7501
Email: info@mmsystemscorp.com
Web: www.mmsystemscorp.com

Product Name: LOKCRETE ELASTOMERIC CONCRETE PART A
Revision Date: 1/3/2015

Transportation emergency phone number: ChemTel Inc. (800)255-3924, +1 (813)248-0585

2	HAZARDS IDENTIFICATION
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NFPA: Health = 1, Fire = 0, Reactivity = 0
HMIS III: H1/F0/PH0



HMIS III	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARDS	0
PERSONAL PROTECTION	

The product is not classified according to the Globally Harmonized System (GHS).
The product is not classified according to the CLP regulation.

H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways



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COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
7631-86-9	25-50%	Silica
770-35-4	<10%	2-Propanol, 1-phenoxy-
64742-95-6	<10%	Solvent naphtha, petroleum, light arom.
13463-67-7	<10%	Titanium dioxide
1317-61-9	<10%	Iron oxide (Fe3O4)
50-00-0	<0.1%	Formaldehyde

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FIRST AID MEASURES

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact:

Clean with water and soap.

If skin irritation continues, consult a doctor.

After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed

Gastric or intestinal disorders

Dizziness

Headache

Hazards No further relevant information available.

Indication of any immediate medical attention and special treatment needed

Treat skin and mucous membrane with antihistamine and corticoid preparations.



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5	FIRE FIGHTING MEASURES
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Autoignition Temp: >500 °F / >260 °C

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information Cool endangered receptacles with water fog or haze.

6	ACCIDENTAL RELEASE MEASURES
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Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions: Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste

7	HANDLING AND STORAGE
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Handling Precautions: Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Storage Requirements: Information about fire - and explosion protection: No special measures required.
Requirements to be met by storerooms and receptacles:
Avoid storage near extreme heat, ignition sources or open flame.
Store in a cool location.

Information about storage In one common storage facility.
Store away from foodstuffs.
Do not store together with oxidizing and acidic materials.

Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles.
Keep container tightly sealed.



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8	EXPOSURE CONTROLS/PERSONAL PROTECTION
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Engineering Controls:

Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Ensure compliance yo all relevant OSHA regulations.

Personal Protective Equip:

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.
Use suitable respiratory protective device when aerosol or mist is formed.

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR
Nitrile rubber, NBR
Neoprene gloves

Eye protection:

Safety glasses

Body protection: Protective work clothing

Limitation and supervision of exposure into the environment

No further relevant information available.

Risk management measures

No further relevant information available.

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs No further relevant information available.

PNECs No further relevant information available.



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9	PHYSICAL AND CHEMICAL PROPERTIES
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Appearance:	Pigmented Liquid	VOC:	35,6 g/L
Physical State:	Liquid	Auto-Ignition Temp:	>500 °F / >260 °C

10	STABILITY AND REACTIVITY
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Stability:	No decomposition if used and stored according to specifications.
Conditions to Avoid:	Store away from oxidizing agents. Keep away from heat and direct sunlight.
Materials to Avoid:	Reacts with strong acids and alkali.
Hazardous Decomposition:	Hydrocarbons Carbon monoxide and carbon dioxide Toxic metal oxide smoke
Hazardous Polymerization:	Will not occur.

11	TOXICOLOGICAL INFORMATION
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LD/LC50 values relevant for classification:
64742-95-6 Solvent naphtha (petroleum), light arom.
Oral LD50 >6800 mg/kg (rat)
Dermal LD50 >3400 mg/kg (rab)
Inhalative LC50/4 h >10,2 mg/l (rat)

Primary irritant effect:
on the skin: Slight irritant effect on skin and mucous membranes.
on the eye: Slight irritant effect on eyes.

Sensitization: No sensitizing effects known.

Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful



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12	ECOLOGICAL INFORMATION
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Aquatic toxicity: No further relevant information available.

Persistence and degradability The product is partially biodegradable. Significant residuals remain.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Due to mechanical actions of the product (e.g. agglutinations) damages may occur.

Additional ecological information:

General notes:

This statement was deduced from products with a similar structure or composition.

The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13	DISPOSAL CONSIDERATIONS
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Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.



