



Flow K™ Potassium Bicarbonate

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 06/15/2015 Date of issue: 06/15/2015 Supersedes Date: 01/23/2009

Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Substance

Product Name: Flow K™ Potassium Bicarbonate

Formula: KHCO₃

Synonyms: Potassium bicarbonate

Intended Use of the Product

Food use, buffering agent, pH adjuster.

Name, Address, and Telephone of the Responsible Party

Company

Church & Dwight
500 Charles Ewing Blvd
Ewing Township, NJ 08628
T 1-800-221-0453

www.churchdwight.com

Emergency Telephone Number

Emergency Number : For Medical Emergency: 1-888-234-1828, For Chemical Emergency: 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Not classified

Label Elements

GHS-US Labeling No labeling applicable

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Prolonged contact with dust can produce mechanical irritation.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Name : Flow K™ Potassium Bicarbonate

| Name | Product Identifier | % (w/w) | Classification (GHS-US) |
|-------------------------|--------------------|----------|-------------------------|
| Monopotassium carbonate | (CAS No) 298-14-6 | 60 - 100 | Not classified |
| Magnesium oxide (MgO) | (CAS No) 1309-48-4 | 0.1 - 1 | Not classified |

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200]. A range of concentration as prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.

Skin Contact: Brush off loose particles from skin. Rinse immediately with plenty of water. Obtain medical attention if irritation develops or persists.

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Eye Contact: Do not rub. Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Obtain medical attention if irritation persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention if a large amount is swallowed.

Most Important Symptoms and Effects Both Acute and Delayed

General: None expected under normal conditions of use.

Inhalation: Prolonged inhalation of dust may cause respiratory irritation.

Skin Contact: Skin contact with large amounts of dust may cause mechanical irritation.

Eye Contact: Contact may cause irritation due to mechanical abrasion.

Ingestion: Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: For surrounding fire. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable. Under fire conditions, hazardous fumes will be present.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Potassium oxides.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe dust or fumes. Avoid skin and eye contact. Handle in accordance with good industrial hygiene and safety practice.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Contain and collect as any solid.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Avoid generation of dust during clean-up of spills. Keep in suitable, closed containers for disposal. Contact competent authorities after a spill.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: When heated, material emits irritating fumes.

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Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Ensure all national/local regulations are observed.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container tightly closed. Store away from incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Specific End Use(s)

Food use, buffering agent, pH adjuster.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

| Particulates not otherwise classified (PNOC) (RR-00072-6) | | |
|---|-------------------------------------|--|
| USA ACGIH | ACGIH TWA (mg/m ³) | 3 mg/m ³ Respirable fraction 10 mg/m ³ Total Dust |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 5 mg/m ³ Respirable fraction 15 mg/m ³ Total Dust |
| Alberta | OEL TWA (mg/m ³) | 10 mg/m ³ (total) 3 mg/m ³ (respirable) |
| British Columbia | OEL TWA (mg/m ³) | 10 mg/m ³ (total dust) 3 mg/m ³ (respirable fraction) |
| Manitoba | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable particles, recommended) 3 mg/m ³ (respirable particles, recommended) |
| New Brunswick | OEL TWA (mg/m ³) | 3 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction) 10 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica, inhalable fraction) |
| Newfoundland & Labrador | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable particles, recommended) 3 mg/m ³ (respirable particles, recommended) |
| Nova Scotia | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable particles, recommended) 3 mg/m ³ (respirable particles, recommended) |
| Nunavut | OEL TWA (mg/m ³) | 5 mg/m ³ (respirable mass) 10 mg/m ³ (total mass) |
| Northwest Territories | OEL TWA (mg/m ³) | 5 mg/m ³ (respirable mass) 10 mg/m ³ (total mass) |
| Ontario | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable) 3 mg/m ³ (respirable) |
| Prince Edward Island | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable particles, recommended) 3 mg/m ³ (respirable particles, recommended) |
| Québec | VEMP (mg/m ³) | 10 mg/m ³ (including dust, inert or nuisance particulates; containing no Asbestos and <1% Crystalline silica-total dust) |
| Saskatchewan | OEL STEL (mg/m ³) | 20 mg/m ³ (insoluble or poorly soluble-inhalable fraction) 6 mg/m ³ (insoluble or poorly soluble-respirable fraction) |
| Saskatchewan | OEL TWA (mg/m ³) | 10 mg/m ³ (insoluble or poorly soluble-inhalable fraction) 3 mg/m ³ (insoluble or poorly soluble-respirable fraction) |
| Magnesium oxide (MgO) (1309-48-4) | | |
| Mexico | OEL TWA (mg/m ³) | 10 mg/m ³ (fume) |
| USA ACGIH | ACGIH TWA (mg/m ³) | 10 mg/m ³ (inhalable fraction) |
| USA ACGIH | ACGIH chemical category | Not Classifiable as a Human Carcinogen |

