

SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: Multi-Purpose Flex Polymer-Modified Thin-Set Mortar

Product Code: Not Available

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Product Use: Mortar

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEETS

Name/Address: JAMO
3490 Piedmont Road, Suite 1300
Atlanta, GA 30329

Telephone Number: (562)-598-8808

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: INFOTRAC 1-800-535-5053 (US and Canada)
INTERNATIONAL + 1-352-323-3500

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL IN ACCORDANCE WITH PARAGRAPH (d) OF 29 CFR

1910.1200 (OSHA HAZCOM2012)

Skin Irritation	Category 2
Serious Eye Damage	Category 1
Skin sensitization	Category 1B
STOT-SE	Category 3
STOT-RE	Category 1
Carcinogenicity	Category 1A

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM2012

2.2a SIGNAL WORD:
DANGER!

2.2b HAZARD STATEMENTS
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
May cause respiratory irritation

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Causes damage to organs through prolonged or repeated exposure
 May cause cancer

2.2c HAZARD PICTOGRAMS



2.2d PRECAUTIONARY STATEMENTS

<p>i. PREVENTION</p>	<p>Wash hands thoroughly after handling. Do not breathe dust/fume/gas/mist/ vapors/spray. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.</p>
<p>ii. RESPONSE</p>	<p>If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: call a poison center/doctor. If exposed or concerned: get medical advice/attention</p>
<p>iii. STORAGE</p>	<p>Store in a well-ventilated place. Keep container tightly closed.</p>
<p>iv. DISPOSAL</p>	<p>Dispose of contents/containers in accordance with all local, state, provincial, and federal regulations.</p>

2.3 ADDITIONAL INFORMATION

2.3a HNOC – HAZARDS NOT OTHERWISE CLASSIFIED

Not applicable

2.3b UNKNOWN ACUTE TOXICITY

67% of the mixture consists of ingredient(s) of unknown acute toxicity.

2.3c WHMIS CLASSIFICATION

Class D2B – Skin/Eye Irritant
 Class D2A – Chronic Toxic Effects
 Class D2A - Carcinogenicity
 Class E – Corrosive Material

2.3d LABEL ELEMENTS ACCORDING TO WHMIS

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i. WHMIS HAZARD SYMBOLS



ii. SIGNAL WORD
DANGER!

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Chemical Name	CAS Number	Weight %
Crystalline Silica, Quartz	14808-60-7	30 – 60%
Portland Cement	65997-15-1	30 – 60%
Coal Ash	68131-74-8	7 – 13%
Slag	65996-69-2	7 – 13%
Calcium Carbonate	1317-65-3	5 – 10%
Gypsum	7778-18-9	1 – 5%
Vinyl Acetate – Ethylene Copolymer	24937-78-8	1 – 5%

Section 4: FIRST-AID MEASURES

4.1 DESCRIPTION OF THE FIRST-AID MEASURES

ROUTES OF EXPOSURE	DESCRIPTION
Eye Contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
Skin Contact:	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
Inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Ingestion:	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED

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ROUTES OF EXPOSURE	DESCRIPTION
Eye Contact:	Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Skin Contact:	Causes skin irritation. Handling can cause dry skin, discomfort, irritation, and dermatitis. May cause sensitization by skin contact.
Inhalation:	May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated exposure. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a serious disabling and fatal lung disease.
Ingestion:	May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Not applicable

Section 5: FIRE-FIGHTING MEASURES

5.1 FLAMMABILITY

Flammability: Not Flammable by WHMIS/OSHA HAZCOM2012 Criteria

5.2 EXTINGUISHING MEDIA

5.2a. Suitable Extinguishing Media:

Treat for surrounding material.

5.2b. Unsuitable Extinguishing Media:

Not available.

5.3 SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

5.3a. Products of Combustion:

May include, and are not limited to: oxides of carbon and hydrogen sulfide

5.3b. Explosion Data

i. Sensitivity to Mechanical Impact:

Not available.

ii. Sensitivity to Static Discharge:

Not available.

Section 6: ACCIDENTAL RELEASE MEASURES

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6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Methods for Containment: Recover all usable material. Pick up large pieces, and then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning-Up: Vacuum or sweep material and place in a disposal container. Dispose of unwanted material properly in accordance with all local, regional, national and international regulations.

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Use in well-ventilated areas. Wear chemical resistant gloves and eye protection. Do not mix with other chemical products, except as indicated by the manufacturers. Do not get in eyes. Do not get on skin or clothing. Do not breathe fumes. Do not take internally. Good housekeeping is important to prevent accumulation of dust.

