SAFETY DATA SHEET

POTASSIUM BICARBONATE (ANHYDROUS ALL GRADES)

North America EN
SDS No.: M25047

Rev. Date: 06-Jul-2026
Rev. Num. 12

SECTION 1. CHEMICAL PRODUCT / COMPANY IDENTIFICATION

Company Identification:	Armand Products Company 500 Charles Ewing Boulevard Ewing, NJ 08628
Manufacturer:	Occidental Chemical Corporation Muscle Shoals Plant 1010 North Wilson Dam Road, Muscle Shoals, AL 35661
24-Hour Emergency Telephone Number:	1-800-733-3665 (USA); CANUTEC (Canada): 1-613-996-6666; CHEMTREC (within USA and Canada): 1-800-424-9300; CHEMTREC (outside USA and Canada): +1 703-527-3887; CHEMTREC Contract No: CCN16186
To Request an SDS:	MSDS@oxy.com or 1-972-404-3245
Customer Service:	1-800-522-0540 or 1-609-683-5900
Product Identifier:	**POTASSIUM BICARBONATE (ANHYDROUS ALL GRADES)**
Trade Name:	Potassium Bicarbonate USP ACS and Technical Grades Potassium Bicarbonate Food Grade
Synonyms:	Carbonic acid, monopotassium salt; KBC; Pot Bicarb; Potassium acid carbonate; Anhydrous potassium bicarbonate; Potassium hydrogen carbonate
Product Use:	Potassium bicarbonate is used as an agriculture soil treatment, anti-scaling agent, catalyst, adsorbent and absorbent, anti-freezing agent, binding agent, cement additive, cosmetic products (hair and skin care), corrosion inhibitor, deicer, detergent builder (washing powder and dishwasher tabs), flame retardant (fire extinguisher ingredient), food additive (baking agent, color preservative, nutrient supplement, processing aid), feedstuff additive, fertilizers, foaming / blowing agent (high-temperature polymer blowing agent, raising agent), filler, fixing agent, flotation agent, impregnation agent (for paper or cellulose), laboratory chemical, leavening agent, chemical intermediate, odor agent, oil drilling, pH regulating agent (e.g. buffer), pharmaceutical substance (processing aid and preparations), photo-chemical, plant protection agent, reagent in chemical synthesis, separating agent, tanning agent (for leather), used in aqueous coatings and adhesives, washing and cleaning products, water treatment, polymer compounds, toners

	paints and inks
Restrictions on Use (United States):.	If a food grade flow aid is required in product, care must be taken to ensure it is approved for food use. Contact Armand Technical Service for advice.
Restrictions on Use (EU):	There are no uses advised against identified in the Chemical Safety Report (CSR). However, uses other than those identified above should be evaluated on a case-by-case basis.
Other Global Restrictions on Use:	Other restrictions on use based on local, regional, state, or national regulations may exist and must be determined on a case-by-case basis.
Note:	- USP Grade potassium bicarbonate meets both the U.S. Pharmacopoeia and FDA chemical standards for use in drug products - ACS Grade potassium bicarbonate meets the chemical requirements set by the American Chemical Society for reagent quality chemicals - Technical Grade potassium bicarbonate is designed to meet the requirements of technical grade applications with a flow aid.

SECTION 2. HAZARDS IDENTIFICATION

OSHA REGULATORY STATUS: Health hazard classifications were performed using OSHA Hazard Communication 2024 (1910.1200) Appendix A and/or UN GHS Rev. 8 (2019). This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HEALTH CANADA HPR REGULATORY STATUS: This material is considered hazardous by the Health Canada Hazardous Products Act's Hazardous Products Regulations (HPR) (SOR/2015-17).

HAZARD CLASSIFICATION:

GHS: CONTACT HAZARD - EYE:	Category 2B - Causes eye irritation
SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE (SE):	Category 3 - May cause respiratory tract irritation
HAZARDS NOT OTHERWISE CLASSIFIED (HNOC):	ACUTE TOXICITY - ORAL: Category 5 (May be harmful if swallowed)

UNKNOWN ACUTE TOXICITY:

Unknown Acute Oral Toxicity:
100% of this product consists of ingredient(s) of known acute oral toxicity.
Unknown Acute Dermal Toxicity:
100% of this product consists of ingredient(s) of known acute dermal toxicity.
Unknown Acute Inhalation Toxicity:
100% of this product consists of ingredient(s) of known acute inhalation toxicity.

