

SAFETY DATA SHEET

HIGH CALCIUM QUICKLIME

Section 1. Identification

GHS product identifier

: HIGH CALCIUM QUICKLIME

Code

: Not available.

Other means of identification

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

Product type

: Solid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

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

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) : 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) (respiratory tract) -

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. (respiratory

tract)

Precautionary statements





Section 2. Hazards identification

Prevention

- : P201 Obtain special instructions before use.
 - P202 Do not handle until all safety precautions have been read and understood.
 - P280 Wear protective gloves. Wear eye or face protection. Wear protective clothing.
 - 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.

Response

- : 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

: Reacts violently with water, generating heat which can ignite combustible materials.

Section 3. Composition/information on ingredients

Substance/mixture

Mixture

Other means of identification

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

| Ingredient name | % | CAS number |
|-----------------|-----------------------|-------------------------|
| | 88 - 98 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.

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.





Section 4. First aid measures

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

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.





Section 4. First aid measures

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

Small spill

: Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large 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.

Conditions for safe storage, including any incompatibilities

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

Occupational exposure limits

| Ingredient name | Exposure limits |
|---------------------------------------|---|
| Calcium oxide | ACGIH TLV (United States, 3/2017). |
| | TWA: 2 mg/m ³ 8 hours. |
| | NIOSH REL (United States, 10/2016). |
| | TWA: 2 mg/m³ 10 hours. |
| | OSHA PEL (United States, 6/2016). |
| | TWA: 5 mg/m³ 8 hours. |
| Crystalline silica, respirable powder | OSHA PEL Z3 (United States, 6/2016). |
| | TWA: 250 mppcf 8 hours. Form: Respirable |
| | TWA: 10 mg/m³ 8 hours. Form: Respirable |
| | TWA: 5 mg/m3 Form: Respirable fraction |
| | TWA: 15 mg/m3 Form: Total dust |
| | NIOSH REL (United States, 10/2013). |
| | TWA: 0.05 mg/m³ 10 hours. Form: Respirable dust |
| | TWA: 5 mg/m3 Form: Respirable fraction |
| | TWA: 10 mg/m3 Form: Total dust |
| | OSHA PEL (United States, 6/2016). |
| | TWA: 50 μg/m³ 8 hours. Form: Respirable dust |
| | ACGIH TLV (United States, 3/2017). |
| | 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

Occupational exposure limits





Section 8. Exposure controls/personal protection

| Ingredient name | Exposure limits |
|---------------------------------------|---|
| Crystalline silica, respirable powder | CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 2 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 6/2017). TWA: 2 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 2 mg/m³ 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 2 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 4 mg/m³ 15 minutes. TWA: 2 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 6/2017). TWA: 0.025 mg/m³ 8 hours. Form: Respirable CA Quebec Provincial (Canada, 1/2014). TWAEV: 0.1 mg/m³ 8 hours. Form: Respirable dust CA Ontario Provincial (Canada, 1/2018). TWA: 0.1 mg/m³ 8 hours. Form: Respirable fraction CA Saskatchewan Provincial (Canada, 7/2013). TWA: 0.05 mg/m³ 8 hours. Form: Respirable fraction CA Saskatchewan Provincial (Canada, 7/2013). TWA: 0.05 mg/m³ 8 hours. Form: Respirable fraction CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 0.025 mg/m³ 8 hours. Form: Respirable particulate. |

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.



Section 8. Exposure controls/personal protection

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.

pН : 12.45 [Sat. soln.] at 25°C

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

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

(flammable) limits

: Not available.

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

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

Partition coefficient: n-

octanol/water

: Not available.

: Not available. **Auto-ignition temperature Decomposition temperature** : Not available. : Not available. **Viscosity** : Not available. Flow time (ISO 2431)

Section 10. Stability and reactivity

Reactivity

Reacts violently with strong acids. Reacts with water to form Calcium Hydroxide. The heat generated when mixed with water or moist air is sufficient enough to ignite surrounding materials such as paper, wood or cloth.

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 powdered metals, organic acid anhydrides, nitro-organic compounds, reactive phosphorous compounds, interhalogenated compounds.





Section 10. Stability and reactivity

Incompatible materials

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

Hazardous decomposition

: None.

products

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.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|---------------------------------------|------|------|---------------------------------|
| Crystalline silica, respirable powder | - | 1 | Known to be a human carcinogen. |

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

| Name | Category | Target organs |
|---------------|------------|------------------------------|
| Calcium oxide | Category 3 | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Target organs |
|---------------------------------------|------------|-------------------|
| Crystalline silica, respirable powder | Category 1 | respiratory tract |

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





Section 11. Toxicological information

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

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

effects

Carcinogenicity

: No known significant effects or critical hazards.

Potential delayed effects

: No known significant effects or critical hazards.

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

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated 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 | Chronic NOEC 100 mg/L Fresh water | Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling) | 46 days |

Persistence and degradability

There is no data available.

Bioaccumulative potential





Section 12. Ecological information

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

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

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 Classification | TDG Classification | 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. |

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.





Section 15. Regulatory information

U.S. Federal regulations

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.

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 II Chemicals (Essential Chemicals)

: Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ

: Not applicable.

SARA 311/312

Classification : 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) (respiratory tract) -

Category 1

Composition/information on ingredients

| Name | Classification |
|--|--|
| Calcium oxide Crystalline silica, respirable powder | SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory tract) (inhalation) - Category 1 |

SARA 313

There is no data available.

State regulations

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

New York : None of the components are listed.

New Jersey : The following components are listed: Calcium oxide; Crystalline silica, respirable powder

Pennsylvania : The following components are listed: Calcium oxide; Crystalline silica, respirable powder





Section 15. Regulatory information

California Prop. 65



WARNING: This product can expose you to Crystalline silica, respirable powder, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Canadian lists

Canada inventory (DSL

: All components are listed or exempted.

NDSL)

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

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 and the associated label are not required on SDSs or products leaving a facility 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 trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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.

Procedure used to derive the classification

| Classification | Justification |
|--|---------------------------------------|
| SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 | Expert judgment On basis of test data |
| CARCINOGENICITY (inhalation) - Category 1A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract | Expert judgment Calculation method |
| irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory tract) - | Calculation method |
| Category 1 | |

History

Date of issue mm/dd/yyyy : 02/15/2019 Date of previous issue : 03/30/2018

Version : 4

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





Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 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.

