ESSENTIAL CHEMISTRY. INNOVATIVE SOLUTIONS.

SAFETY DATA SHEET

Print Date: *April 1, 2019*

Section 1: Product & Company Information

Product Identifier: **Potassium Hydroxide, Flake**

Other Means of Identification
Product Number: *131250*

Recommended Use and Restrictions on Use
Recommended Use: *Intermediate in industrial manufacturing processes, such as manufacture of potassium fertilizers, potassium carbonate, or other potassium salts ad other organic chemicals. Alkaline batteries: detergents, soaps, dyeing, bleaching, and mercerizing cotton, paint and varnish removers, electroplating, photoengraving, and lithography; analytical chemistry and in organic synthesis; pharmaceutical acid, (alkalizer) catalyst for biodiesel production; chemical peeling of fruits and vegetables, absorption of CO2, SO3, and NO3 in gas streams; drilling mud additive; pH adjustment.*
Restrictions on Use: *Produced in a non-mercury cell process. Meets ANSI/AWWA B511-10 and food chemical Codex (FCC) test requirements; however, Dry Caustic Potash is not produced under all c GMP requirements as defined by the FDA. Customers should evaluate food grade requirements for c GMP based upon their requirements.*

Manufacturer / Importer / Supplier / Distributor Information
Company Name: *CORECHEM Inc.*
Address: *4320 Greenway Drive*
Knoxville, TN 37918
USA

Information Telephone Number: *1-865-524-4239*
Fax Number: *1-865-524-3375*
Website: *www.corecheminc.com*
Contact Person: *Regulatory Manager*
E-mail: *regulatory@corecheminc.com*

Emergency Phone Number: *Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)*

Section 2: Hazards Identification

GHS Hazard Classification(s)
In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)
Corrosive to Metals - 1

Health Hazard(s)
Acute Toxicity, Oral - 4
Corrosion/Irritation, Skin – 1A
(Corrosion)Damage/Irritation, Eye - 1

Environmental Hazard(s)
Not classified

Label Elements
Signal Word
DANGER

Hazard Symbol(s)

Hazard Statement(s)
H290: May be corrosive to metals.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.

Precautionary Statements
General
Not applicable.

Prevention
P234: Keep only in original container.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P264: Wash face, hands and any exposed skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P321: Specific treatment (see supplemental first aid instructions on this label).
P330: Rinse mouth.
P363: Wash contaminated clothing before reuse.
P390: Absorb spillage to prevent material damage.

Storage

P405: Store locked up.
P406: Store in corrosive resistant container with a resistant inner liner.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

None known.

Section 3: Composition/Information on Ingredients

Substance

Chemical Identity [2]	Common Name/Synonym(s)	CAS # [3]	Weight %	Impurity or Stabilizing Additive
Potassium Hydroxide	*Caustic Potash, KOH Dry, Caustic Potash – Anhydrous*	*1310-58-3*	*84 – 92%*	*No*

1. *Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.*
2. *Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.*
3. *"—"Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.*

Section 4: First-Aid Measures

General Information

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. IF INHALED: immediately call a POISEN CENTER OR PHYSICIAN.

Skin Contact

IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower. SPECIFIC TREATMENT: wash with lots of water. IF EXPOSED (Skin): Immediately call a POISON CENTER OR LISCENCED HEALTH CARE PROVIDER. Wash clothing before reuse. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. SPECIFIC TREATMENT: wash with lots of water. IF EXPOSED (eyes): immediately call a POISON CNETER OR LISCENCED HEALTH CARE PROVIDER.

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Call a POISON CNETER OR LISCENCED HEALTH CARE PROVIDER if you feel unwell.

Most important symptoms/effects, acute and delayed

Symptoms

Inhalation (Breathing): Respiratory System Effects: Exposure to airborne material may cause irritation, redness of upper and lower airways, coughing, laryngeal spasm and edema, shortness of breath, branchio-constriction and possible pulmonary edema. Severe and permanent scarring may occur. Aspiration of this material may cause the same conditions. Skin: Skin corrosion: When skin is exposed to solid product with moisture, may cause redness, itching, irritation, swelling, burns (first, second, or third degree) liquidation of the skin, and damage to the underlying tissues (deep and painful wounds.) Eye: Serious eye damage. Eye exposures may cause eyelid burns, conjunctivitis, corneal edema, corneal burns, corneal perforation, damage to internal contents of the eye, permanent visual defects, and blindness and/or loss of the eye. Ingestion (swallowing) Gastrointestinal system effect: Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tract. Signs and symptoms include vomiting, blood in vomit, drooling, difficulty swallowing, pain with swallowing, and abdominal pain. Hoarseness, cough, difficulty breathing are indicators of serious complications. Esophageal injury may occur in absence of oral burns. Orla burns are significant and further investigation is indicated.