GHS SYMBOL: Exclamation mark

GHS SIGNAL WORD: WARNING

GHS HAZARD STATEMENTS:

GHS - Health Hazard Statement(s)
• Causes eye irritation
• May cause respiratory irritation

Additional Hazards - GHS Hazards Not Otherwise Classified (HNOC):
• ACUTE TOXICITY - ORAL: Category 5 (May be harmful if swallowed)

GHS - Precautionary Statement(s) - Prevention
• Avoid breathing dust
• Wash hands and exposed skin thoroughly after handling. Do not touch eyes
• Use only outdoors or in a well-ventilated area

GHS - Precautionary Statement(s) - Response
• IF INHALED: Get medical help if you feel unwell
• IF INHALED: Remove person to fresh air and keep comfortable for breathing
• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
• If eye irritation persists: Get medical help

GHS - Precautionary Statement(s) - Storage
• Store in a well-ventilated place. Keep container tightly closed
• Store locked up

GHS - Precautionary Statement(s) - Disposal
• Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations

See Section 11: TOXICOLOGICAL INFORMATION

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Systematic Chemical Name	Common name	CAS Number	Percent [%]
Potassium Bicarbonate 298-14-6	Potassium hydrogen carbonate	Pot Bicarb	298-14-6	97.5-100
Potassium Carbonate 584-08-7	Dipotassium Carbonate	Pot Carb	584-08-7	<2.5

SECTION 4. FIRST AID MEASURES

EYE CONTACT: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical help.

SKIN CONTACT: Not applicable.

INHALATION: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF INHALED: Get medical help if you feel unwell.

INGESTION: IF SWALLOWED: Get medical help.

MOST IMPORTANT SYMPTOMS/EFFECTS (ACUTE AND CHRONIC [DELAYED]):
Acute Symptoms/Effects:

Eye: Eye Irritation: Eye exposure may cause irritation, and redness to the eye lids, conjunctiva.
Skin: Skin contact may cause redness, or mild skin irritation. This material when applied to the skin of guinea pigs did not elicit any dermal sensitization reaction.
Inhalation (Breathing): Respiratory Irritation: Upper airway irritation, may cause cough, redness of mouth and upper airways.
Ingestion (Swallowing): Not classified as hazardous; however, ingestion of large amounts may cause gastrointestinal discomfort.

Chronic (Delayed) Symptoms/Effects:
No delayed / chronic effects have been identified.

PROTECTION OF FIRST-AID RESPONDERS: Avoid contact with skin and eyes. Do not breathe dust.

NOTES TO PHYSICIAN: This material dissociates into potassium and bicarbonate ions upon contact with water.

Interaction with Other Chemicals Which Enhance Toxicity: None known.

Medical Conditions Aggravated by Exposure: No information available.

SECTION 5. FIRE FIGHTING MEASURES

Fire Hazard: Product itself is non-combustible.

Explosive properties: This product is not combustible or explosive. May decompose under fire conditions emitting carbon dioxide.

Extinguishing Media: Use extinguishing agents appropriate for surrounding fire. The product is not combustible. In case of fire in the surroundings, use water spray, foam, CO_2, dry powder.

Unsuitable Extinguishing Media: High volume water jet.

Specific Hazards: Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors.

Unusual Hazards: High temperatures due to fire or mixing with acids can cause this material to decompose releasing carbon dioxide gas.

Fire Fighting: Move container from the fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Advice for Firefighters: Water used to extinguish fire should not enter drainage systems, soil, or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Contaminated fire-extinguishing water must be disposed of in accordance with the regulations issued by the appropriate local authorities. Fire residues should be disposed of in accordance with the regulations.

