

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE



Version 1 Date of compilation: 13/05/2021
Version 2 (replaces version 1) Revision date: 11/10/2023

Page 1 of 11
Print date: 12/10/2023

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name:	POTASSIUM BICARBONATE
Product Code:	ALQ0019
Chemical Name:	Potassiumhydrogencarbonate; potassium bicarbonate
IUPAC name:	Potassium Hydrogen Carbonate
CAS No:	298-14-6
EC No:	206-059-0
Product type:	Substance, mono-constituent, inorganic
Chemical formula:	KHCO ₃
Molecular weight:	100.12 g/mol

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

- industrial use
- professional use.
- laboratory
- cosmetics
- pH regulator
- chemical synthesis
- raw material

Uses advised against:

All uses not specified in this section or in section 7.3. Due to lack of experience or data, the supplier cannot approve other unspecified use.

1.3 Details of the supplier of the safety data sheet.

Company:	ALQUERA CIENCIA SL
Address:	C/ Vilar de Donas 9
City:	28050 - Madrid
Province:	Madrid (Spain)
Telephone:	0034 620 88 75 97
E-mail:	info@alquera.com
Web:	https://www.alquera.com

1.4 Emergency telephone number: 0034 620 88 75 97 (SDS) (Only available during office hours; Monday-Friday; 09:00-18:00)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.

The product is not classified as hazardous within the meaning of Regulation (EC) No 1272/2008.

2.2 Label elements.

The product is not classified as dangerous according to Regulation (EC) No 1272/2008.

2.3 Other hazards.

The substance is not PBT.

The substance is not vPvB.

The product does not meet the criteria to be considered PBT or vPvB according to Regulation (EC) No. 1907/2006 (REACH), Annex XIII.

Substance does not have endocrine disrupting properties.

PBT: Persistent Bioaccumulative and Toxic.

vPvB: very Persistent and very Bioaccumulative.

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE

Version 1 Date of compilation: 13/05/2021

Version 2 (replaces version 1) Revision date: 11/10/2023



Page 2 of 11

Print date: 12/10/2023

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Mono-constituent.

Chemical Name: Potassiumhydrogencarbonate; potassium bicarbonate
IUPAC name: Potassium Hydrogen Carbonate
CAS No: 298-14-6
EC No: 206-059-0
Chemical formula: KHCO_3
Degree of purity: $\geq 99\%$

Identifiers	Name	Concentration	(*)Classification - Regulation (EC) No 1272/2008	
			Classification	Specifics concentration limits and Acute toxicity estimate
CAS No: 298-14-6 EC No: 206-059-0	Potassiumhydrogencarbonate	99 - 100 %	-	-

3.2 Mixtures.

Not applicable.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

Due to the composition and type of the substances present in the product, no particular warnings are necessary.

Inhalation.

If breathing stops, seek emergency medical attention. Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.

Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 20 minutes while pulling eyelids up and seek medical assistance. Do not let the person to rub the affected eye.

Skin contact.

Remove contaminated clothing.

Ingestion.

Keep calm. NEVER induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed.

No known acute or delayed effects from exposure to the product.

4.3 Indication of any immediate medical attention and special treatment needed.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

SECTION 5: FIREFIGHTING MEASURES.

5.1 Extinguishing media.

Suitable extinguishing media:

Extinguisher powder or CO_2 . In case of more serious fires, also alcohol-resistant foam and water spray, accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE

Version 1 Date of compilation: 13/05/2021

Version 2 (replaces version 1) Revision date: 11/10/2023



Page 3 of 11

Print date: 12/10/2023

5.2 Special hazards arising from the substance or mixture.

Special risks.

Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product not classified as hazardous for the environment, avoid spillage as much as possible.

6.3 Methods and material for containment and cleaning up.

Contain, collect spillage, clean the area immediately with a suitable decontaminant.

Deposit the dry material with a shovel in a suitable container.

Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations (see section 13).

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

The product does not require special handling measures, the following general measures are recommended:

For personal protection, see section 8.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

Recommendations to prevent toxicological risks:

After handling, wash hands with soap and water.

