

# **SAFETY DATA SHEET**

### HIGH CALCIUM QUICKLIME

## **GRAYMONT**

## **Section 1. Identification**

**GHS** product identifier

: HIGH CALCIUM QUICKLIME

Other means of

: Lime, Quicklime, Calcium Oxide, Burnt Lime, Unslaked Lime, Fluxing Lime.

identification **Product code** 

: Not available.

**Product type** 

: Solid.

#### **Identified uses**

Neutralization, flocculation, flux(met.), caustic agent, absorption.

Supplier/Manufacturer

: GRAYMONT

#200-10991 Shellbridge Way Richmond, BC V6X 3C6

Canada

Phone: 1 604 207-4292 Toll free: 1 866 207-4292 Fax: 1 604 207-9014

Web Site: http://www.graymont.com/

**Emergency telephone** number (with hours of

operation)

: CANUTEC (613-996-6666) CHEMTREC, US (800-424-9300 INTERNATIONAL: (703-527-3887)

## Section 2. Hazards identification

**OSHA/HCS** status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 CARCINOGENICITY (inhalation) - Category 1A

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

**GHS** label elements

**Hazard pictograms** 







Signal word : Danger

**Hazard statements** : H318 - Causes serious eye damage.

H315 - Causes skin irritation.

H350 - May cause cancer if inhaled. H335 - May cause respiratory irritation.

H372 - Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements** 





## Section 2. Hazards identification

**Prevention** 

Response

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P281 - Use personal protective equipment as required. P280 - Wear protective gloves. Wear eye or face protection.

P271 - Use only outdoors or in a well-ventilated area.

P260 - Do not breathe dust.

P270 - Do not eat, drink or smoke when using this product.

P264 - Wash hands thoroughly after handling. P314 - Get medical attention if you feel unwell.

P308 + P313 - IF exposed or concerned: Get medical attention.

P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel

unwell.

P302 + P352 + P362 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take

off contaminated clothing. Wash contaminated clothing before reuse.

P332 + P313 - If skin irritation occurs: Get medical attention.

P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or physician.

Storage : P401 - Store to minimize dust generation.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Supplemental label

elements

: Not applicable.

#### **Hazards not otherwise classified (HNOC)**

Physical hazards not otherwise classified

(PHNOC)

: None known.

Health hazards not otherwise classified

(HHNOC)

: None known.

# Section 3. Composition/information on ingredients

Substance/mixture

Mixture

Other means of identification

: Lime, Quicklime, Calcium Oxide, Burnt Lime, Unslaked Lime, Fluxing Lime.

#### **CAS** number/other identifiers

CAS number : 1305-78-8
Product code : Not available.

Ingredient name	%	CAS number
	90 - 100 0.0001 - 1	1305-78-8 14808-60-7

Crystalline silica has been found in some products at or above detection level 0.1%. Concentration is dependent upon limestone source.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.





# Section 4. First aid measures

#### **Description of necessary first aid measures**

**Eye contact** 

: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.

Inhalation

Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. When used under normal conditions quicklime doesn't generate fumes. However dust (Particulates) may be generated. Use dust-mask if dust is present. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

#### Most important symptoms/effects, acute and delayed

### Potential acute health effects

**Eye contact** : Causes serious eye damage. **Inhalation** : May cause respiratory irritation.

Skin contact : Causes skin irritation.

**Ingestion**: No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:

pain watering redness

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

burning sensation

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains





## Section 4. First aid measures

#### Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** 

: No specific treatment.

**Protection of first-aiders** 

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

# Section 5. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing media

: Use dry chemical fire extinguisher.

Unsuitable extinguishing media

: Do not use water or halogenated compounds, except that large amounts of water may be used to deluge small quantities of quicklime.

Specific hazards arising from the chemical

: Not applicable.

Hazardous thermal decomposition products

: None.

Special protective actions for fire-fighters

: First move people out of line-of-sight of the scene and away from windows.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

# Section 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** 

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up



### Section 6. Accidental release measures

**Spill** 

: Move containers from spill area. Do not use water on bulk material spills. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

#### Precautions for safe handling

**Protective measures** 

: Put on appropriate personal protective equipment (see Section 8). Avoid exposure obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store to minimize dust generation. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Do not store in unlabeled containers.