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14	TRANSPORT INFORMATION
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UN-Number DOT, ADR, ADN, IMDG, IATA	N/A
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Polyester Resin Based Coating
Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class	N/A
Packing group DOT, ADR, IMDG, IATA	N/A
Marine pollutant	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation"	---

15	REGULATORY INFORMATION
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COMPONENT / (CAS/PERC) / CODES

- *Silica (7631869 25-50%) MASS, NJHS, PA, TSCA
- *2-Propanol, 1-phenoxy- (770354 <10%) TSCA
- *Solvent naphtha, petroleum, light arom. (64742956 <10%) TSCA
- *Titanium dioxide (13463677 <10%) MASS, OSHAWAC, PA, TSCA, TXAIR
- *Iron oxide (Fe3O4) (1317619 <10%) TSCA
- *Formaldehyde (50000 <0.1%) CERCLA, CSWHS, EHS302, EPCRAWPC, HAP, MASS, NJEHS, NJHS, NRC, OSHAHTS, OSHAPSM, PA, PROP65, SARA313, TOXICRCRA, TSCA, TXAIR, TXHWL

REGULATORY KEY DESCRIPTIONS

- MASS = MA Massachusetts Hazardous Substances List
- NJHS = NJ Right-to-Know Hazardous Substances
- PA = PA Right-To-Know List of Hazardous Substances
- TSCA = Toxic Substances Control Act

- OSHAWAC = OSHA Workplace Air Contaminants
- TXAIR = TX Air Contaminants with Health Effects Screening Level

- CERCLA = Superfund clean up substance
- CSWHS = Clean Water Act Hazardous substances
- EHS302 = Extremely Hazardous Substance
- EPCRAWPC = EPCRA Water Priority Chemicals
- HAP = Hazardous Air Pollutants
- NJEHS = NJ Extraordinarily Hazardous Substances
- NRC = Nationally Recognized Carcinogens
- OSHAHTS = OSHA Hazardous and Toxic Substances
- OSHAPSM = OSHA Chemicals Requiring process safety management
- PROP65 = CA Prop 65
- SARA313 = SARA 313 Title III Toxic Chemicals
- TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
- TXHWL = TX Hazardous Waste List



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16	OTHER INFORMATION
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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

R10 Flammable.

R65 Harmful: may cause lung damage if swallowed.



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1	PRODUCT AND COMPANY IDENTIFICATION
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Manufacturer

MM Systems Corporation
50 MM Way
Pendergrass, GA 30567

Phone: 706-824-7500

Fax: 706-824-7501

Email: info@mmsystemscorp.com

Web: www.mmsystemscorp.com

Product Name: LOKCRETE ELASTOMERIC CONCRETE PART B

Revision Date: 1/3/2015

Transportation emergency phone number: ChemTel Inc. (800)255-3924, +1 (813)248-0585

2	HAZARDS IDENTIFICATION
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NFPA:
HMIS III:

Health = 2, Fire = 1, Reactivity = 1
H*2/F1/PH1



HMIS III		
HEALTH	<input checked="" type="checkbox"/>	2
FLAMMABILITY		1
PHYSICAL HAZARDS		1
PERSONAL PROTECTION		

GHS Signal Word:
DANGER

GHS Hazard Pictograms:



GHS Classifications:

- Health, Skin corrosion/irritation, 2
- Health, Respiratory or skin sensitization, 1 Skin
- Health, Serious Eye Damage/Eye Irritation, 2 A
- Health, Acute toxicity, 4 Inhalation



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Health, Respiratory or skin sensitization, 1 Respiratory
Health, Specific target organ toxicity - Single exposure, 3
Health, Carcinogenicity, 2
Health, Specific target organ toxicity - Repeated exposure, 2

GHS Phrases:

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 of breathing difficulties if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure

GHS Precautionary Statements:

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P370 - In case of fire: _
P378 - Use CO2, foam, extinguishing powder for extinction
P403+233 - Store in a well ventilated place. Keep container tightly closed.
P501 - Dispose of contents/container in accordance with local regulation

Persons who suffer from hypersensitivity of the respiratory tract (e.g. asthmatics and chronic bronchitis sufferers) should avoid handling this product. Symptoms affecting the respiratory tract can also occur several hours after overexposure. Dust, vapors and aerosols are the primary risk to the respiratory tract.