Hazardous Combustion Products: Oxides of carbon; Potassium oxides; Heating above 100 °C may cause dangerous levels of carbon dioxide gas to be present in the atmosphere

Sensitivity to Mechanical Impact: Not sensitive.

Sensitivity to Static Discharge: Not sensitive.

Lower Flammability Level (air): Not flammable.

Upper Flammability Level (air): Not flammable.

Flash point: Not flammable.

Auto-ignition Temperature: Not flammable.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid dust formation. Avoid breathing dust. Avoid contact with skin and eyes. Wash thoroughly after handling.

Personal Protective Equipment: Cleanup personnel must wear proper protective equipment. See Section 8 for information on personal protective equipment.

Emergency Procedures: Restrict access to the area until cleanup is complete. Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release.

Environmental Precautions: Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

Methods and Materials for Clean-up

Recovery: Shovel dry material into suitable container. Avoid dust formation.
Neutralization: Wash away remainder with plenty of water.
Final Disposal: Recycle or dispose according to regulations. For waste disposal, see SECTION 13.

SECTION 7. HANDLING AND STORAGE

Handling:

Precautions for Safe Handling:
Avoid breathing dust. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Do not reuse containers. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS.

Technical measures/precautions: No information available.

Prevention of contact: Avoid contact with incompatible materials.

Storage:

Safe Storage Conditions: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Material is very hygroscopic. Store in a cool, dry area. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet).

Technical measures: Refer to Sections 6 and 10 for additional information.

Incompatible Materials: Lime, Acids, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.

Packaging or Materials of Construction: Consider incompatible materials when selecting materials for packaging or materials of construction. Protect from damage and keep separated from incompatible substances.

Additional Information:

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

REGULATORY EXPOSURE LIMIT(S):
This product is regulated as a nuisance dust (Particles Not Otherwise Regulated (PNOR)). In the EU, the workplace exposure limit (WEL) for general respirable and inhalable dust is 4mg/m^3 and 10mg/m^3 respectively based on an eight-hour working shift.

Component	OSHA - Final PELs - Time Weighted Averages (TWAs)	OSHA - Final PELs - Short Term Exposure Limits	OSHA Final PEL Ceiling
Particles Not Otherwise Regulated (PNOR)	15 mg/m³ (Total dust) 5 mg/m³ (respirable dust)	-----	-----

OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit

NON-REGULATORY EXPOSURE LIMIT(S):
Listed below are the product components that have advisory (non-regulatory) occupational exposure limits (OEL's) established.

Component	ACGIH TWA	ACGIH STEL	ACGIH Ceiling	Skin Absorption - ACGIH	NIOSH RELs	AIHA WEELs	OSHA TWA (Vacated)	OSHA STEL (Vacated)	OSHA Ceiling (Vacated)
Particles Not Otherwise Regulated (PNOR)	10 mg/m³ (inhalable) 3 mg/m³ (respirable)	-----	-----	-----	-----	-----	-----	-----	-----
Particulates Not Otherwise Specified (PNOS)	10 mg/m³ (inhalable) 3 mg/m³ (respirable)	-----	-----	-----	-----	-----	-----	-----	-----

- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs: e.g., TWA, STEL, and/or Ceiling) for hundreds of chemicals, physical agents, and biological exposure indices.

ENGINEERING CONTROLS: Use closed systems when possible. Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

Eye and Face Protection: If eye contact is likely, wear chemical resistant safety goggles. Where splashing or spraying is possible, use a face-shield in addition to chemical protective goggles.

Skin and Body Protection: When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as Tyvek®. When potential for contact with wet material exists, wear Tychem® or similar chemical protective suit. Contaminated clothing should be removed and laundered before reuse.

Hand Protection: Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

Protective Material Types: Neoprene, Nitrile, Butyl rubber, Natural rubber.

Respiratory Protection: A NIOSH approved respirator with high efficiency particulate air (HEPA) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. When an air-purifying respirator

is not adequate for spills and/or emergencies of unknown concentrations, an approved self-contained breathing apparatus operated in the pressure demand mode is required. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

Other Protective Equipment: An emergency eyewash fountain and quick drench shower is recommended to be provided in the immediate work area.