General Hygiene Advice: Use good industrial hygiene practices and wear recommended personal protection. Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Keep out of the reach of children. Keep container tightly closed. Store at room temperature and keep containers closed when not in use. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Keep dry until use.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETER

Exposure Guidelines

Occupational Exposure Limits		
Chemical Name	OSHA-PEL	ACGIH-TLV
Crystalline Silica, Quartz	0.1 mg/m ³	0.025 mg/m ³
Portland cement	5 mg/m ³ (resp.) 15 mg/m ³ (total)	10 mg/m ³ (resp.)

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Coal Ash	Not available	Not available
Slag	Not available	Not available
Calcium Carbonate	5 mg/m ³ (Resp.) 15 mg/m ³ (Total)	5 mg/m ³ (Resp.)
Gypsum	10 mg/m ³ (Resp.) 15 mg/m ³ (Total)	10 mg/m ³
Vinyl Acetate – Ethylene Copolymer	Not available	Not available

8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTION MEASURES

8.3a. Personal Protective Equipment:

- i. **Eye/Face Protection:** Wear approved eye protection [properly fitted dust- or splash-proof chemical safety goggles/face (face shield)]
- ii. **Skin Protection:**
 1. **Hand Protection:** Wear chemical resistant gloves.
 2. **Body Protection:** Wear suitable protective clothing
- iii. **Respiratory Protection:** A NIOSH approved dust mask or filtering face piece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).
- iv. **General Health and Safety Measures:** Handle according to established industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.):	Solid Powder (Gray or White)
Odor:	Characteristic
Odor Threshold:	Not available
pH:	10 – 12.5 when wet
Melting point/Freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	> 212°F
Evaporation rate (Water=1):	Not available
Flammability:	Not flammable
Upper Flammability/Explosive Limit:	Not available
Lower Flammability/Explosive Limit:	Not available
Vapor Pressure	Not available

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Vapor Density:	Not available
Relative Density:	2 – 3 g/cc
Solubility in Water:	Slightly Soluble
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition Temperature:	Not available
Viscosity (cps):	Not available
VOC Content:	0 g/L (0%)

Section 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2. CHEMICAL STABILITY

Stable under normal storage conditions. Keep dry in storage.

10.3. POSSIBILITY OF HAZARDOUS REACTION

No dangerous reaction known under conditions of normal use.

10.4. CONDITIONS TO AVOID

Heat. Incompatible materials.

10.5. INCOMPATIBLE MATERIALS

Strong acids. Strong Oxidizers.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Upon decomposition, this product may yield oxides of carbon and hydrogen sulfide.

Section 11: TOXICOLOGICAL INFORMATION

11.1. LIKELY ROUTES OF EXPOSURE:

Skin contact, skin absorption, eye contact, inhalation, and ingestion.

11.2. SYMPTOMS RELATED TO PHYSICAL/CHEMICAL/TOXICOLOGICAL CHARACTERISTICS:

Eye Contact: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin Contact: Causes skin irritation. Handling can cause dry skin, discomfort, irritation, and dermatitis. May cause sensitization by skin contact.

Inhalation: May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated exposure. This product contains

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crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a serious disabling and fatal lung disease.

Ingestion: May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

Acute Toxicity		
Chemical Name	LC50	LD50
Crystalline Silica, Quartz	Not available	Not available
Portland cement	Not available	Not available
Coal Ash	Not available	Oral: >2000 mg/kg, rat
Slag	Dusts/Mists: >5,235 mg/m ³	Dermal: >4,000 mg/kg
Calcium Carbonate	Not available	Oral: 6450 mg/kg, rat
Gypsum	Not available	Not available
Vinyl Acetate – Ethylene Copolymer	Not available	Not available

Carcinogenicity	
Chemical Name	Chemical Listed as Carcinogens or Potential Carcinogen (NTP,IARC,OSHA,ACGIH,CP65)
Crystalline Silica, Quartz	N-A2, I-1, O-1, ACGIH-A2, CP65
Portland cement	ACGIH-A4
Coal Ash	Not Listed
Slag	Not Listed
Calcium Carbonate	Not Listed
Gypsum	Not Listed
Vinyl Acetate – Ethylene Copolymer	Not Listed

11.3. DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT AND LONG-TERM EXPOSURE

SHORT-TERM	
Skin Corrosion/Irritation:	Causes skin irritation
Serious Eye Damage/Irritation:	Causes severe eye damage
Respiratory Sensitization:	Not available
Skin Sensitization:	May cause an allergic skin reaction
STOT-Single Exposure:	May cause respiratory irritation
Aspiration Hazard:	Not available
LONG-TERM	
Carcinogenicity:	May cause cancer
Germ Cell Mutagenicity:	Not available
Reproductive Toxicity:	Not available
STOT-Repeated Exposure:	Causes damage to organs through prolonged or repeated exposure
Synergistic/Antagonistic Effects:	Not available

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Section 12: ECOLOGICAL INFORMATION

12.1. ECOTOXICITY

May cause long-term adverse effects to the aquatic environment. Keep from entry into sewers and waterways.