7.2 Conditions for safe storage, including any incompatibilities.

The product does not require special storage measures. As general storage measures, sources of heat, radiation, electricity and contact with food should be avoided.

Keep away from oxidizing agents and from highly acidic or alkaline materials.

Store the containers between 5 and 30 ° C, in a dry and well-ventilated place.

Store according to local legislation. Observe indications on the label. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

The product is not affected by Directive 2012/18/EU (SEVESO III).

Storage class 10 - 13 (Other liquids and solids)

7.3 Specific end use(s).

See section 1.2. Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE



Version 1 Date of compilation: 13/05/2021
Version 2 (replaces version 1) Revision date: 11/10/2023

Page 4 of 11
Print date: 12/10/2023

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values.

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

The environmental limit value for general dust (INSST, Spain) is:

- VLA-ED particles not otherwise specified. Inhalable fraction 10 mg/m³
- VLA-ED Particulates not otherwise specified. Respirable fraction 3 mg/m³

This is a dusty product. The workplace exposure limit for dust (USA-OSHA) is:

- 8-hour TWA inhalable dust: 10 mg/m³
- 8-hour TWA respirable dust: 5 mg/m³

The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Individual protection measures, such as personal protective equipment As a preventative measure it is recommended to use basic Personal Protective Equipment, in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

Respiratory protection

The use of protective equipment will be necessary in case of mist formation or in case of exceeding occupational exposure limits if they exist (see section 8.1). Wear respiratory protection in case of spray application/dust generation. Wear respiratory protection in case of prolonged exposure.

Specific protection for the hands

Replace the gloves at any sign of deterioration. Penetration time >480 min (permanent contact protection). The breakthrough time of the selected gloves should be in accordance with the intended period of use. Various factors (e.g. temperature) mean that in practice the breakthrough time of chemical-resistant protective gloves is significantly shorter than the EN374 standard. An increase in temperature due to hot substances, body heat, etc. and a weakening of the effective thickness due to expansion can lead to a significant shortening of the breakthrough time. For the selection of a specific type of glove for a given application, with a certain duration, should take into account (but not be limited to) relevant factors in the workplace, such as: other chemicals to be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential allergies to the glove material itself, etc.... Due to the wide variety of circumstances and possibilities, the instruction manual of the glove manufacturers should be taken into account. Gloves should be replaced immediately if signs of degradation are observed.

Additional emergency measures

Emergency shower: ANSI Z358-1, ISO 3864-1:2011, ISO 3864-4:2011

Eyewash stations: DIN 12 899, ISO 3864-1:2011, ISO 3864-4:2011

Recommendations to prevent toxicological risks:

Do not eat, drink or smoke during handling. After handling, wash hands with soap and water.

**Advice on personal protection is valid for high levels of exposure.
Choose personal protection adapted to the risks of exposure.**

SAFETY DATA SHEET




(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE



Version 1 Date of compilation: 13/05/2021
Version 2 (replaces version 1) Revision date: 11/10/2023

Page 5 of 11
Print date: 12/10/2023

Concentration:	100 %				
Uses:	- industrial use/professional use. - laboratory - cosmetics - pH regulator - chemical synthesis - raw material				
Breathing protection: If the recommended technical measures are observed, no individual protection equipment is necessary.					
PPE:	Filter mask for protection against gases and particles.				
Characteristics:	«CE» marking, category III. The mask must have a wide field of vision and an anatomically designed form in order to be sealed and watertight.				
CEN standards:	EN 136, EN 140, EN 405				
Maintenance:	Should not be stored in places exposed to high temperatures and damp environments before use. Special attention should be paid to the state of the inhalation and exhalation valves in the face adaptor.				
Observations:	Read carefully the manufacturer's instructions regarding the equipment's use and maintenance. Attach the necessary filters to the equipment according to the specific nature of the risk (Particles and aerosols: P1-P2-P3, Gases and vapours: A-B-E-K-AX), changing them as advised by the manufacturer.				
Filter Type needed:	P1 (white)				
Hand protection: If the product is handled correctly, no individual protection equipment is necessary.					
PPE:	Protective gloves against chemicals.				
Characteristics:	«CE» marking, category III.				
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420				
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.				
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.				
Material:	PVC (Polyvinyl Chloride), butyl, nitrile	Breakthrough time (min.):	> 480	Material thickness (mm):	0,35
Eye protection: If the product is handled correctly, no individual protection equipment is necessary.					
PPE:	Protective goggles with built-in frame.				
Characteristics:	«CE» marking, category II. Eye protector with built-in frame for protection against dust, smoke, fog and vapour.				
CEN standards:	EN 165, EN 166, EN 167, EN 168				
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.				
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.				
Skin protection: If the product is handled correctly, no individual protection equipment is necessary.					
PPE:	Protective clothing.				
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.				
CEN standards:	EN 340				
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.				
Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.				
PPE:	Work footwear.				
Characteristics:	«CE» marking, category II.				
CEN standards:	EN ISO 13287, EN 20347				
Maintenance:	This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.				
Observations:	Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident				