HYGIENE MEASURES: Handle in accordance with good industrial hygiene and safety practices. Good hygiene practices include but are not limited to wearing suitable chemical resistant gloves; eye protection; washing hands and affected skin immediately after handling, before breaks, and at the end of the workday; regularly cleaning work area and clothing; etc.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless transparent crystal or white powder; monoclinic structure
Physical State:	Solid
Color:	White
Odor:	Odorless
Odor Threshold [ppm]:	No odor warning properties
Melting Point/Range:	212 - 392 °F (100 - 200 °C) (decomposes)
Freezing Point/Range:	Not applicable
Boiling Point °C	Decomposes before boiling
Evaporation Rate (ether=1):	Not applicable
Flammability (solid, gas):	Not flammable
Lower Flammability Level (air):	Not flammable
Upper Flammability Level (air):	Not flammable
Explosion limits:	Not applicable
Flash point:	Not flammable
Auto-ignition Temperature:	Not flammable
Decomposition Temperature:	212 - 392 °F (100 - 200 °C)
pH:	slightly basic in solution pH 8.2 for 1% solution at 25°C
Viscosity:	Not applicable to solids
Kinematic Viscosity:	No data available
Water Solubility:	23% @ 20 °C 362 g/L @ 25°C
Partition Coefficient (n-octanol/water):	-4.01 to -0.809 (Predicted)
Vapor Pressure:	5.30e-3 (Predicted)
Density:	68 lbs/ft^3
Relative Density:	2.17 g/cm3 @ 20°C
Relative Density/Specific Gravity (water=1):	No data available
Vapor Density (air=1):	No data available
Particle Size Distribution:	<1% through 20 mesh 50% through 80 mesh 70% through 100 mesh 95% through 200 mesh

Other Information

Molecular Formula:	$KHCO_3$
Molecular Weight:	100.12 g/mol
Explosive properties:	Not applicable
Oxidizing properties:	Not applicable
Bulk Density:	~68 lbs./ft^3
Surface Tension:	78 dyn/cm (Predicted)
Hygroscopic:	Yes

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal temperatures and pressures. Decomposition can occur at elevated temperatures. Rapid decomposition occurs at 177°C (350°F).

Reactivity: Not reactive under normal temperatures and pressures.

Possibility of Hazardous Reactions: Heating above approximately 100 °C may result in decomposition with evolution of carbon dioxide and water vapor. Gas generation may lead to pressure buildup in confined systems. Avoid contact with lime to prevent formation of corrosive potassium hydroxide (KOH).

Conditions to Avoid (e.g., static discharge, shock, or vibration): None known.

Incompatible Materials: Lime. Acids. Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.

Hazardous Decomposition Products: Potassium oxides; Oxides of Carbon; Heating above 100 °C may cause dangerous levels of carbon dioxide gas to be present in the atmosphere; Decomposes into potassium carbonate; water; carbon dioxide >100 °C

Hazardous Polymerization: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE AND POTENTIAL HEALTH EFFECTS:

ACUTE TOXICITY:

Eye contact: May cause temporary mild irritation.

Skin contact: Substance does not generally irritate and is only mildly irritating to the skin.

Inhalation: May cause respiratory tract irritation.

Ingestion: Ingestion of large amounts may cause gastrointestinal discomfort. After ingestion, potassium bicarbonate rapidly dissociates in the gastric juice to yield carbonate ions (HCO_3^- and CO_3^{-2}) and potassium ions (K^+), and at this stage, the minor alkalinity is neutralized by the stomach acid. For this reason undissociated potassium bicarbonate is not expected to be systemically available in the body under normal handling and use conditions and the systemic action of potassium bicarbonate must be discussed for its dissociation products, carbonate and potassium ions, separately. All ions involved, are naturally occurring essential ions in human beings effectively processed and regulated in the body by natural physiological mechanism.

CHRONIC TOXICITY:
No chronic effects are known.