# Section 8. Exposure controls/personal protection

#### **Control parameters**

#### **United States**

#### Occupational exposure limits

Ingredient name	Exposure limits
Calcium oxide	ACGIH TLV (United States, 4/2014).
	TWA: 2 mg/m³ 8 hours.
	NIOSH REL (United States, 10/2013).
	TWA: 2 mg/m³ 10 hours.
	OSHA PEL (United States, 2/2013).
	TWA: 5 mg/m³ 8 hours.
	MSHA PEL
	TWA 8/40 hours: 5 mg/m <sup>3</sup>
Crystalline silica, quartz	OSHA PEL Z3 (United States, 2/2013).
	TWA: 10 mg/m³ 8 hours. Form: Respirable
	TWA: 250 mppcf 8 hours. Form: Respirable
	NIOSH REL (United States, 10/2013).
	TWA: 0.05 mg/m³ 10 hours. Form: Respirable dust
	ACGIH TLV (United States, 4/2014).
	TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction
	MSHA PEL
	TWA 8/40 hours:30 mg/m³/(%SiO2)+2 mg/m³ Form: Total dust 10 mg/m³/(%SiO2)+2 mg/m³ Form: Respirable dust

#### **Canada**





# Section 8. Exposure controls/personal protection

ין	TWA (8	3 hours)		STEL (	15 mins	)	Ceiling	3		
name p	ppm	mg/m³	Other	ppm	mg/m³	Other	ppm	mg/m³	Other	Notations
CGIH 4/2014 - 2009 - 2013 - 2014 - CGIH 4/2014 - 2009 - 2013 - 2013 -	-	2 2 2 2 2 2 0.025 0.025 0.025 0.025	-			-	-	-	- - - - -	[3] [a] [b] [c] [a] [d]
2222222	GGIH 4/2014	ame ppm  GGIH 4/2014 - 0009 - 02013 - 02014 - 0009 - 0313 - 0313 - 0313 - 0313 - 0313 - 0313 - 0313 -	ppm mg/m³  GGIH 4/2014 - 2  2003 - 2  2013 - 2  2014 - 2  GGIH 4/2014 - 0.025  2009 - 0.025  2013 - 0.025  2013 - 0.025  - 0.025  - 0.025	mme ppm mg/m³ Other  GGIH 4/2014 - 2 - 2 0009 - 2 - 2 02013 - 2 - 2 02014 - 2 - 2 03GIH 4/2014 - 0.025 - 2 0009 - 0.025 - 2 0113 - 0.025 - 2 0113 - 0.025 - 2 0113 - 0.025 - 2 0113 - 0.1 - 0.1	mame ppm mg/m³ Other ppm  GGIH 4/2014 - 2 2009 - 2 2013 - 2 2014 - 2 309 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.1	mame ppm mg/m³ Other ppm mg/m³  GGIH 4/2014 - 2	mame ppm mg/m³ Other ppm mg/m³ Other  GGIH 4/2014 - 2 2009 - 2 2013 - 2 2014 - 2 309 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025 2013 - 0.025	ame ppm mg/m³ Other ppm mg/m³ Other ppm cGIH 4/2014 - 2	Coll	Ame   ppm   mg/m³   Other   ppm   pp

[3]Skin sensitization

Form: [a]Respirable fraction [b]Respirable particulate. [c]Respirable [d]Respirable dust

# Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Engineering controls may be required to control the primary or secondary risks associated with this product.

# **Environmental exposure** controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

#### **Individual protection measures**

**Hygiene measures** 

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### **Skin protection**

**Hand protection** 

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

#### **Body protection**

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Respiratory protection

: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Wear an appropriate NIOSH approved respirator if concentration levels exceed the safe exposure limits.



# Section 9. Physical and chemical properties

**Appearance** 

Physical state : Solid. [Crystalline.]

Color : White.

Odor : Odorless + soil like smell.

Odor threshold : Not available.

pH : 12.45 [ Sat. soln.] at 25°C

**Melting point** : 2570 to 2625°C (4658 to 4757°F)

Boiling point : 2850°C (5162°F)
Flash point : Not applicable.
Evaporation rate : Not available.
Flammability (solid, gas) : Not applicable.
Lower and upper explosive : Not applicable.

(flammable) limits

Vapor pressure : Not available.
Vapor density : Not available.
Relative density : 3.25 to 3.28
Solubility : Not available.

Solubility in water : 0.125 g/100 g at 20°C

Partition coefficient: n-

octanol/water

: Not available.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not applicable.

Viscosity : Not available.

Volatility : Not available.

VOC (w/w) : 0 % (w/w)

# Section 10. Stability and reactivity

Reactivity: Reacts violently with water to form calcium hydroxide, generating heat.

**Chemical stability**: The product is stable.

Possibility of hazardous

reactions

: Exothermic reaction to water.

**Conditions to avoid** : Do not allow quicklime to come into contact with incompatible materials. e.g. Water,

acids, reactive fluoridated compounds, reactive brominated compounds. reactive powered metals, organic acid anhydrides, nitro-organic compounds, reactive

phosphorous compounds, interhalogenated compounds.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials, acids and

moisture.

**Hazardous decomposition** 

products

: None.





# **Section 11. Toxicological information**

#### Information on toxicological effects

### **Acute toxicity**

There is no data available.

#### Irritation/Corrosion

There is no data available.

#### **Sensitization**

There is no data available.