- Continued on next page. -

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE



Version 1 Date of compilation: 13/05/2021

Version 2 (replaces version 1) Revision date: 11/10/2023

Page 6 of 11

Print date: 12/10/2023

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance:

Physical state (20°C): Solid – Dust.

Colour: white.

Odour: odorless.

Odour threshold: Not applicable/Not available due to the nature/properties of the product.

Volatility:

Boiling point or initial boiling point and boiling range: ≥ 100 °C.

When heat above 100 °C, potassium hydrogencarbonate decomposes into potassium carbonate, water and carbon dioxide.

Between 100 and 110 °C a weight loss of about 4% can be noticed. Between 175 and 185°C the conversion into K_2CO_3 is complete after 6 hours. Between 200 and 210°C the conversion is complete after only 2 hours.

Vapour pressure:

According to REACH Annex XI, 2. the determination of the vapour pressure does not need to be determined if the measurement is technically not feasible. Potassium hydrogencarbonate is an anorganic ionic solid and the vapour pressure of the whole substance is expected to be lower than it is technically possible to be measurable.

Relative vapour density (air=1): N.A.

Evaporation rate: N.A.

Flammability:

Flammability: Non-flammable. Non-combustible.

According to REACH Regulation (Annex XI, 1.), a study on flammability does not need to be conducted if the available data are sufficient for assessment. Potassium hydrogencarbonate is known to be not pyrophoric and not flammable in contact with water.

Lower explosion limit: N.A.

Upper explosion limit: N.A.

Flash point: According to REACH Regulation (Annex VII, 7.9, column II), the study on the flash point does not need to be done as the chemical is inorganic.

Auto-ignition temperature: According to the REACH Regulation (Annex VII, 7.12), the study does not need to be conducted as preliminary results exclude self-heating of the substance up to 400°C (Annex VII, column II adaptation).

Product description:

Melting point: ≥ 100 °C.

When heat above 100 °C, potassium hydrogencarbonate decomposes into potassium carbonate, water and carbon dioxide.

Between 100 and 110 °C a weight loss of about 4% can be noticed. Between 175 and 185°C the conversion into K_2CO_3 is complete after 6 hours. Between 200 and 210°C the conversion is complete after only 2 hours.

Freezing point: N.A.

Decomposition temperature: 100-120 °C.

When heat above 100 °C, potassium hydrogencarbonate decomposes into potassium carbonate, water and carbon dioxide.

Between 100 and 110 °C a weight loss of about 4% can be noticed. Between 175 and 185°C the conversion into K_2CO_3 is complete after 6 hours. Between 200 and 210°C the conversion is complete after only 2 hours.

pH: 8.2 (10%)

Kinematic viscosity: Not applicable. Viscosity is only relevant for liquids.

Dynamic viscosity: Not applicable. Viscosity is only relevant for liquids.

Solubility: Very soluble in water. Potassium hydrogen carbonate is not soluble in ethanol.

Hydrosolubility: very soluble in water, 224-362 g/L 25 °C (ECHA).

Solubility: soluble in water. Potassium hydrogencarbonate is not soluble in ethanol.

