



MATERIAL SAFETY DATA SHEET

Potassium Bicarbonate

1. Product Identification

Synonyms: Potassium acid carbonate; Carbonic acid, monopotassium salt; Potassium hydrogen carbonate

CAS No.: 298-14-6

Molecular Weight: 100.12

Chemical Formula: KHCO_3

Product Codes: P142

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Potassium Bicarbonate	298-14-6	100%	Yes

3. Hazards Identification

EMERGENCY OVERVIEW

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Health Rating: 1 - Slight

Flammability Rating: 0 - None

Reactivity Rating: 0 - None

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

Storage Color Code: Green (General Storage)

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Inhalation:

Mild alkaline irritant to respiratory system. Coughing, sneezing, possible breathing difficulty in acute cases.

Ingestion:

No adverse effects expected.

Skin Contact:

No adverse effects expected.

Eye Contact:

Mild irritant, possible reddening due to alkaline effect or abrasion.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

Aggravation of Pre-existing Conditions:

No adverse health effects expected.

4. First Aid Measures**Inhalation:**

Allow the victim to rest in a well ventilated area. Get medical attention for any breathing difficulty.

Serious Inhalation:

Not available.

Ingestion:

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Get medical advice if irritation develops.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Get medical advice if irritation develops.

5. Fire Fighting Measures**Fire:**

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Special Remarks on Explosion Hazards:

Not available.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

Products of Combustion:

Not available.

Fire Hazards in Presence of Various Substances:

Not applicable.

Special Information on Fire Hazards:

Not available.

Fire Fighting Media and Instructions:

Not applicable.

Special Information:

Use protective clothing and breathing equipment appropriate for the surrounding fire.

6. Accidental Release Measures**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. Handling and Storage**Precautions:**

Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes.

Storage:

No specific storage is required. Use shelves or cabinets sturdy enough to bear the weight of the chemicals. Be sure that it is not necessary to strain to reach materials, and that shelves are not overloaded.

8. Exposure Controls/Personal Protection**Airborne Exposure Limits:**

None established.

Ventilation System:

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Personal Respirators:

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Safety glasses. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties**Appearance:**

Solid.

Odor:

Not available.

Solubility:

Soluble in cold water

Density:

2.17 (Water = 1).

pH:

Not available.

% Volatiles by volume @ 21C (70F):

0.

Boiling Point:

Not available.

Melting Point:

Decomposes.

Vapor Density (Air=1):

Not available.

Vapor Pressure (mm Hg):

Not available.

Molecular Weight:

100.12

Evaporation Rate (BuAc=1):

Not available.

10. **Stability and Reactivity**

Stability:

Stable under ordinary conditions of use and storage.

Conditions to Avoid:

Heat, flame, other sources of ignition.

Conditions of Instability:

Not available.

Incompatibilities:

No incompatibility data found. Potassium carbonyl, magnesium, chlorine trifluoride listed for the carbonate.

Hazardous Decomposition

May produce oxides of carbon and the contained metal.

Special Remarks on Reactivity:

Not available.

Corrosivity:

Non-corrosive in presence of glass.

Hazardous Polymerization:

Will not occur.

11. **Toxicological Information**

Routes of Entry:

Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans:

Not available.

Other Toxic Effects on Humans:

Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Chronic Effects on Humans:

Not available.

Special Remarks on other Toxic Effects on Humans:

Not available.

12. **Ecological Information**

Ecotoxicity:

Not available

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation:

The products of degradation are more toxic.

13. **Disposal Considerations**

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Waste Disposal:

14. **Transport Information**

DOT Classification:

Not a DOT controlled material

Identification:

Not applicable

Special Provisions for Transport:

Not available.

Protective Equipment:

Gloves (impervious). Synthetic apron. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

15. **Other Information**

NFPA Ratings: Health: **1** Flammability: **0** Reactivity: **0**

Label Hazard Warning:

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Label Precautions:

None.

Label First Aid:

Not applicable.

Product Use:

Laboratory Reagent.

Revision Information:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