Ecotoxicity		
Chemical Name	EC50/NOEC-48 Hours	LC50/NOEC-96 Hours
Crystalline Silica, Quartz	Not available	Not available
Portland cement	Not available	Not available
Slag	LC50 > 100 mg/L Daphnia Magna	LC50: > 100 mg/L
Calcium Carbonate	Not available	Not available
Coal Ash	LC50 > 100 mg/L Daphnia Magna	LC50: > 100 mg/L
Gypsum	Not available	Not available
Vinyl Acetate – Ethylene Copolymer	Not available	Not available

12.2. PERSISTENCE AND DEGRADABILITY

Not available

12.3. BIOACCUMULATIVE POTENTIAL

Not available

12.4. MOBILITY IN SOIL

Not available

12.5. OTHER ADVERSE EFFECTS

Not available

Section 13: DISPOSAL CONSIDERATIONS

13.1. DISPOSAL METHOD

Dispose of contents/containers in accordance with all local, state, provincial, and federal regulations

13.2. OTHER DISPOSAL CONSIDERATIONS

Not available

Section 14: TRANSPORT INFORMATION

DOT (U.S.)	TDG (CANADA)
UN NUMBER:	UN NUMBER:
Not regulated	Not regulated
UN PROPER SHIPPING NAME:	UN PROPER SHIPPING NAME:

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Not regulated	Not regulated
TRANSPORT HAZARD CLASS (ES):	TRANSPORT HAZARD CLASS (ES):
Not regulated	Not regulated
PACKING GROUP (if applicable):	PACKING GROUP (if applicable):
Not regulated	Not regulated

SUMMARY: Product is not regulated under DOT/TDG and other transportation regulations.

14.1. ENVIRONMENTAL HAZARDS

Not available

14.2. TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available

14.3. SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood.

Section 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATIONS SPECIFIC FOR THE CHEMICAL

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

US: SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

15.2. US FEDERAL INFORMATION:

CHEMICAL NAME	SARA TITLE III			
	SECTION 302 (EHS) TPQ (LBS)	SECTION 304 EHS RQ (LBS)	CERCLA RQ (LBS)	SECTION 313 (TRI)
Crystalline Silica, Quartz	Not Listed	Not Listed	Not Listed	Not Listed
Portland cement	Not Listed	Not Listed	Not Listed	Not Listed
Slag	Not Listed	Not Listed	Not Listed	Not Listed
Calcium Carbonate	Not Listed	Not Listed	Not Listed	Not Listed
Coal Ash	Not Listed	Not Listed	Not Listed	Not Listed
Gypsum	Not Listed	Not Listed	Not Listed	Not Listed
Vinyl Acetate – Ethylene Copolymer	Not Listed	Not Listed	Not Listed	Not Listed
Cement, Alumina, Chemicals	Not Listed	Not Listed	Not Listed	Not Listed

15.3. US STATE RIGHT TO KNOW LAWS:

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California Proposition 65:	WARNING! This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm
Other U.S. States "Right to Know" Lists:	
New Jersey:	Silica, quartz: CAS#14808-60-7 Silicate, Portland cement: CAS#65997-15-1 Calcium carbonate: CAS#1317-65-3 Gypsum (Calcium Sulfate): CAS#7778-18-9
Pennsylvania:	Silica, quartz: CAS#14808-60-7 Silicate, Portland cement: CAS#65997-15-1 Calcium carbonate: CAS#1317-65-3 Gypsum (Calcium Sulfate): CAS#7778-18-9
Massachusetts:	Silica, Crystalline, Quartz: CAS#14808-60-7 Portland Cement: CAS#65997-15-1 Calcium carbonate: CAS#1317-65-3 Gypsum: CAS#7778-18-9
Minnesota:	Silica, quartz: CAS#14808-60-7 Cement, Portland, Chemicals: CAS#65997-15-1 Calcium carbonate: CAS#1317-65-3 Gypsum (Calcium Sulfate): CAS#7778-18-9
Florida:	Not Available
Michigan:	Not Available

15.4. GLOBAL INVENTORIES

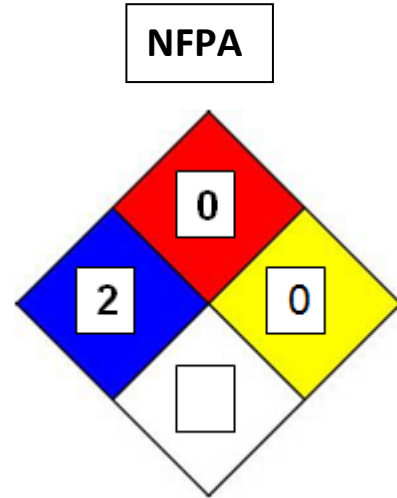
Chemical Name	USA TSCA	Canada DSL/NDL
Crystalline Silica, Quartz	Yes	DSL
Portland cement	Yes	DSL
Slag	Yes	DSL
Calcium Carbonate	Yes	DSL(*)
Coal Ash	Yes	DSL
Gypsum	Yes	DSL
Vinyl Acetate – Ethylene Copolymer	Yes	DSL
Cement, Alumina, Chemicals	Yes	DSL