Indication of immediate medical attention and special treatment needed

Hazards

Protect yourself by avoiding contact with this material. Use personal protective equipment. Refer to section 8 for specific personal protective equipment recommendations. Avoid contact with skin and eyes. Do Not Ingest. Do not breathe dust. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission.

Treatment

Medical observation and assessment is recommended for all ingestions, all eye exposures, and symptomatic inhalation and dermal exposures. If medical observation is required, monitor for a minimum of 4 hours for the onset or worsening of symptoms. For symptomatic ingestion, do not administer oral fluids and consider investigation by endoscopy, x-ray, or CT scan. Esophageal perforation, airway compromise, hypotension, and shock are possible. For prolonged exposures and significant exposures,

consider delayed injury to exposed tissues. If burn is present, treat as any thermal burn, after decontamination. There is no antidote. Treatment is supportive care. Surgical intervention may be required.

Section 5: Fire-Fighting Measures

General Fire Hazards

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. May react with chemically reactive metals such as aluminum, zinc, magnesium, copper, etc. to release hydrogen gas which can form explosive mixtures in air.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Use extinguishing agents appropriate for surrounding fire. Use water spray to keep containers cool. Avoid direct contact of this product with water as this can cause an exothermic reaction.

Unsuitable Extinguishing Media

No data available.

Specific Hazards Arising from the Chemical

May react with Chemically reactive metals such as aluminum, zinc, magnesium, copper, etc. to release hydrogen gas which can form explosive mixtures in the air. Mixing with water or other low pH materials may cause splattering and/or an exothermic reaction. May be corrosive to metals when wet. (material will absorb moisture from the atmosphere. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas will be generated.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Move container from fire area if it can be done without risk. Cool containers with water.

Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Avoid contact with skin, eyes and clothing. Do not breathe dust, fumes gas, mists, vapors or spray. Wear appropriate personal protective equipment recommended in section 8, exposure controls/ personal protection of the SDS. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to section 8, Exposure controls and personal protection. Refer to section 7, handling for additional precautionary measures. Take any precaution to avoid mixing with combustibles or incompatible materials. Ensure adequate ventilation, especially in confined areas.

Methods and Materials for Containment and Clean-Up

Recovery: in case of a spill or leak, stop the leak as soon as possible. Small and large spills: Contain spilled material if possible. After containment, collect the spilled material and transfer to a chemical waste area. Liquid material may be removed with a properly rated vacuum truck. The recovered product must be transferred to an appropriate and compatible container. (Stainless steel, PVC, Fiberglass or similar.) Seal and label the container. Neutralization: Neutralize residue with dilute acid and follow with a liberal covering of sodium bicarbonate or another acceptable drying agent. See section 13, disposal considerations, for additional information. Final Disposal: Shovel dry material into suitable container. Recycle or dispose according to regulations.

Notification Procedures

No data available.

Environmental Precautions

Keep out of water supplies and sewers. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Releases should be reported, if required t appropriate agencies.

Section 7: Handling and Storage

Precautions for Safe Handling

Avoid breathing dust. Do not get in eyes, on skin, or on clothing. Wash skin and contaminated clothing thoroughly after handling. Wear personal protective equipment as described in exposure controls /personal protection. (section 8) of the SDS. Keep equipment clean by immediately washing off any spill or accumulation of caustic potash. Extreme care must be exercised when adding anhydrous caustic potash to water or to a solution. It's high heat of solution generates large amounts of heat which can cause local boiling or spurting. When making solutions always add the caustic potash slowly to the water surface with constant stirring. Never add the water to the caustic potash.

Conditions for Safe Storage, including any Incompatibilities

Caustic potash is a corrosive chemical, which is normally handled in either steel, nickel, nickel alloys or certain types of plastic equipment. The specific material will depend on the conditions under which the material is being used. Do not store in aluminum container, or use aluminum fittings or transfer lines., as flammable hydrogen gas may be generated. Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Store in a cool, dry, well ventilated area. Keep separated from incompatible substances (see below or section 10 of the safety data sheet) Flammable liquids, water, acids, halogenated compounds, and prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc, or other sensitive metals or alloys. Do not store in an aluminum container, use aluminum fittings, or aluminum transfer lines. As aluminum will quickly corrode and flammable hydrogen gas will be generated. Mixing with water or other low pH material can cause splattering, and/ or exothermic reactions. May be corrosive to metals when wet. (material will absorb moisture from the atmosphere.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

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

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

General Information

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.