Liposolubility: Not applicable/Not available due to the nature/properties of the product

Partition coefficient n-octanol/water (log value): According to REACH Regulation (Annex VII, 7.8, column II), the study on the n-octanol/water partition coefficient does not need to be done as the chemical is inorganic.

Relative density (water=1): 2.17.

Particle characteristics:

Particle size: > 0.1 mm (estimated based on similar products).

N.A.= Not Available/Non- Applicable due to the nature of the product, not providing information property of its hazards

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE



Version 1 Date of compilation: 13/05/2021
Version 2 (replaces version 1) Revision date: 11/10/2023

Page 7 of 11
Print date: 12/10/2023

9.2 Other information:

Explosive properties: There are no chemical groups associated with explosive properties present, therefore, according to REACH, Annex VII, 7.11, column 2, the study is not necessary.

Oxidizing properties: non-oxidizing. Based on the chemical structure, the product is incapable of exothermically reacting with combustible materials. According to REACH, Annex VII, 7.13, column 2, the study does not need to be carried out.

Drop point: N.A.

Scintillation: N.A.

% Solids: 100%

Dissociation constant:

Potassium hydrogencarbonate dissociates in water completely to K^+ and inorganic carbon (CO_3^{2-} ions in equilibrium with HCO_3^- and CO_2). The dissociation constants of CO_2 in water systems are 6.35 (pK1) and 10.33 (pK2) at 25°C in fresh water and 5.86 (pK1) and 8.95 (pK2) at 25°C in seawater ($CO_2 (solv) + H_2O \rightleftharpoons H_2CO_3 \rightleftharpoons HCO_3^- \rightleftharpoons CO_3^{2-}$).

N.A.= Not Available/Non- Applicable due to the nature of the product, not providing information property of its hazards

The data corresponding to the product specifications can be found in the product technical data sheet. For further data on physical and chemical properties related to safety and environment, see sections 7 and 12.

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity under the recommended handling and storage conditions (see section 7). Potassium hydrogencarbonate reacts with acids to form carbon dioxide.

10.2 Chemical stability.

Hygroscopic.

If heated it decomposes ≥ 100 °C.

Unstable in contact with:

- Acids.
- Bases

10.3 Possibility of hazardous reactions.

Neutralization may occur in contact with acids.

10.4 Conditions to avoid.

Avoid any improper handling.

Avoid contact with acids.

10.5 Incompatible materials.

Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

10.6 Hazardous decomposition products.

Depending on the conditions of use, the following products may be generated:

- Corrosive vapors or gases, carbon monoxide, carbon dioxide, carbon oxides, potassium oxides.

SECTION 11: TOXICOLOGICAL INFORMATION.

Product classification has been carried out using the conventional calculation method of Regulation (EC) No 1272/2008(CLP)/ extrapolation with similar products.

11.1 Information on hazard classes as defined in Regulation (EC) N° 1272/2008.

Toxicological information.

Name	Acute toxicity			
	Type	Test	Kind	Value
Potassiumhydrogencarbonate	Oral	LD50	Rat	2000 mg/kg bw [1]
		[1] REACH registration study results (ECHA)		
CAS No: 298-14-6 EC No: 206-059-0	Dermal	LD50	Rabbit	2000 mg/kg bw [1]
		[1] REACH registration study results (ECHA)		
	Inhalation	LC50	Rat	4.88 mg/l air (4,5 h) [1]
		[1] REACH registration study results (ECHA)		

- Continued on next page. -

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE



Version 1 Date of compilation: 13/05/2021
Version 2 (replaces version 1) Revision date: 11/10/2023

Page 8 of 11
Print date: 12/10/2023

Products in powder form: Exposure to airborne concentrations above legal or recommended exposure limits may cause irritation of the nose, throat or lungs.

Although the product is non-irritating, direct contact with eyes may cause discomfort characterized by tearing or redness from mechanical/abrasive contact.

Mechanical/abrasive skin contact may cause redness.

a) acute toxicity;

Not conclusive data for classification.