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COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
101-68-8	25-50%	4,4'-Methylenediphenyl diisocyanate
9016-87-9	25-50%	Isocyanic acid, polymethylenepolyphenylene ester
26447-40-5	10-20%	Benzene, 1,1'-methylenebis[isocyanato-



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4	FIRST AID MEASURES
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- Inhalation: Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation.
- Skin Contact: Immediately wash with water and soap and rinse thoroughly. Immediately remove any clothing soiled by the product. If skin irritation continues, consult a doctor.
- Eye Contact: Protect unharmed eye. Rinse opened eye for several minutes under running water. Remove contact lenses if worn, if possible. Rinse opened eye for several minutes under running water. Then consult a doctor.
- Ingestion: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed

Asthma attacks
Allergic reactions
Breathing difficulty
Coughing

Hazards

Danger of impaired breathing.
Danger of pulmonary oedema.
Danger of pneumonia.
Danger of convulsion.
Danger of disturbed cardiac rhythm.

Indication of any immediate medical attention and special treatment needed

Contains isocyanates. Consult literature for specific antidotes.
Medical supervision for at least 48 hours.
Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.
Monitor circulation, possible shock treatment.
Later observation for pneumonia and pulmonary oedema.
If necessary oxygen respiration treatment.
Treat skin and mucous membrane with antihistamine and corticoid preparations.



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5	FIRE FIGHTING MEASURES
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Flash Point: 226 °C

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water.

Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Hydrogen cyanide (HCN)

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information Cool endangered receptacles with water spray.

Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area.

Advice for fire-fighters:

During fire-fighting respirator with independent air-supply and airtight garment is required.

Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

Unsuitable extinguishing media: High volume water jet

6	ACCIDENTAL RELEASE MEASURES
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Isolate area and prevent access.

Remove persons from danger area.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to regulations.

Ensure adequate ventilation.

Additional Spill Procedures/Neutralization: Neutralization solutions:

(1) Colorimetric Laboratories Inc. (CLI) decontamination solution.

(2) A mixture of 75% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10) and 5% npropanol.

(3) A mixture of 80% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10).

(4) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.



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7	HANDLING AND STORAGE
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Handling Precautions:

Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.
Keep respiratory protective device available.

Storage Requirements:

Requirements to be met by storerooms and receptacles:

Provide ventilation for receptacles.
Store in a cool location.
Protect from humidity and water.
Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility:

Store away from water.
Store away from foodstuffs.
Do not store together with oxidizing and acidic materials.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Protect from humidity and water.
Protect from heat and direct sunlight.
Keep container tightly sealed.



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EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Personal Protective Equip:

Ensure compliance yo all relevant OSHA regulations.
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

Respiratory protection:

An air-supplied respirator must be worn during spray applications, during long-term (over 1 hour) exposures when the product is heated or in environments of high concentrations near the TLV, an air-purifying respirator equipped with organic cartridges or canisters and dust filters can be used. However, due to the poor warning properties of this product, proper fit and timely replacement of filter elements must be ensured. Observe OSHA regulations for respirator use (29 CFR 1910.134).

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR
Nitrile rubber, NBR

Eye protection:

Contact lenses should not be worn.
Safety glasses with side shields or face shield strongly suggested.

Body protection: Use protective suit.

Limitation and supervision of exposure into the environment

No further relevant information available.

Risk management measures

Organizational measures should be in place for all activities involving this product.



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Control parameters

Ingredients with limit values that require monitoring at the workplace:

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

PEL (USA) Short-term value: C 0,2 mg/m³, C 0,02 ppm

REL (USA) Short-term value: C 0,2* mg/m³, C 0,02* ppm, Long-term value: 0,05 mg/m³, 0,005 ppm, *10-min

TLV (USA) 0,051 mg/m³, 0,005 ppm

EL (Canada) Short-term value: C 0,01 ppm, Long-term value: 0,005 ppm, Skin; S

EV (Canada) 0,005 ppm

9	PHYSICAL AND CHEMICAL PROPERTIES
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Appearance:	Clear Brown Liquid	Odor:	Slightl characteristic
Physical State:	Liquid	Flash Point:	226 °C
Spec Grav./Density:	1.198 kg/m ³	Auto-Ignition Temp:	208 °C (406 °F)
Boiling Point:	208 °C (406 °F)		