Eye/Face Protection

Wear chemical safety goggles with a face shield to protect against eye and skin contact when appropriate. Provide an emergency eyewash fountain and quick drench shower I the immediate work area.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves. If contact with forearms is likely, wear gauntlet style gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove. Protective material types: Butyl rubber, Natural rubber, Nitrile, polyvinyl chloride (PVC) Tychem, or tyvec.

Other

Wear protective clothing to minimize skin contact. When potential for contact with wet materials exists, wear Tychem or similar chemical protective suit. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as Tyvek. Always place pant legs over boosts. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods.

Respiratory Protection

Where risk assessment shows air-purifying respirators are appropriate, use a Niosh approved full-facepiece respirator with an N100,R100, or P100 filter. For an emergency or planned entry into unknown concentrations or IDLH conditions, use any self- contained breathing apparatus (SCBA) that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode OR any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus (e.g. airline with auxiliary escape pack.) A respiratory program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

Hygiene Measures

When using, do not eat, drink or smoke. 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. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

Section 9: Physical and Chemical Properties

Appearance:	
Physical State:	*Solid*
Color:	*White, Off-White*
Odor:	*Odorless*
Odor Threshold:	*Not applicable.*
pH:	*Not applicable.*
Melting Point/Freezing Point:	*380-406 °C*
Initial Boiling Point and Boiling Range:	*1327°C@1013 hPa*
Flash Point:	*Not applicable.*
Evaporation Rate *(butyl acetate=1)*:	*No data available.*
Flammability (solid, gas):	*Not applicable.*
Upper/Lower Limit on Flammability or Explosive Limits	
Flammability Limit – Upper:	*Not applicable.*
Flammability Limit – Lower:	*Not applicable.*
Explosive Limit – Upper:	*Not applicable.*
Explosive Limit – Lower:	*Not applicable.*
Vapor Pressure:	*60 mmHg @ 1013 °C*
Vapor Density *(air =1)*:	*Not applicable.*
Relative Density *(water=1)*:	*2.044 @ 20 °C*
Solubility(ies):	
Solubility in water:	*121 g/100g @ 25°C*
Solubility (other):	*No data available.*
Partition coefficient (n-octanol/water):	*No data available.*
Auto-Ignition Temperature:	*No data available.*
Decomposition Temperature:	*No data available.*
Viscosity:	*Not applicable.*
Hygroscopic:	*Yes*
Other Information:	
Molecular Weight:	*56.11*
Formula:	*KOH*

Section 10: Stability and Reactivity

Reactivity

Soluble in water, releasing heat sufficient to ignite combustibles. Reacts with acids, giving off heat.

Chemical Stability

Material is stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur. Mixing with water, acid, or incompatible materials may cause splattering and release of large amounts of heat. When moist, reacts with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces.

Conditions to Avoid

No data available.

Incompatible Materials

Flammable liquids, water, acids, halogenated compounds, and prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc, or other alkali sensitive metals or alloys.

Hazardous Decomposition Products

Thermal decomposition can lead to release of toxic/corrosive fumes of potassium oxide.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: *Toxic if swallowed. Corrosive. May cause severe mucus membrane burns and gastrointestinal burns. If swallowed, may pose a lung aspiration hazard during vomiting. Lung aspiration may result in chemical pneumonitis, pulmonary edema, and damage to lung tissue or death. Gastrointestinal system effects: Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur. Ingestion may result in corrosive injury to the upper gastrointestinal tract. Signs and symptoms include vomiting, blood in vomit, drooling, difficulty swallowing, pain when swallowing, and abdominal pain. Hoarseness, cough, difficulty breathing are indicators of serious complications. Esophageal injury may occur in the absence of oral burns. Oral burns are significant and further investigation is indicated. When in solution, this material will affect all tissues with which it comes in contact. The severity of the tissue damage is a function of its concentration, the length of tissue contact time, the local tissue conditions. After exposure there may be a time delay before irritation and other effects occur. This material is a strong irritant and is corrosive to the skin, eyes, and mucous membranes. This material may cause severe burns and permanent damage to any tissue with which It comes in contact.*

Inhalation: *Toxic if inhaled. May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. This material can be extremely destructive to the tissue of the mucus membranes and respiratory system.*

Skin Contact: *Corrosive. Causes severe skin burns. Prolonged or repeat skin exposures can result in dermatitis.*

Eye Contact: *Corrosive. Causes serious eye damage which can result in severe irritation, pain and burns, and permanent damage including blindness.*

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

Dry Caustic Potash: LD50 (Rat): 284 mg/kg

Dermal

No data available.

Inhalation

No Data Available

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

Skin Corrosion: When skin is exposed to solid product with moisture, may cause redness, itching, irritation, swelling, burns, (first, second or third degree) liquefaction of the skin, and damage to underlying tissues (deep and painful wounds.)

