# SAFETY DATA SHEET

# 1. Identification

Product identifier Puma-Crete 401 Resin

Other means of identification

SKU# 401-resin

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Puma-Crete Corp.
Address 177 Huntington Ave.
Suite 1703 #77920

Boston, MA 02115-3153

United States

**Telephone** Customer Service 857-226-8247

Websitewww.pumaCrete.netE-mailinfo@Pumacrete.netContact personEHS Department

Emergency phone number CHEMTREC (800) 424-9300

International (703) 527-3887

# 2. Hazard(s) identification

Physical hazards
Health hazards
Not classified.
Environmental hazards
Not classified.
Not classified.
Not classified.

Label elements

Hazard symbol None.

Signal word None.

**Hazard statement** The mixture does not meet the criteria for classification.

**Prevention** Observe good industrial hygiene practices.

**Response** Wash hands after handling.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise

classified (HNOC)

None known.

**Supplemental information** Not applicable.

# 3. Composition/information on ingredients

# **Mixtures**

Chemical name	Common name and synonyms	CAS number	<u>%</u>
Aromatic Hydrocarbon Solvents		64742-95-6	1 - < 3
Triethyl Phosphate		78-40-0	1 - < 3
Other components below reportable leve	els		> 90

<sup>\*</sup>Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

IngestionRinse mouth. Get medical attention if symptoms occur.Most importantDirect contact with eyes may cause temporary irritation.

symptoms/effects, acute and

delayed

Indication of immediate Treat symptomatically. medical attention and special

inedical attention and s

treatment needed

General information Ensure that medical personnel are aware of the material(s) involved and

take precautions to protect themselves.

# 5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable

extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting

equipment/instructions

Move containers from fire area if you can do so without risk.

Specific methods

Move containers from fire area if you can do so without risk.

**General fire hazards** No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements, or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly

to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** 

Avoid discharge into drains, water courses or onto the ground.

# 7. Handling and storage

Precautions for safe handling Avoid p

Avoid prolonged exposure. Observe good industrial hygiene practices.

Conditions for safe storage, Stor

Store in original tightly closed container. Store away from incompatible materials (see Section 10

including any incompatibilities of the SDS).

# 8. Exposure controls/personal protection

#### **Occupational exposure limits**

US. Workplace Environmenta	I Exposure Lev	el (WEEL)	) Guides
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Components	Туре	Value	
Triethyl Phosphate (CAS 78-40-0)	TWA	7.45 mg/m3	
,		1 ppm	

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

# Individual protection measures, such as personal protective equipment

**Eye/face protection** If contact is likely, safety glasses with side shields are recommended. **Hand protection** For prolonged or repeated skin contact use suitable protective gloves.

Skin protection

Other Wear suitable protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment. **Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

# 9. Physical and chemical properties

Appearance Liquid.
Physical state Liquid.
Form Liquid.

Color Not available.

Odor threshold Not available.

PH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling Not available.

range

Flash point 230.0 °F (110.0 °C) estimated

Evaporation rate Not available.
Flammability (solid, gas) Not available.
Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

Not available.

(%)

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressureNot available.Vapor densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.

Other information

**Density** 8.43 lb/gal

Flammability class Combustible IIIB estimated

Specific gravity 1.01

# 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Avoid temperatures exceeding the flash point. Contact with incompatible materials.

**Incompatible materials** Strong oxidizing agents.

**Hazardous decomposition**No hazardous decomposition products are known.

products

# 11.Toxicological information

# Information on likely routes of exposure

IngestionExpected to be a low ingestion hazard.InhalationProlonged inhalation may be harmful.

Skin contactNo adverse effects due to skin contact are expected.Eye contactDirect contact with eyes may cause temporary irritation.Symptoms related to theDirect contact with eyes may cause temporary irritation.

physical, chemical and toxicological characteristics

#### Information on toxicological effects

Acute toxicity Not available.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation. **Serious eye damage/eye** Direct contact with eyes may cause temporary irritation.

irritation

Respiratory or skin sensitization

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity**No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Not available.

**Reproductive toxicity**This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

**Aspiration hazard** Not available.

**Chronic effects** Prolonged inhalation may be harmful.

# 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Triethyl Phosphate 0.8

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

# 13.Disposal considerations

**Disposal instructions**Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

# 14.Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

**IMDG** 

Not regulated as dangerous goods.

Transport in bulk according to Not available.