10	STABILITY AND REACTIVITY
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Stability:	No decomposition if used and stored according to specifications.
Conditions to Avoid:	Keep ignition sources away - Do not smoke. Moisture. Keep away from heat and direct sunlight. Store away from oxidizing agents.
Materials to Avoid:	Reacts with water. Reacts with oxidizing agents. Reacts with alkali, amines and strong acids. Contact with acids releases toxic gases. Reacts with peroxides and other radical forming substances. Reacts with certain metals.
Hazardous Decomposition:	Carbon monoxide and carbon dioxide Nitrogen oxides (NO _x) Hydrogen cyanide (prussic acid) Poisonous gases/vapours
Hazardous Polymerization:	Polymerises at about 200 °C with evolution of CO ₂ .



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TOXICOLOGICAL INFORMATION

LD/LC50 values relevant for classification:
101-68-8 4,4'-methylenediphenyl diisocyanate
Oral LD50 2200 mg/kg (mouse)

Primary irritant effect:
on the skin: Irritant to skin and mucous membranes.
on the eye: Irritating effect.

Sensitization:
Sensitization possible through inhalation.
Sensitization possible through skin contact.

Subacute to chronic toxicity: Toxic and/or corrosive effects may be delayed up to 24 hours.

Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful Irritant

Acute effects (acute toxicity, irritation and corrosivity):
In addition to local irritant manifestations, there is a narcotic effect when inhaling high concentrations, with the danger of central respiratory arrest.

Sensitisation: Sensitization possible by inhalation and/or dermal contact.

Repeated dose toxicity:
May cause damage to organs through prolonged or repeated exposure .
Repeated exposures may result in skin and/or respiratory sensitivity.



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12	ECOLOGICAL INFORMATION
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Aquatic toxicity: The material is harmful to the environment.
Persistence and degradability The product is partly biodegradable. Significant residuals remain.
Bioaccumulative potential Does not accumulate in organisms
Mobility in soil No further relevant information available.
Ecotoxicological effects:
Remark: Harmful to fish

Additional ecological information:

General notes:

This statement was deduced from the properties of the single components.

Avoid transfer into the environment.

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Harmful to aquatic organisms.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13	DISPOSAL CONSIDERATIONS
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Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Solvent naphtha

14	TRANSPORT INFORMATION
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UN-Number DOT, ADR, ADN, IMDG, IATA	N/A
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Aromatic Isocyanate Prepolymer
Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class	N/A
Packing group DOT, ADR, IMDG, IATA	N/A
Marine pollutant	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation"	---



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REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

*4,4'-Methylenediphenyl diisocyanate (101688 25-50%) CERCLA, HAP, MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

*Isocyanic acid, polymethylenepolyphenylene ester (9016879 25-50%) SARA313, TSCA

*Benzene, 1,1'-methylenebis[isocyanato- (26447405 10-20%) TSCA

REGULATORY KEY DESCRIPTIONS

CERCLA = Superfund clean up substance
HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
OSHA = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
SARA313 = SARA 313 Title III Toxic Chemicals
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level

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OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

SAFETY DATA SHEET

CONTACT INFORMATION

ADDRESS: MM Systems Corporation
50 MM Way, P.O. Box 98
Pendergrass, GA 30567

INFORMATION TELEPHONE: Toll Free Domestic: 800-241-3460 International 1-706-824-7500

**For Chemical Emergency
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night**

**Within USA and Canada: 800-424-9300
Outside USA and Canada: +1 703-527-3887 (Collect Calls Accepted)**

I. PRODUCT IDENTIFICATION

PRODUCT NAME: **LOKCRETE® ELASTOMERIC CONCRETE AGGREGATE PART C**
CHEMICAL FAMILY: Crystalline Silica
OSHA HAZARD COMMUNICATION: May cause eye and skin irritation. Harmful if inhaled. May cause lung damage or possibly cancer. May cause silicosis with prolonged and repeated overexposure to dust.