Serious Eye Damage/Eye Irritation

Serious eye damage. Eye exposures may cause eyelid burns, conjunctivitis, corneal edema, corneal burn, corneal perforation, damage to internal contents of the eye, permanent visual defects, and blindness and/or loss of the eye.

Respiratory/Skin Sensitization

Respiratory system effects: Exposure to airborne material may cause irritation, redness of upper and lower airways, coughing, laryngeal spasm and edema, shortness of breath, brachio-constriction, and possible pulmonary edema. Severe and permanent scarring may occur. Aspiration of this material may cause the same conditions.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

US. National Toxicology Program (NTP) Report on Carcinogens

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ Cell Mutagenicity

In Vitro

No data available.

In Vivo

No data available.

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity – Single Exposure

No data available.

Specific Target Organ Toxicity – Repeated Exposure

No data available.

Aspiration Hazard

No data available.

Other Effects

No data available.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

Dry Caustic Potash: LC50 (Gambusia affinis): 80 mg/l 96 h static

Aquatic Invertebrates

Dry Caustic Potash: EC50 (Daphnia magna, 48 h): 60 mg/l

Toxicity to Aquatic Plants

Dry Caustic Potash: EC50 (Selenastrum capricornutum, 96 h): 61 mg/l

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

This material is inorganic and not subject to biodegradation.

BOD/COD Ratio

No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Potassium hydroxide is a strong alkaline substance that dissociates completely in water to K+ and OH-. Considering its high-water solubility, potassium hydroxide is not expected to bioconcentrate in organisms. Log Pow is not applicable for an inorganic compound that dissociates.

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

Potassium hydroxide is not expected to be absorbed in soil due to its dissociation properties and high-water solubility.

Other Adverse Effects

This material has exhibited slight toxicity to terrestrial organisms. The risk that potassium hydroxide poses for the environment is essentially restricted to pH increase.

Section 13: Disposal Considerations

Disposal Instructions

Reuse or repackage if possible. Keep out of water supplies and sewers. May be subject to disposal regulations. Dispose of in accordance with all applicable regulations.

Contaminated Packaging

Dispose of container in accordance with applicable local, regional, national, and/or international regulations. Container rinsate must be disposed of in compliance with applicable regulations.

Section 14: Transportation Information

US Department of Transportation (DOT)

UN Number:	UN1813
UN Proper Shipping Name:	Potassium hydroxide, solid
Technical Name:	-
Hazard Class:	8
Subsidiary Hazard Risk:	-
Packing Group:	II
DOT Label/Placard Exemptions:	Not determined
Special Provisions:	IB8, IP2, IP4, T3, TP33
Packaging Exceptions:	49CFR 173.154
Packaging Non-Bulk:	49CFR 173.212
Packaging Bulk:	49CFR 173.240
Reportable Quantity (RQ):	1,000lb (454kg)
Marine Pollutant:	No
Poison Inhalation Hazard:	No

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.

Emergency Response Guidebook (ERG) #: 154

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

The following chemical(s) in this material are subject to reporting levels established by CERCLA:

Potassium Hydroxide (CAS# 1310-58-3)

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: No
Sudden Release of Pressure: No
Reactive: No
Acute (Immediate) Health Hazard: Yes
Chronic (Delayed) Health Hazard: No

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

This material does not contain any chemical(s) with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 3
Chronic Health Hazard: /
Flammability: 0
Physical Hazard: 1
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 3
Fire Hazard: 0
Reactivity Hazard: 1
Special: N/A
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

Prepared By: Regulatory Manager
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Revisions: 01

Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
EC50 - Effective concentration, 50%
IDHL – Immediately Dangerous to Life and Health
Kg – Kilogram
l – Liter
lb – Pound
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
ACGIH - American Conference of Industrial Hygienists
AIHA – American Industrial Hygiene Association
BEI - Biological Exposure Indices
CAS – Chemical Abstracts Service
DOT – US Department of Transportation
EPA – US Environmental Protection Agency
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association

mg - milligram
ml – milliliter
N/A – Not Applicable
N/D – Not Determined
PEL – Permissible Exposure Limit
REL – Recommended Exposure Limit
STEL – Short-term Exposure Limit
TWA - Time weighted average
IBC - Intermediate Bulk Container
IMDG - International Maritime Dangerous Goods
NIOSH – National Institute for Occupational Safety and Health
NTP – National Toxicology Program
OSHA – US Occupational Health and Safety Administration
SARA – US EPA Superfund Amendments and Reauthorization Act
TSCA – US EPA Toxic Substances Control Act
UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

Disclaimer

The information in this SDS was obtained from sources which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.