Annex II of MARPOL 73/78 and

the IBC Code

# 15.Regulatory information

**US** federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)** 

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely N

hazardous substance

SARA 311/312 Hazardous No

chemical

SARA 313 (TRI reporting)

Not regulated.

#### Other federal regulations

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

Inventory name

(SDWA)

#### **US** state regulations

#### **US. Massachusetts RTK - Substance List**

Not regulated.

#### US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

#### US. Pennsylvania RTK - Hazardous Substances

Not regulated.

#### **US. Rhode Island RTK**

Not regulated.

# **US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

#### **International Inventories**

Country(s) or region

Country(s) or region	inventory name	On inventory (yes/no)
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

# 16. Other information, including date of preparation or last revision

**Issue date** 01-09-2014

Version # 01
HMIS® ratings Health: 1

Flammability: 1
Physical hazard: 1

Puma-Crete 401 SDS US

No

On inventory (ves/no)\*

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**NFPA** ratings Health: 1 Flammability: 1 Instability: 1

**Disclaimer** The information in the sheet was written based on the best knowledge and experience currently

available.

**Revision Information** Product and Company Identification: Product and Company Identification

Composition / Information on Ingredients: Undisclosed Ingredient Statement Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group

Regulatory Information: Risk Phrases - Labeling

Puma-Crete 401 SDS US

# SAFETY DATA SHEET

#### 1. Identification

Product identifier Puma-Crete 401-Hardener

Other means of identification

SKU# 401-hardener
Recommended use Not available.
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company namePuma-Crete Corp.Address177 Huntington Ave.Suite 1703#77920

Boston, MA 02115-3153

**Telephone** Customer Service 857-226-8247

 Website
 www.Pumacrete.net

 E-mail
 info@Pumacrete.net

Contact person EHS Department

**Emergency phone number** CHEMTREC (800) 424-9300 International (703) 527-3887

# 2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Acute toxicity, inhalation Category 3

Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Sensitization, respiratory Category 1
Sensitization, skin Category 1
Carcinogenicity Category 2

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, repeated expos Category 2

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful

if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through

prolonged or repeated exposure.

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Use only outdoors or in a well-ventilated area. Do not breathe mist or vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. In case of

inadequate ventilation wear respiratory protection.

**Response** If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable

for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical

advice/attention. Take off contaminated clothing and wash before reuse.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

**Supplemental information** 

Not applicable.

# 5. Composition/information on ingredients

#### **Mixtures**

Chemical name	Common name and synonyms	CAS number	%
4,4'-methylenediphenyl Diisocyanate		101-68-8	30 - 60
Diphenylmethane Diisocyanate [isomers And Homologues]		9016-87-9	30 - 60
Methylenediphenyl Diisocyanate (mdi)		26447-40-5	10 - 30

<sup>\*</sup>Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

# 6. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or

> artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a POISON CENTER

or doctor/physician.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. In case of

eczema or other skin disorders: Seek medical attention and take along these instructions. Take off

contaminated clothing and wash before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important

symptoms/effects, acute and

delayed

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash. May cause allergic respiratory reaction. May cause redness and pain. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special

treatment needed

Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Wash contaminated clothing before reuse.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

# 7. Fire-fighting measures

Suitable extinguishing media

Unsuitable

extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Fire-fighting

equipment/instructions

Move containers from fire area if you can do so without risk.

Specific methods Move containers from fire area if you can do so without risk. General fire hazards

No unusual fire or explosion hazards noted.

#### 8. Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Puma-Crete 401 SDS US

# Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements, or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** 

Avoid discharge into drains, water courses or onto the ground.

#### 10. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage,** Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store **including any incompatibilities** away from incompatible materials (see Section 10 of the SDS).

# 11. Exposure controls/personal protection

#### Occupational exposure limits

Components	Туре	Value	
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)	Ceiling	0.2 mg/m3	
		0.02 ppm	
Diphenylmethane Diisocyanate [isomers And Homologues] (CAS 9016-87-9)	Ceiling	0.2 mg/m3	
·		0.02 ppm	
US. ACGIH Threshold Limit Values			
Components	Туре	Value	
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)	TWA	0.005 ppm	
Diphenylmethane Diisocyanate [isomers And Homologues] (CAS 9016-87-9)	TWA	0.005 ppm	
US. NIOSH: Pocket Guide to Chemic	al Hazards		
Components	Туре	Value	
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)	Ceiling	0.2 mg/m3	
		0.02 ppm	
	TWA	0.05 mg/m3	
		0.005 ppm	
Diphenylmethane Diisocyanate [isomers And Homologues] (CAS 9016-87-9)	Ceiling	0.2 mg/m3	
•		0.02 ppm	
		0.02 ppm	
	TWA	0.05 mg/m3	

# **Biological limit values**

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

# Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

**Hand protection** Wear appropriate chemical resistant gloves.

Skin protection

Other Wear appropriate chemical resistant clothing.