II. HAZARDOUS INGREDIENTS

COMPONENTS:	CAS No:	PEL (OSHA)	TLV (ACGIH)
Silica Sand, crystalline %SiO ₂ +2	14808-60-7	10	0.05 mg/M3 (respirable)

Other Limits: National Institute for Occupational Safety and Health (NIOSH). Recommended standard maximum permissible concentration = 0.05 mg/M3 (respirable free silica) as determined by a full-shift sample up to 10-hour working day, 40 hour work week.

III. PHYSICAL / CHEMICAL CHARACTERISTICS

BOILING POINT: N/A	SPECIFIC GRAVITY: 2.76
VAPOR PRESSURE: N/A	MELTING POINT: N/A
VAPOR DENSITY: N/A	EVAPORATION RATE: N/A
SOLUBILITY IN WATER: Zero	APPEARANCE AND ODOR: Angular, White, Buff

IV. FIRE & EXPLOSION HAZARD DATA

FLASH POINT: No Flash Point.

FLAMMABLE LIMITS: None LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: None Required; Sand may be used as extinguishing media for Class A & Class B fires

SPECIAL FIRE FIGHTING PROCEDURES: None Required

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

V. REACTIVITY DATA

STABLE: N/A UNSTABLE: N/A

CONDITIONS TO AVOID: None

INCOMPATIBILITY: Contact with powerful oxidizing agents such as flourine, chlorine, trifluoride, manganese trioxide, oxygen difluoride, may cause fires

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Silica will dissolve in Hydrofluoric Acid and produce a corrosive gas – silicon tetrafluoride

HAZARDOUS POLYMERIZATION – MAY OCCUR: N/A WILL NOT OCCUR: N/A

CONDITIONS TO AVOID: None

VI. HEALTH HAZARD DATA

ROUTES OF ENTRY – INHALATION Yes SKIN N/A INGESTION N/A

HEALTH HAZARDS: Health = N/A Flammability = N/A Reactivity = N/A

CARCINOGENY: NTP: Known carcinogen IARC MONOGRAPHS: N/A

OSHA REGULATED: Not listed as a carcinogen

SIGNS & SYMPTOMS OF EXPOSURE: Undue breathlessness, wheezing, cough, and sputum production

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pulmonary function may be reduced by inhalation of respirable crystalline silica.

EMERGENCY & FIRST AID PROCEDURES: For sand in eyes, wash immediately with water. If irritation persists, seek medical attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed, seek medical attention as needed.

VII. PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: No special steps

WASTE DISPOSAL METHOD: The packaging and material may be land filled. This product is not classified as a hazardous waster under RCRA or CERCLA

PRECAUTIONS TO BE TAKEN IN STORAGE & HANDLING: N/A

OTHER PRECAUTIONS: Blast area must be kept clear due to respirable silica danger

VIII. CONTROL MEASURES

RESPIRATORY PROTECTION: Respirator requirements are based on exposure level as shown below:

5 x PEL or less: Any dust respirator

10 x PEL or less: Any dust respirator, except single-use or quarter mask respirator. Any fume respirator or high efficiency particulate filter respirator. 50 x PEL or less: A high efficiency particulate filter respirator with a full face-piece. 500 x PEL or less: A powered air-purifying respirator with a high efficiency particulate filter. A Type C supplied-air respirator operated in pressure-demand or other positive pressure or continuous-flow mode. Greater than 500 x PEL or entry and escape from unknown concentrations: Self-contained breathing apparatus with a full face-piece operated pressure-demand or other positive pressure mode. A combination respirator that includes a Type C supplied-air respirator with a full face-piece operated in pressure-demand or other positive pressure continuous-flow mode and an auxiliary self-contained breathing apparatus operated in pressure demand or other positive pressure mode.

VENTILATION: REQUIRED

LOCAL EXHAUST: Exhaust into bag house

PROTECTIVE GLOVES: Standard Blasters

EYE PROTECTION: Hood with lens

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Must use OSHA approved respirator & air fed hoods

WORK / HYGIEN PRACTICES: Warn employees and/or customers of the hazards and required OSHA precautions associated with this product.