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| | | |
|-------------------------|-------------------------------------|--|
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 15 mg/m ³ (fume, total particulate) |
| USA IDLH | US IDLH (mg/m ³) | 750 mg/m ³ (fume) |
| Alberta | OEL TWA (mg/m ³) | 10 mg/m ³ (fume) |
| British Columbia | OEL STEL (mg/m ³) | 10 mg/m ³ (respirable dust and fume) |
| British Columbia | OEL TWA (mg/m ³) | 10 mg/m ³ (fume, inhalable) 3 mg/m ³ (respirable dust and fume) |
| Manitoba | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable fraction) |
| New Brunswick | OEL TWA (mg/m ³) | 10 mg/m ³ (fume) |
| Newfoundland & Labrador | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable fraction) |
| Nova Scotia | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable fraction) |
| Nunavut | OEL STEL (mg/m ³) | 20 mg/m ³ (fume) |
| Nunavut | OEL TWA (mg/m ³) | 10 mg/m ³ (fume) |
| Northwest Territories | OEL STEL (mg/m ³) | 20 mg/m ³ (fume) |
| Northwest Territories | OEL TWA (mg/m ³) | 10 mg/m ³ (fume) |
| Ontario | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable) |
| Prince Edward Island | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable fraction) |
| Québec | VEMP (mg/m ³) | 10 mg/m ³ (fume) |
| Saskatchewan | OEL STEL (mg/m ³) | 20 mg/m ³ (inhalable fraction) |
| Saskatchewan | OEL TWA (mg/m ³) | 10 mg/m ³ (inhalable fraction) |
| Yukon | OEL STEL (mg/m ³) | 10 mg/m ³ (fume) |
| Yukon | OEL TWA (mg/m ³) | 10 mg/m ³ (fume) |

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Safety glasses. Dust formation: dust mask.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wash contaminated clothing before reuse.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

| | |
|---------------------------|-------------------------------|
| Physical State | : Solid |
| Appearance | : White, crystalline powder |
| Odor | : None |
| Odor Threshold | : Not available |
| pH | : 8.2 |
| Evaporation Rate | : Not available |
| Melting Point | : 100 - 120 °C (212 - 248 °F) |
| Freezing Point | : Not available |
| Boiling Point | : Not applicable |
| Flash Point | : Not applicable |
| Auto-ignition Temperature | : Not available |
| Decomposition Temperature | : Not available |

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| | |
|---|--|
| Flammability (solid, gas) | : Not available |
| Lower Flammable Limit | : Not available |
| Upper Flammable Limit | : Not available |
| Vapor Pressure | : Not available |
| Relative Vapor Density at 20 °C | : Not available |
| Relative Density | : Not available |
| Specific gravity / density | : 62 lb/ft ³ +/- 2 |
| Specific Gravity | : Not available |
| Solubility | : 22 % in water@ 20 °C (68 °F) |
| Partition Coefficient: N-Octanol/Water | : Not available |
| Viscosity | : Not available |
| Explosion Data – Sensitivity to Mechanical Impact | : Not expected to present an explosion hazard due to mechanical impact |
| Explosion Data – Sensitivity to Static Discharge | : Not expected to present an explosion hazard due to static discharge |

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Decomposes slowly on exposure to water (moisture).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Temperatures above. avoid temperatures above 100°C (212°F).

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: None known. At high temperature may liberate toxic gases.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data:

| Flow K™ Potassium Bicarbonate | |
|-------------------------------|---------------|
| LD50 Oral Rat | 2825 mg/kg |
| LD50 Dermal Rabbit | > 2000 mg/kg |
| LC50 Inhalation Rat | > 4.8 mg/l/4h |

Skin Corrosion/Irritation: Not classified

pH: 8.2

Serious Eye Damage/Irritation: Not classified

pH: 8.2

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged inhalation of dust may cause respiratory irritation

Symptoms/Injuries After Skin Contact: Skin contact with large amounts of dust may cause mechanical irritation

Symptoms/Injuries After Eye Contact: Contact may cause irritation due to mechanical abrasion

Symptoms/Injuries After Ingestion: Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema

Chronic Symptoms: None expected under normal conditions of use

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data: Not available

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SECTION 12: ECOLOGICAL INFORMATION

Toxicity No additional information available

| Flow K™ Potassium Bicarbonate | |
|-------------------------------|-------------------------|
| LC50 Fish 1 | 1500 mg/l Bluegill |
| EC50 Daphnia 1 | 1200 mg/l |
| LC50 Fish 2 | 1300 mg/l Rainbow Trout |

Persistence and Degradability

| Flow K™ Potassium Bicarbonate | |
|-------------------------------|------------------|
| Persistence and Degradability | Not established. |

Bioaccumulative Potential

| Flow K™ Potassium Bicarbonate | |
|-------------------------------|------------------|
| Bioaccumulative Potential | Not established. |

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT Not regulated for transport

In Accordance with IMDG Not regulated for transport

In Accordance with IATA Not regulated for transport

In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal and International Regulations

| Monopotassium carbonate (298-14-6) |
|--|
| Listed on the AICS (Australian Inventory of Chemical Substances) |
| Listed on the Canadian DSL (Domestic Substances List) |
| Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) |
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |
| Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory |
| Listed on the Korean ECL (Existing Chemicals List) |
| Listed on NZIoC (New Zealand Inventory of Chemicals) |
| Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |
| Listed on INSQ (Mexican national Inventory of Chemical Substances) |

| Magnesium oxide (MgO) (1309-48-4) |
|--|
| Listed on the AICS (Australian Inventory of Chemical Substances) |
| Listed on the Canadian DSL (Domestic Substances List) |
| Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) |
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |
| Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory |
| Listed on the Korean ECL (Existing Chemicals List) |
| Listed on NZIoC (New Zealand Inventory of Chemicals) |
| Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |
| Listed on the Canadian IDL (Ingredient Disclosure List) |
| Listed on INSQ (Mexican national Inventory of Chemical Substances) |
| Listed on Turkish inventory of chemical |

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US State Regulations

Magnesium oxide (MgO) (1309-48-4)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

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WHMIS Classification | Uncontrolled product according to WHMIS classification criteria

Monopotassium carbonate (298-14-6)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification | Uncontrolled product according to WHMIS classification criteria

Magnesium oxide (MgO) (1309-48-4)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification | Uncontrolled product according to WHMIS classification criteria

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

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 06/15/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

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