SIGNS AND SYMPTOMS OF EXPOSURE:

Inhalation (Breathing): Respiratory Irritation: Upper airway irritation, may cause cough, redness of mouth and upper airways.

Skin: Skin contact may cause redness, or mild skin irritation. This material when applied to the skin of guinea pigs did not elicit any dermal sensitization reaction.

Eye: Eye Irritation: Eye exposure may cause irritation, and redness to the eye lids, conjunctiva.

Ingestion (Swallowing): Not classified as hazardous; however, ingestion of large amounts may cause gastrointestinal discomfort.

Interaction with Other Chemicals Which Enhance Toxicity: None known.

TOXICITY DATA:

PRODUCT TOXICITY DATA: POTASSIUM BICARBONATE.

LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
2825 mg/kg oral-rat LD50	>2000 gm/kg skin-rabbit LD50	> 4.88 mg/L (4.5 hr - Rat)

COMPONENT TOXICITY DATA: The data are from public databases sources

Component	Oral LD50	Dermal LD50	Inhalation LC50
Potassium Bicarbonate 298-14-6	No data available	>2000 mg/kg (Rabbit)	No data available
Potassium Carbonate 584-08-7	1870 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	No data available

EYE IRRITATION/CORROSION: Potassium Bicarbonate was tested for eye irritation in rabbits. Results showed iridial involvement in one rabbit and moderate to severe conjunctival irritation in six. By day 7, all eyes returned to normal. Irritation was graded using the Draize technique and observed at 1, 24, 48, 72, 96 hours, and on day 7. The study followed U.S. EPA Good Laboratory Practice Standards. This product is classified as causing eye irritation

(Category 2B) per GHS criteria.

SKIN IRRITATION/CORROSION: Potassium bicarbonate when applied for 24 hours under occlusion to the intact skin of rabbits induced no skin reactions.

Standard Draize (Skin): The average of the 4-, 24-, 48-, and 72-hour scores is 0.2

SKIN ABSORBENT/DERMAL ROUTE: NO.
The dermal absorption of potassium bicarbonate is expected to be low due to its ionic structure.

RESPIRATORY OR SKIN SENSITIZATION: Reliable, adequate and relevant data from a Buehler study with guinea pigs indicate that potassium bicarbonate does not induce skin sensitization. Further on, based on the structure of potassium bicarbonate, no sensitizing effects are expected.

CARCINOGENICITY: This product is not classified as a carcinogen by NTP, IARC or OSHA. There is no evidence for an intrinsic carcinogenicity of potassium bicarbonate relevant to humans obtained from the results of reliable long-term studies. Additional information from assessments carried out within the OECD work on investigation of high production volume chemicals on compounds which have a carbonate or a potassium moiety, also gave no indications on an intrinsic carcinogenic activity of potassium bicarbonate. Moreover, there is no evidence for a clastogenic or mutagenic potential of potassium bicarbonate from reliable studies on closely related read-across substances potassium carbonate or potassium chloride and in addition, based on chemistry considerations on the structure of potassium bicarbonate, no carcinogenicity is expected.

SPECIFIC TARGET ORGAN TOXICITY (Single Exposure): A sample of Potassium Bicarbonate was tested on rats after being ground for 24 hours. The rats were exposed for 4½ hours to a concentration of 4.88 mg/L. No mortalities were observed, and the test substance caused temporary clinical signs such as decreased activity and nasal discharge, which resolved within 24 hours. Product is classified as a Category 3 Respiratory Tract Irritant under GHS criteria.

SPECIFIC TARGET ORGAN TOXICITY (Repeated or Prolonged Exposure): The substance is not classified as a specific target organ toxicant upon repeated exposure per GHS criteria.

INHALATION HAZARD: The product is not classified as an inhalation hazard, according to criteria of the GHS.

INGESTION HAZARD: Not classified as hazardous; however, ingestion of large amounts may cause gastrointestinal discomfort.