*Exemption: Natural occurring chemical

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15.5. NFPA AND HMIS RATINGS:

<p style="text-align: center; margin: 0;">HEALTH HAZARD</p> <p>4 EXTREME - Highly toxic - May be fatal on short-term exposure.</p> <p>3 SERIOUS - Toxic - Full protective suit and breathing apparatus should be worn.</p> <p>2 MODERATE - Breathing apparatus and face mask must be worn.</p> <p>1 SLIGHT - Breathing apparatus may be worn.</p> <p>0 MINIMAL - No precautions necessary.</p>	<p style="text-align: center; margin: 0;">FLAMMABILITY HAZARD</p> <p>4 EXTREME - Extremely flammable gas or liquid. Flash Point below 73°F.</p> <p>3 SERIOUS - Flammable. Flash Point 73°F to 100°F.</p> <p>2 MODERATE - Combustible. Requires moderate heating to ignite. Flash Point below 200°F.</p> <p>1 SLIGHT - Slightly combustible. Requires strong heating to ignite.</p> <p>0 MINIMAL - Will not burn under normal conditions.</p>
<p style="text-align: center; margin: 0;">SPECIFIC HAZARD</p> <p>OXIDIZER OXY</p> <p>ACID ACID</p> <p>ALKALI ALK</p> <p>CORROSIVE COR</p> <p>Use NO WATER W</p> <p>RADIATION ☸</p>	<p style="text-align: center; margin: 0;">INSTABILITY HAZARD</p> <p>4 EXTREME - Explosive at room temperature.</p> <p>3 SERIOUS - May detonate if shocked or heated under confinement or mixed with water.</p> <p>2 MODERATE - Unstable. May react with water.</p> <p>1 SLIGHT - May react if heated or mixed with water.</p> <p>0 MINIMAL - Normally stable. Does not react with water.</p>



HMIS

<p style="text-align: center; margin: 0;">2 HEALTH</p> <p style="text-align: center; margin: 0;">0 FLAMMABILITY</p> <p style="text-align: center; margin: 0;">0 REACTIVITY</p> <p style="text-align: center; margin: 0;">0 PERSONAL PROTECTION</p> <p style="text-align: center; margin: 0; font-size: 2em;">B</p>	<p style="text-align: center; margin: 0; font-size: 0.8em;">PROTECTIVE EQUIPMENT INDEX</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">A </td> <td style="width: 50%; padding: 2px;">G </td> </tr> <tr> <td style="padding: 2px;">B </td> <td style="padding: 2px;">H </td> </tr> <tr> <td style="padding: 2px;">C </td> <td style="padding: 2px;">I </td> </tr> <tr> <td style="padding: 2px;">D </td> <td style="padding: 2px;">J </td> </tr> <tr> <td style="padding: 2px;">E </td> <td style="padding: 2px;">K </td> </tr> <tr> <td style="padding: 2px;">F </td> <td style="padding: 2px;">X Ask your supervisor for special handling instructions.</td> </tr> </table>	A	G	B	H	C	I	D	J	E	K	F	X Ask your supervisor for special handling instructions.
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F	X Ask your supervisor for special handling instructions.												

Hazard Index	
4	Severe Hazard
3	Serious Hazard
2	Moderate Hazard
1	Slight Hazard

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15.6. SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65	California Proposition 65
OSHA (O)	Occupational Safety and Health Administration
ACGIH (G)	American Conference of Governmental Industrial Hygienists <ul style="list-style-type: none"> • A1 – Confirmed human carcinogen • A2 – Suspected human carcinogen • A3 – Animal carcinogen • A4 – Not classifiable as a human carcinogen • A5 – Not suspected a human carcinogen
IARC (I)	International Agency for Research on Cancer <ul style="list-style-type: none"> • 1 – The agent (mixture) is carcinogenic to humans • 2A – The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals. • 2B – The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals. • 3 – The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans. • 4 – The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.
NTP (N)	National Toxicology Program <ul style="list-style-type: none"> • 1 – Known to be carcinogens • 2 – Reasonably anticipated to be carcinogens

Section 16: OTHER INFORMATION

Date of Preparation: September 3, 2014

Version: 2.0

Revision Date: N/A

Disclaimer: We believe the statements, technical information and recommendations contained are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

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End of Safety Data Sheet