#### **Carcinogenicity**

#### **Classification**

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Crystalline silica, quartz	-	1	Known to be a human carcinogen.	A2	-	+

#### Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
Calcium oxide	Category 3	Not applicable.	Respiratory tract irritation

#### Specific target organ toxicity (repeated exposure)

Name	3 3 3	Route of exposure	Target organs
Crystalline silica, quartz	Category 1		kidneys, respiratory tract and testes

#### **Aspiration hazard**

There is no data available.

Information on the likely routes of exposure

: Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

**Eye contact** : Causes serious eye damage. **Inhalation** : May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**: Adverse symptoms may include the following:

pain watering redness

**Inhalation**: Adverse symptoms may include the following:

respiratory tract irritation

coughing

burning sensation

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

**Ingestion** : Adverse symptoms may include the following:

stomach pains





# Section 11. Toxicological information

#### Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate : No known significant effects or critical hazards.

effects

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate : No known significant effects or critical hazards.

effects

**Potential delayed effects**: No known significant effects or critical hazards.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure.

**Carcinogenicity**: May cause cancer if inhaled. Risk of cancer depends on duration and level of exposure.

Mutagenicity: No known significant effects or critical hazards.Teratogenicity: No known significant effects or critical hazards.Developmental effects: No known significant effects or critical hazards.Fertility effects: No known significant effects or critical hazards.

#### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

There is no data available.

# **Section 12. Ecological information**

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
Calcium oxide	•	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	46 days

#### Persistence and degradability

There is no data available.

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Calcium oxide	-	2.34	low

#### **Mobility in soil**

Soil/water partition : Not available. coefficient (Koc)

Other adverse effects: No known significant effects or critical hazards.



# Section 13. Disposal considerations

**Disposal methods** 

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

# **Section 14. Transport information**

	DOT	TDG	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	UN1910
UN proper shipping name	-	-	-	CALCIUM OXIDE
Transport hazard class(es)	-	-	-	8
Packing group	-	-	-	III
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

**AERG**: Not applicable.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according: Not available. to Annex II of MARPOL 73/78 and the IBC Code

# Section 15. Regulatory information

U.S. Federal regulations

: TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): Calcium Oxide is subject to inventory update reporting (IUR).

RCRA classification: Calcium Oxide is not listed or classified.

CWA-311: Calcium Oxide has been withdrawn from the Clean Water Act (CWA) list of hazardous substances. (11/13/79) (44FR65400).

**CERCLA**: Calcium Oxide is not listed.





# Section 15. Regulatory information

**FDA**: Calcium Oxide has been determined as "Generally Recognized As Safe" (GRAS) by FDA. See 21CFR184.1210. (CFR Title 21 Part 184 - - Direct food substances affirmed as generally recognized as safe).

Clean Air Act Section 112

(b) Hazardous Air Pollutants (HAPs)

: Not listed

Clean Air Act Section 602

Class I Substances

: Not listed

**Clean Air Act Section 602** 

**Class II Substances** 

: Not listed

DEA List I Chemicals

(Precursor Chemicals)

: Not listed

DEA List I Chemicals (Precursor Chemicals)

: Not listed

**SARA 302/304** 

**Composition/information on ingredients** 

No products were found.

SARA 304 RQ : Not applicable.

**SARA 311/312** 

Classification : Immediate (acute) health hazard

Delayed (chronic) health hazard

#### Composition/information on ingredients

Name	%	hazard	Sudden release of pressure		Immediate (acute) health hazard	Delayed (chronic) health hazard
Calcium oxide Crystalline silica, quartz		No. No.	-	No. No.	Yes. No.	No. Yes.

#### **SARA 313**

	Product name	CAS number	%
Form R - Reporting requirements	Not listed	-	-
Supplier notification	Not listed	-	-

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

#### State regulations

Massachusetts : The following components are listed: Calcium oxide; Crystalline silica, quartz

**New York**: None of the components are listed.

New Jersey : The following components are listed: Calcium oxide; Crystalline silica, quartz
Pennsylvania : The following components are listed: Calcium oxide; Crystalline silica, quartz

California Prop. 65

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

Ingredient name	Cancer	Reproductive	level	Maximum acceptable dosage level
Crystalline silica, quartz	Yes.	No.	No.	No.





# Section 15. Regulatory information

#### <u>Canada</u>

**Canadian lists** 

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

**International lists** 

**National inventory** 

Australia : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : All components are listed or exempted.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.

Taiwan : Not determined.

### Section 16. Other information

#### **Hazardous Material Information System (U.S.A.)**

Health: 3 \* Flammability: 0 Physical hazards: 1

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

#### **National Fire Protection Association (U.S.A.)**

Health: 3 Flammability: 0 Instability: 1

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

#### **History**

Date of issue mm/dd/yyyy : 04/15/2015

Version : 1

Prepared by : KMK Regulatory Services Inc.

Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships,





# **Section 16. Other information**

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

#### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