GERM CELL/IN-VITRO MUTAGENICITY: No studies on genetic toxicity of potassium bicarbonate are available. Reliable studies on in vitro gene mutagenicity in bacteria and in vitro cytogenicity in mammalian cells on closely related read-across substances were negative and gave no indications on an intrinsic genotoxic activity. There is no evidence for a clastogenic or mutagenic potential of potassium bicarbonate relevant to humans obtained from the results of a chromosome aberration study and bacterial mutation assays with read-across substance potassium carbonate and two mammalian cell gene mutation studies from the read-across substance potassium chloride.

REPRODUCTIVE TOXICITY: There is no evidence for an intrinsic toxicity to reproduction of potassium bicarbonate from the results of reliable developmental toxicity and teratogenicity studies on mice and rats performed with the closely related read-across substance potassium carbonate, reliable repeated dose toxicity studies with macroscopic and histological examination of the male and female reproductive organs (epididymides, testes, ovaries, and uterus) performed with potassium bicarbonate itself and available information from assessments carried out within the OECD work on investigation of high production volume chemicals on compounds which have a carbonate or a potassium moiety. Further on, based on chemistry considerations on the structure of potassium bicarbonate and potassium

bicarbonate, no toxicity to reproduction is expected.

TOXICOKINETICS: After ingestion, potassium bicarbonate rapidly dissociates in the gastric juice to yield carbonate ions (HCO_3^- and CO_3^{-2}) and potassium ions (K^+), and at this stage, the minor alkalinity is neutralized by the stomach acid. For this reason undissociated potassium bicarbonate is not expected to be systemically available in the body under normal handling and use conditions and the systemic action of potassium bicarbonate must be discussed for its dissociation products, carbonate and potassium ions, separately. All ions involved, are naturally occurring essential ions in human beings effectively processed and regulated in the body by natural physiological mechanism.

METABOLISM: Potassium is the principal intracellular cation in most body tissues. The concentration of potassium ions is essential to conduct nerve impulses in specialized tissues like brain, heart and skeletal muscle, as well as to maintain normal renal function, acid-base balance, and cellular metabolic functions. The use of compounds containing bicarbonate is shown to produce the release of CO_2. This effect has been one of the problems of the use of potassium bicarbonate as it can cause eructation. The antacid potential of potassium bicarbonate is attained by increasing the gastrointestinal pH by neutralizing hydrochloric acid. The increase in pH results in suppression of the action of pepsin which is the enzyme that exacerbates ulceration due to the presence of acid.

BIOLOGICAL DISTRIBUTION: Potassium bicarbonate intake is done mainly in the small intestine in which approximately 90% of the potassium will be absorbed by passive diffusion. Approximately 90% of the exogenous potassium consumed is lost in the urine while the other 10% is excreted in feces and a very small amount can be found in the sweat. The excreted potassium is freely filtered by the glomerulus of the kidney.

PATHOGENICITY AND ACUTE INFECTIOUSNESS (ORAL, DERMAL, AND INHALATION): Not applicable.

ENDOCRINE DISRUPTOR: This product does not contain any known or suspected endocrine disruptors.

NEUROTOXICITY: Not considered a neurotoxin.

IMMUNOTOXICITY: No relevant information available.

SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY (EC, IC, and LC):

Component:	*Freshwater Fish:*	*Invertebrate Toxicity:*	*Algae Toxicity:*	*Other Toxicity:*
Potassium Bicarbonate 298-14-6 (97.5-100 %)	No data available	No data available	No data available	No data available
Potassium Carbonate 584-08-7 (<2.5 %)	No data available	*LC50 Ceriodaphnia dubia: 630 mg/L 48h	No data available	No data available

Aquatic Toxicity:
Potassium bicarbonate is not expected to have an intrinsic toxic activity to aquatic organisms.

Fish Toxicity:
LC50 Bluegill sunfish: 1500 mg/l (96 hr.)
LC50 Rainbow trout: 1300 mg/l (96 hr.).

Algae Toxicity:

No data available.
The study on algae growth inhibition does not need to be conducted if there are mitigating factors indicating that aquatic toxicity is unlikely to occur.

Invertebrate Toxicity:
1200 mg/L 48 hour(s) EC50 Daphnia magna (practically nontoxic).
LC50 Ceriodaphnia dubia: 630 mg/L 48h.
Long-term toxicity to aquatic invertebrates - No relevant information available.