There is no evidence on an intrinsic acute toxic activity of potassium hydrogencarbonate after oral, dermal or inhalation exposure. In rats, the oral and dermal In addition, absence of intrinsic toxic properties of potassium hydrogencarbonate by oral exposure of humans is generally taken for granted, which is proved by its long-standing safe use in food and pharmaceuticals and its GRAS (generally recognized as safe) status in the USA (ECHA).

b) skin corrosion/irritation;

Not conclusive data for classification.

Product in powder form: may cause irritation due to mechanical abrasion.

Reliable studies on skin and eye irritation performed according to US guideline (FDA, Appraisal of the Safety of Chemicals in Food, Drugs and Cosmetics, 1959) are available. Potassium hydrogencarbonate when applied for 24 hours under occlusion to the intact skin of rabbits induced no skin reactions at all.

c) serious eye damage/irritation;

Not conclusive data for classification.

Product in powder form: may cause irritation due to mechanical abrasion.

Reliable studies on skin and eye irritation performed according to US guideline (FDA, Appraisal of the Safety of Chemicals in Food, Drugs and Cosmetics, 1959) are available.

In the eye irritation study potassium hydrogencarbonate induced transient slight irritation. Mean eye irritation scores were less than those triggering a classification according to CLP Regulation (EC) No 1272/2008.

d) respiratory or skin sensitisation;

Not conclusive data for classification.

Reliable, adequate and relevant data from a Buehler sensitisation study according to US EPA/FIFRA Guideline in guinea pigs are available. There was no evidence for a skin sensitisation after challenge with 100 % of potassium hydrogencarbonate. The sensitisation rate was 0 %.

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

Not conclusive data for classification.

Substance not listed in ACGIH. IARC, or NTP.

g) reproductive toxicity;

Not conclusive data for classification.

h) STOT-single exposure; Not conclusive data for classification.

i) STOT-repeated exposure; Not conclusive data for classification.

j) aspiration hazard; Not conclusive data for classification.

11.2 Information on other hazards.

Endocrine disrupting properties

The substance does not contain components with endocrine-disrupting properties with effects on human health, according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other information

There is no information available on other adverse health effects.

SECTION 12: ECOLOGICAL INFORMATION.

Product classification has been carried out using the conventional calculation method of Regulation (EC) No 1272/2008(CLP)/ extrapolation with similar products.

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE



Version 1 Date of compilation: 13/05/2021
Version 2 (replaces version 1) Revision date: 11/10/2023

Page 9 of 11
Print date: 12/10/2023

12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
Potassiumhydrogencarbonate CAS No: 298-14-6 EC No: 206-059-0	Fish	LC50	fish	1.3 g/l (4 d) [1]
		NOEC	fish	430 mg/l (4 d) [2]
	[1] REACH registration study results (ECHA) [2] REACH registration study results (ECHA)			
	Aquatic invertebrates	EC50	aquatic invertebrates	630 mg/l (24h) [1]
Aquatic plants	[1] REACH registration study results (ECHA)			

12.2 Persistence and degradability.

High water solubility and very low vapour pressure indicate that potassium hydrogencarbonate will be found predominantly in the aquatic environment. This implies that it will not adsorb on particulate matter or surfaces and will not accumulate in living substances.

In water potassium hydrogencarbonate dissociates completely to K⁺ and inorganic carbon species. Both potassium and inorganic carbon are ubiquitously present in the environment.

CO₂ is the predominant species at pH values below 6.35, while HCO₃⁻ is the predominant species at a pH in the range between 6.35 and 10.33 and CO₃²⁻ is the predominant species at pH values above 10.33.

In the majority of the natural waters, pH levels are between 6 and 10. Thus HCO₃⁻ (pKa= 10.33) is the most important species for the buffer capacity. Atmospheric emissions as aerosols are rapidly neutralized by carbon dioxide as occurs with other bases and the salts will be washed out by rain.

12.3 Bioaccumulative potential.

High water solubility and very low vapour pressure indicate that potassium hydrogencarbonate will be found predominantly in the aquatic environment. This implies that it will not adsorb on particulate matter or surfaces and will not accumulate in living substances.