Respiratory protection When workers are facing concentrations above exposure limits, they must use respirators with

vapor filter.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

# 12. Physical and chemical properties

Liquid. **Appearance** Physical state Liquid. **Form** Liquid. Color Dark brown. Odor Musty

**Odor threshold** Not available. nН Not available. Melting point/freezing point Not available.

Initial boiling point and boiling 406.4 °F (208 °C) estimated

range

Flash point 390.2 °F (199.0 °C) estimated

**Evaporation rate** Not available. Flammability (solid, gas) Not available. Upper/lower flammability or explosive limits Not available.

Flammability limit - lower

(%)

(%)

Flammability limit - upper

Not available.

Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available.

Vapor pressure Not available. Vapor density Not available. Not available. Relative density

Solubility(ies)

Solubility (water) Not available. Partition coefficient Not available.

(n-octanol/water)

**Auto-ignition temperature** Not available. **Decomposition temperature** Not available. **Viscosity** Not available.

Other information

**Density** 1.20 g/cm3 estimated Combustible IIIB estimated Flammability class

Specific gravity 1.24

# 13. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Acids. Alcohols.

**Hazardous decomposition** 

products

No hazardous decomposition products are known.

# 14. Toxicological information

Information on likely routes of exposure

Ingestion Expected to be a low ingestion hazard.

Inhalation Harmful if inhaled. May cause damage to organs by inhalation. May cause allergy or asthma

symptoms or breathing difficulties if inhaled.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical, and

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an

allergic skin reaction. Skin irritation. May cause redness and pain. Dermatitis.

Rash. toxicological characteristics

Information on toxicological effects

**Acute toxicity** Harmful if inhaled. May cause an allergic skin reaction. May cause allergy or asthma symptoms or

breathing difficulties if inhaled. May cause respiratory irritation.

Skin corrosion/irritation Serious eye damage/eye Causes skin irritation.

irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)

3 Not classifiable as to carcinogenicity to humans. 3 Not classifiable as to carcinogenicity to humans.

Diphenylmethane Diisocyanate [isomers And Homologues] (CAS 9016-87-9)

Methylenediphenyl Diisocyanate (mdi) (CAS 26447-40-5) 3 Not classifiable as to carcinogenicity to humans.

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Respiratory tract irritation.

Specific target organ toxicity - May cause damage to organs through prolonged or repeated exposure.

repeated exposure

Reproductive toxicity

**Aspiration hazard** Not available.

**Chronic effects** Prolonged inhalation may be harmful. May cause damage to organs through prolonged or

repeated exposure.

15. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

No data is available on the degradability of this product. Persistence and degradability

Bioaccumulative potential No data available. Mobility in soil

No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

16. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material

and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Empty containers should be taken to an approved waste handling site for recycling or disposal. Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

# 17. Transport information

DOT

Not regulated as dangerous goods.

**IATA** 

Not regulated as dangerous goods.

**IMDG** 

Not regulated as dangerous goods.

Transport in bulk according to Not available.

Annex II of MARPOL 73/78 and

the IBC Code

# 18. Regulatory information

**US** federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

# TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8) LISTED Diphenylmethane Diisocyanate [isomers and LISTED

Homologues] (CAS 9016-87-9)

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

# SARA 304 Emergency release notification

Not regulated.

# US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8) % 1.0 Diphenylmethane Diisocyanate [isomers and %10

Homologues] (CAS 9016-87-9)

# US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

4.4'-methylenediphenyl Diisocyanate (CAS 101-68-8) Diphenylmethane Diisocyanate **lisomers** And Listed

. Homologues] (CAS 9016-87-9)

# Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

**SARA 302 Extremely** 

hazardous substance

SARA 311/312 Hazardous No

chemical

#### SARA 313 (TRI reporting)

<b>9</b> ,			
Chemical name	CAS number	% by wt.	
4,4'-methylenediphenyl Diisocyanate	101-68-8	30 - 60	
Diphenylmethane Diisocyanate [isomers and	9016-87-9	30 - 60	
Homologues]			

### Other federal regulations

# Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)

Diphenylmethane Diisocyanate [isomers And Homologues] (CAS 9016-87-9)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

#### **US** state regulations

#### **US. Massachusetts RTK - Substance List**

4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)

Diphenylmethane Diisocyanate [isomers And Homologues] (CAS 9016-87-9)

# US. New Jersey Worker and Community Right-to-Know Act

4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8) 500 lbs.