Other Toxicity:
Toxicity tests on aquatic plants and sediment organisms as well as long-term toxicity tests are not available

FATE AND TRANSPORT:

PERSISTENCE: This material is believed not to persist in the environment.

BIODEGRADATION: Potassium bicarbonate dissolves and dissociates immediately into K+ and inorganic carbon species in aquatic ecosystems including soil and sediment pore water. Both potassium and inorganic carbon are ubiquitously present in the environment. Biodegradation is not relevant because potassium bicarbonate is an inorganic substance.

BIOCONCENTRATION: This substance is not expected to bioaccumulate due to its high-water solubility and dissociation into naturally occurring ions.

BIOACCUMULATIVE POTENTIAL: Potassium bicarbonate is very soluble in water. Therefore, the substance does not accumulate in lipophilic tissues of living organisms. In aquatic and terrestrial ecosystems, potassium bicarbonate will rapidly dissociate to potassium cation and inorganic carbon species. These are naturally-occurring ions in the environment. In animal and plant organisms, the mass balance of carbonate and potassium will be regulated by physiological mechanisms to ensure appropriate cell concentrations for natural life processes.

MOBILITY IN SOIL: Due to the ionic character and the high water solubility of potassium bicarbonate, no sorption onto soil and sediment organic matter occurs.

ADDITIONAL ECOLOGICAL INFORMATION: No information available.

Persistent, Bioaccumulative, and Toxic (PBT) and Very Persistent and Very Bioaccumulative (vPvB) Assessment: Not applicable.
Potassium Bicarbonate will rapidly dissolve and dissociate in water. Therefore, potassium bicarbonate does not fulfil the P criterion. Bioaccumulation is not relevant for potassium bicarbonate, therefore, potassium bicarbonate does not meet the B criterion of the PBT criteria. The lowest reported LC50 for freshwater and marine organisms are above the cut-off value of 0.1 mg/L. Therefore, potassium bicarbonate does not meet the T criterion in the PBT assessment.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from material:
Reuse or reprocess, if possible. May be subject to disposal regulations. Measure the pH of solutions to determine

disposal restrictions. Dispose in accordance with all applicable regulations.

Container Management:
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.

Contaminated Material:
Contaminated packaging should be disposed of as unused product.

SECTION 14. TRANSPORT INFORMATION

LAND TRANSPORT

U.S. DOT 49 CFR 172.101:
Status: Not Regulated
CANADIAN TRANSPORTATION OF DANGEROUS GOODS:
Status: Not Regulated

MARITIME TRANSPORT (IMO / IMDG)

Status - IMO / IMDG: Not Regulated.

UN NUMBER: Not applicable
PROPER SHIPPING NAME: Not applicable
HAZARD CLASS / DIVISION: Not applicable
Packing Group: Not applicable

AIR TRANSPORT (ICAO / IATA)

Status - ICAO/IATA: Not Regulated

Special Instructions CAO: IATA Certificate for shipping personnel is required

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

SECTION 15. REGULATORY INFORMATION

U.S. REGULATIONS

OSHA REGULATORY STATUS:
Health hazard classifications were performed using OSHA Hazard Communication 2024 (1910.1200) Appendix A and/or UN GHS Rev. 8 (2019). This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):
Not regulated.

SARA EHS Chemical (40 CFR 355.30)
Not regulated.

SARA HAZARD CATEGORIES ALIGNED WITH GHS (2018):
Non-hazardous
Health Hazard - Serious eye damage or eye irritation
Health Hazard - Specific Target Organ Toxicity (STOT) Single Exposure (SE)

EPCRA SECTION 313 (40 CFR 372.65):
Not regulated.

DEPARTMENT OF HOMELAND SECURITY (DHS)- Chemical Facility Anti-Terrorism Standards (6 CFR 27):
No components in this material are regulated under DHS

OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):
Not regulated.