In water potassium hydrogencarbonate dissociates completely to K⁺ and inorganic carbon species. Both potassium and inorganic carbon are ubiquitously present in the environment.

12.4 Mobility in soil.

High water solubility and very low vapour pressure indicate that potassium hydrogencarbonate will be found predominantly in the aquatic environment. This implies that it will not adsorb on particulate matter or surfaces and will not accumulate in living substances.

In water potassium hydrogencarbonate dissociates completely to K⁺ and inorganic carbon species. Both potassium and inorganic carbon are ubiquitously present in the environment.

The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

The product does not meet the criteria to be considered PBT or vPvB according to Regulation (EC) No. 1907/2006 (REACH), Annex XIII.

According to Annex XIII a PBT assessment does not apply to inorganic substances. Since Potassium hydrogen carbonate is an inorganic substance, a PBT assessment is not required.

12.6 Endocrine disrupting properties.

This product doesn't contain components with environmental endocrine disrupting properties \geq 0.1%.

12.7 Other adverse effects.

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

No information is available about other adverse effects for the environment.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE

Version 1 Date of compilation: 13/05/2021

Version 2 (replaces version 1) Revision date: 11/10/2023



Page 10 of 11

Print date: 12/10/2023

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See section 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated Community legislation:

Follow the provisions of Directive 2008/98/EC, Decision 2014/955/UE, Directive (UE) 2018/851, Directive (UE) 2019/904 regarding waste management. EU-legislation: Regulation (EU) No. 1357/2014 and modifications.

It is not possible to assign a specific code, as it depends on the user's intended use.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number or ID number.

Transportation is not dangerous.

14.2 UN proper shipping name.

Description:

ADR/RID: Not classified as hazardous for transport.

IMDG: Not classified as hazardous for transport.

ICAO/IATA: Not classified as hazardous for transport.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous.

Transport by ship, FEM – Emergency sheets (F – Fire, S - Spills): Not applicable.

14.6 Special precautions for user.

Transportation is not dangerous.

14.7 Maritime transport in bulk according to IMO instruments.

Not classified as hazardous for transport.

SECTION 15: REGULATORY INFORMATION.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.

Volatile organic compound (VOC)

VOC content (p/p): 0 %; VOC content: 0 g/l

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

Kind of pollutant to water (Germany): WGK 1: Slightly hazardous to water. (Autoclassified according to the AwSV Regulations)

Substances included in Annex XIV of REACH (authorisation list) and expiry date: Not relevant.

SVHC substances candidate for inclusion in Annex XIV of Regulation (EC) No 1907/2006: Not relevant.

This product does not contain substances restricted by the REACH regulation.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

POTASSIUM BICARBONATE



Version 1 Date of compilation: 13/05/2021
Version 2 (replaces version 1) Revision date: 11/10/2023

Page 11 of 11
Print date: 12/10/2023

Special provisions for the protection of humans or the environment:

It is recommended to use the information compiled in this safety data sheet as input data in a risk assessment of the local circumstances to establish the necessary risk prevention measures for the handling, use, storage and disposal of the product.

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance by the supplier.

SECTION 16: OTHER INFORMATION.

Legislation related to safety data sheets:

The Safety Data Sheet shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Changes regarding to the previous version:

- Update to Regulation (UE) 2020/878.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards	On basis of test data
Health hazards	Calculation method
Environmental hazards	Calculation method

It is recommended that the product only be employed for the purposes advised.

Abbreviations and acronyms used:

AWSV: Facility Regulations for handling substances that are hazardous for the water.
CEN: European Committee for Standardization.
EC50: Half maximal effective concentration.
IARC: International Agency for Research on Cancer
PPE: Personal protection equipment.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
SDS: Safety Data Sheet.
WGK: Water hazard classes.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>
<http://echa.europa.eu/>
Regulation (EU) 2020/878.
Regulation (EC) No 1907/2006.
Regulation (EC) No 1272/2008.
GESTIS SUBSTANCE DATABASE

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemical substances and mixtures (REACH).

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.