Diphenylmethane Diisocyanate [isomers and Homologues] (CAS 9016-87-9)

500 lbs.

#### US. Pennsylvania RTK - Hazardous Substances

4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)

Diphenylmethane Diisocyanate [isomers And Homologues] (CAS 9016-87-9)

#### **US. Rhode Island RTK**

4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)

Diphenylmethane Diisocyanate [isomers And Homologues] (CAS 9016-87-9)

#### **US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Inventory name

#### **International Inventories**

Country(s) or region

Country(s) or region inventory name on in		On inventory (yes/no	J)	
	Australia	Australian Inventory of Chemical S	ubstances (AICS) Y	es
	Canada	Domestic Substances List (DSL)	Y	es
	Canada	Non-Domestic Substances List (NI	OSL) N	No
	China (IECSC)	Inventory of Existing Chemical Sub Yes	ostances in China	
	Europe	European Inventory of Existing Con Substances (EINECS)	mmercial Chemical Y	es

Europe European List of Notified Chemical Substances (ELINCS)

Japan Inventory of Existing and New Chemical Substances

(ENCS) Yes

Existing Chemicals List (ECL) Korea Yes New Zealand Inventory New Zealand Yes **Philippines** Philippine Inventory of Chemicals and Chemical Substances

> Yes (PICCS)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

Yes

On inventory (vec/ne)

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

# 16. Other information, including date of preparation or last revision

Issue date 01-09-2014 **Revision date** 01-09-2014

Version # 02

**HMIS®** ratings Health: 2\* Flammability: 1

Physical hazard: 1

NFPA ratings Health: 2

Flammability: 1 Instability: 1

**Disclaimer** The information in the sheet was written based on the

best knowledge and experience currently available.

**Revision Information** Product and Company Identification: Alternate Trade

Namesuma-Crete 401 SDS US

# SAFETY DATA SHEET

# 1. Identification

**Product identifier** 

Other means of identification

SKU#

Puma-Crete ECO filler/aggregate

Recommended use

ECO-HF

**Recommended restrictions** 

Not available.

Workers should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

# Manufacturer/Importer/Supplier/Distributor information

Manufacturer

**Company name** Puma-Crete Corp.

**Address** 177 Huntington Ave.

Suite 1703 #77920 Boston, MA 02115-3153

**Telephone** Customer Service 857-226--8247

Websitewww.pumaCrete.netE-mailinfo@pumacrete.netContact personEHS Department

Emergency phone number CHEMTREC (800) 424-9300

International (703) 527-3887

# 2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A Carcinogenicity Category 1A

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

**Hazard statement** Causes skin irritation. Causes serious eye irritation. May cause cancer.

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye

protection/face protection.

**Response** If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise

classified (HNOC)

None known.

**Supplemental information** Not applicable.

# 3. Composition/information on ingredients

#### **Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Crystalline SiO2 (Quartz)		14808-60-7	60 - 100

Puma-Crete 401 SDS US

Chemical name	Common name and synonyms	CAS number	%
Calcium Hydroxide		1305-62-0	1 - 5
Other components below reportal	ole levels		< 30

<sup>\*</sup>Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 9. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off Skin contact

contaminated clothing and wash before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause redness

Ingestion Rinse mouth. Get medical attention if symptoms occur.

and pain.

**Most important** 

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special

treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under

observation. Symptoms may be delayed.

**General information** IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware

of the material(s) involved and take precautions to protect themselves.

#### 10. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

None known.

Unsuitable

extinguishing media

Specific hazards arising from

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting

equipment/instructions

In the event of fire, cool tanks with water spray.

Specific methods Cool containers exposed to flames with water until well after the fire is out.

General fire hazards No unusual fire or explosion hazards noted.

#### 11. Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Stop the flow of material if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section

13 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

#### 12. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Store locked up. Store in original tightly closed container. Store away from incompatible materials Conditions for safe storage, including any incompatibilities (see Section 10 of the SDS).