FDA: This material has Generally Recognized As Safe (GRAS) status under specific U.S. Food and Drug Administration (FDA) regulations. Additional information is available from the Code of Federal Regulations, which is accessible on the FDA's website. Only food grade product is guaranteed to be produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the FDA. Food grade product is produced in a facility that is accredited as a Safe Quality Food (SQF) Level 2 Facility, certified under the Global Food Safety Initiative (GFSI), and meets the Food Chemical Codex (FCC) requirements.

EPA'S CLEAN WATER AND CLEAN AIR ACTS:
Component(s) not listed on impacted regulatory lists.

NATIONAL INVENTORY STATUS

U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA):

Component	TSCA Inventory	TSCA ACTIVE LIST	TSCA 12(b)	TSCA/Section 4	TSCA/Section 5	TSCA/Section 6	TSCA/Section 8
Potassium Bicarbonate 298-14-6 (97.5 - 100 %)	Listed	ACTIVE	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Potassium Carbonate 584-08-7 (< 2.5 %)	Listed	ACTIVE	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

TSCA 12(b):
• This product is not subject to export notification

Canadian Chemical Inventory: All components of this product are listed on either the DSL or the NDSL.

Component	DSL	NDSL
Potassium Bicarbonate 298-14-6 (97.5 - 100)	Listed	-----
Potassium Carbonate 584-08-7 (< 2.5)	Listed	-----

STATE REGULATIONS

There are no applicable state regulations for this product or its components.

California Proposition 65:
This product is not listed on the California Governor's current list of Carcinogens, Reproductive Toxicants, and/or Candidate Carcinogens (Proposition 65), but it may contain trace amounts of impurities that are listed. For additional information, contact Occidental Chemical Corporation Customer Service (1-800-752-5151 or 1-972-404-3700).

Component	U.S. - California - Proposition 65 - Carcinogens List	CA. Prop. 65 Teratogen	California Proposition 65 CRT List - Male reproductive toxin:	California Proposition 65 CRT List - Female reproductive toxin:	Massachusetts Right to Know Hazardous Substance List	Rhode Island Right to Know Hazardous Substance List
Potassium Bicarbonate 298-14-6 (97.5 - 100 %)	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Potassium Carbonate 584-08-7 (< 2.5 %)	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Component	New Jersey Right to Know Hazardous Substance List	New Jersey Special Health Hazards Substance List	New Jersey - Environmental Hazardous Substance List	Pennsylvania Right to Know Hazardous Substance List	Pennsylvania Right to Know Special Hazardous Substances	Pennsylvania Right to Know Environmental Hazard List
Potassium Bicarbonate	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Potassium Carbonate	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of the Workplace Hazardous Materials Information System (WHMIS 2015) which includes the amended Hazardous Products Act (HPA) and the Hazardous Product Regulations (HPR).

Component	Canada - CEPA - Schedule I - List of Toxic Substances	Canada - NPRI	Canada - CEPA - Greenhouse Gases (GHG) Subject to Mandatory Reporting	Canadian Chemical Inventory:	NDSL
Potassium Bicarbonate 298-14-6 (97.5 - 100)	Not listed	Not Listed	Not Listed	Listed on inventory	Not Listed
Potassium Carbonate 584-08-7 (< 2.5)	Not listed	Not Listed	Not Listed	Listed on inventory	Not Listed

SECTION 16. OTHER INFORMATION

Prepared by: Occidental Chemical Corporation - HES&S Product Stewardship Department

Rev. Date: 06-Jul-2026

Reason for Revision:
• Added or revised Precautionary Statements: SEE SECTION 2
• SDS format adopts revisions to the Hazardous Products Regulations (HPR) to include revisions to “Section 9: Physical and chemical properties” and ensures classification with at a minimum the seventh revised edition of GHS

and certain elements from the eighth revised edition (Revision 8)
• SDS format adopts revisions to the OSHA's 2024 Hazard Communication Rule 29CFR 1910.1200 and ensures classification with at a minimum the seventh revised edition of GHS and certain elements from the eighth revised edition (Revision 8)

IMPORTANT:
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OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Safety Data Sheet available to your employees.

End of Safety Data Sheet