#### 13. Exposure controls/personal protection

#### Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910,1000)

Components	Type	Value	Form
Calcium Hydroxide (CAS 1305-62-0)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

Puma-Crete 401 SDS US

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Туре	Value	Form
Crystalline SiO2 (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 millions of particle	Respirable.
<b>US. ACGIH Threshold Limit Value</b>	es		
Components	Туре	Value	Form
Calcium Hydroxide (CAS 1305-62-0)	TWA	5 mg/m3	
Crystalline SiO2 (Quartz) fraction. (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable
US. NIOSH: Pocket Guide to Che	emical Hazards		
Components	Туре	Value	Form
Calcium Hydroxide (CAS 1305-62-0)	TWA	5 mg/m3	

Crystalline SiO2 (Quartz) **TWA** 

0.05 mg/m3 (CAS 14808-60-7)

No biological exposure limits noted for the ingredient(s). **Exposure guidelines** Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica

should be monitored and controlled.

Appropriate engineering

**Biological limit values** 

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Respirable dust

#### Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear appropriate chemical resistant gloves.

Skin protection

Other Wear appropriate chemical resistant clothing.

Respiratory protection Use a particulate filter respirator for particulate concentrations exceeding the Occupational

Exposure Limit.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

**General hygiene** considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

# 9. Physical and chemical properties

**Appearance** Granular. Physical state Solid. Solid. **Form** 

Color Not available. Not available. Odor Not available. **Odor threshold** Not available. Hq Melting point/freezing point Not available. Initial boiling point and boiling Not available.

range

Not available. Flash point **Evaporation rate** Not available. Not available. Flammability (solid, gas) Upper/lower flammability or explosive limits

Flammability limit - lower Not available.

(%)

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available.

Vapor pressure0 hPa estimatedVapor densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

**Density** 2.24 g/cm3 estimated **Specific gravity** 2.24 estimated

# 19. Stability and reactivity

**Reactivity**The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Contact with incompatible materials.

**Incompatible materials** Powerful oxidizers. Chlorine.

Hazardous decomposition

products

No hazardous decomposition products are known.

# 20. Toxicological information

# Information on likely routes of exposure

IngestionExpected to be a low ingestion hazard.InhalationProlonged inhalation may be harmful.

**Skin contact** Causes skin irritation.

**Eye contact** Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May

cause redness and pain.

Information on toxicological effects

Acute toxicity Not available.

**Skin corrosion/irritation** Causes skin irritation.

Serious eye damage/eye

irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity**No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

#### Carcinogenicity

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However, in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) May cause cancer. According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Crystalline SiO2 (Quartz) (CAS 14808-60-7) 1 Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

Crystalline SiO2 (Quartz) (CAS 14808-60-7)

Known to Be Human Carcinogen.

**Reproductive toxicity**This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

**Aspiration hazard** Not available.

**Chronic effects** Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

# 21. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability 
No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

# 22. Disposal considerations

**Disposal instructions**Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material

and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways, or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container

is emptied.

### 23. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

**IMDG** 

Not regulated as dangerous goods.

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78 and

the IBC Code

Puma-Crete 401 SDS US

# 15. Regulatory information

**US** federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

#### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely

hazardous substance

SARA 311/312 Hazardous No

chemical

# SARA 313 (TRI reporting)

Not regulated.

#### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

### **US** state regulations

#### **US. Massachusetts RTK - Substance List**

Calcium Hydroxide (CAS 1305-62-0)

Crystalline SiO2 (Quartz) (CAS 14808-60-7)

#### US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

#### US. Pennsylvania RTK - Hazardous Substances

Calcium Hydroxide (CAS 1305-62-0)

Crystalline SiO2 (Quartz) (CAS 14808-60-7)

#### **US. Rhode Island RTK**

Not regulated.

#### **US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

# US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Crystalline SiO2 (Quartz) (CAS 14808-60-7) Listed: October 1, 1988

#### **International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

Country(s) or region Inventory name

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

On inventory (yes/no)\*

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

# 16. Other information, including date of preparation or last revision

**Issue date** 01-09-2014

Version # 01

**HMIS**® ratings Health: 3\*

Flammability: 0

Physical hazard: 0

NFPA ratings Health: 3

Flammability: 0 Instability: 0

**Disclaimer** The information in the sheet was written based on the best knowledge and experience currently

available.

**Revision Information** This document has undergone significant changes and should be reviewed in its entirety.

Puma-Crete 401 SDS US