

MATERIAL SAFETY DATA SHEET -**POBICA**

1. IDENTIFICATION

Revision Date	JUNE 2009			
Product Name	POTASSIUM BICARBONATE			
Other Names	POTASSIUM HYDROGEN CARBONATE; CARBONIC ACID, MONOPOTASSIUM SALT; POTASSIUM ACID CARBONATE.			
Uses	Baking powders, soft drinks, medicine (antacid), manufacture of pure potassium carbonate, fire-extinguishing agent, low pH liquid detergents, laboratory reagent, food additive.			
Contact Information	Organisation	Location	Telephone	Ask For
	Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61 2 97333000	Technical Officer
		11 Mayo Road Wiri Auckland 2104 New Zealand	+64 9 2506222	
	Poison Information Centre	Westmead NSW Australia	131126	
	Chemcall 24 Hour Emergency Number	Australia New Zealand	1800-127406 0800-243622	
	National Poisons Centre	New Zealand	0800-764766	

2. HAZARD IDENTIFICATION

NOT Hazardous according to criteria of NOHSC/ASCC.

Risk Phrases	No data available.
Safety Phrases	No data available.
ERMA New Zealand Approval Code	No data available.
HSNO Hazard Classification	

This Material Safety Data Sheet may not provide exhaustive guidance for all HSNO Controls assigned to this substance. The ERMA Web Site should be consulted for a full list of triggered controls and cited regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Chemical Entity	CAS Number	Proportions (%)
	POTASSIUM BICARBONATE	[298-14-6]	95.0-100.0

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure.

Swallowed	Rinse mouth with water. Give water to drink. Do NOT induce vomiting. If large amounts have been ingested, seek medical advice.
Eye	Immediately flush eyes with plenty of water for 15 minutes, holding eyelids open. If irritation develops, seek medical attention.
Skin	Remove contaminated clothing. Wash affected area with soap and plenty of water. If irritation develops, seek medical attention.
Inhaled	Remove victim from exposure to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if effects persist.
Advice to Doctor	Treat symptomatically based on individual reactions of patient and judgement of doctor.
Aggravated medical conditions caused by exposure	No information available on medical conditions which are aggravated from exposure to this product.

5. FIRE FIGHTING MEASURES

Extinguishing Media	In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions. Water spray may be used to extinguish fires and cool fire exposed containers.
Hazards from Combustion Products	Non-combustible solid. Avoid generating dust. Incompatible with oxidizing agents, strong acids, and sources of ignition. When involved in a fire, this product may generate oxides of carbon and the contained metal.
Special Protective Precautions and Equipment for Fire Fighters	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Flammability Conditions	Product is a non-flammable solid.

Additional Information

Hazchem Code N/A

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Personnel involved in the clean up should wear full protective clothing. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Do not allow product to reach drains, sewers or waterways. If the product does enter a waterway, advise the Environmental Protection
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Authority or your local Waste Management. Reduce airborne dust and prevent scattering by moistening with water.

Methods and Materials for Containment and Clean Up

Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and dispose of promptly.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes.

Conditions for Safe Storage (Including Any Incompatibles)

Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Protect from direct sunlight, moisture and static discharges. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.

Container Type

Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards

No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified is 10mg/m³ (for inspirable dust) and 3mg/m³ (for respirable dust). NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological Limit Values

No information available on biological limit values for this product.

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal Protection

RESPIRATOR: Wear an effective respirator with type N95 or better filter where dusts/vapours are generated and engineering controls are inadequate (AS1715/1716). EYES: Safety glasses with side shields (AS1336/1337). HANDS: Wear protective gloves (AS2161). CLOTHING: Long-sleeved protective clothing and safety footwear (AS3765/2210).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White Crystalline Powder
Formula	CH ₂ O ₃ .K
Odour	Odourless
Vapour Pressure	Not applicable.
Vapour Density	Not applicable.

Boiling Point	Not applicable.
Melting Point	100-120°C (Decomp) deg C
Solubility in Water	36g/100g of water
Specific Gravity	2.17 (Water = 1)
Flash Point	Not applicable.
pH	8-9 ()
Lower Explosion Limit	Not applicable.
Upper Explosion Limit	Not applicable.
Ignition Temperature	Not applicable.
Specific Heat Value	Not applicable.
Particle Size	Not applicable.
Volatile Organic Compounds (VOC) Content	Not applicable. 0%
Evaporation Rate	Not applicable.
Viscosity	Not applicable.
Percent Volatile	Not applicable.
Octanol/Water partition coefficient	Not applicable.
Saturated Vapour Concentration	Not applicable.
Additional Characteristics	Not applicable.
Flame Propagation/Burning Rate of Solid Materials	Not applicable.
Properties of Materials That May Initiate or Contribute to Fire Intensity	100-120°C (Decomposes) pH: Aqueous solution is moderately alkaline (8-9)
Potential for Dust Explosion	
Reactions that Release Flammable Gases	
Fast or Intensely Burning Characteristics	
Non-flammables That Could Contribute Unusual Hazards to a Fire	
Release of Invisible Flammable Vapours and Gases	
Decomposition Temperature	
Additional Information	

10. STABILITY AND REACTIVITY

Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Avoid excessive heat, direct sunlight, generating dust, moisture, static discharges, open flame and high temperatures.
Incompatible Materials	Incompatible with strong oxidizing agents, strong acids, and sources of ignition. Potassium carbonyl, magnesium, chlorine trifluoride listed for the carbonate.
Hazardous Decomposition Products	Product may generate oxides of carbon and the contained metal when involved in a fire.
Hazardous Reactions	Hazardous Polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicity Data	No LD50 information found relating to normal routes of occupational exposure.
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Health Effects - Acute

Swallowed	May be harmful by ingestion. Large doses may produce abdominal pain, nausea and vomiting.
Eye	Eye contact may cause irritation, redness, and pain.
Skin	May cause irritation with redness and pain.
Inhaled	May be harmful if inhaled. May cause irritation to the respiratory tract. Symptoms may include coughing, sore throat, labored breathing, and chest pain.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Quantitative data on the ecological effect of this product are not available.
Persistence and Degradability	Methods for determination of biodegradability cannot be applied to inorganic substances.
Mobility	No information available on mobility for this product.
Environmental Fate (Exposure)	Avoid contaminating waterways, drains or sewers. No ecological problems are to be expected when the product is handled and used with due care and attention.
Bioaccumulative Potential	No information available on bioaccumulation for this product.

13. DISPOSAL CONSIDERATIONS

Disposal	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility
Special Precautions for Land Fill or Incineration	Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

Land Transport (Australia)

Regulation Name	ADG Code
UN Number	Not applicable.
Shipping Name	POTASSIUM BICARBONATE
Dangerous Goods Class	Not applicable.
Subsidiary Risk	Not applicable.
Pack Group	No data available.
Precaution for User	N/A
Hazchem Code	Not applicable.
EPG	Not applicable.
Special Provision	

Land Transport (New Zealand)

Regulation Name	NZS5433
UN Number	Not applicable.
Shipping Name	POTASSIUM BICARBONATE
Dangerous Goods Class	Not applicable.
Subsidiary Risk	Not applicable.
Pack Group	No data available.
Precaution for User	N/A
Hazchem Code	Not applicable.
EPG	Not applicable.
Special Provision	

Sea Transport

Regulation Name	IMDG Code
UN Number	No data available.
Shipping Name	No data available.
Dangerous Goods Class	No data available.
Subsidiary Risk	No data available.
Pack Group	No data available.
Precaution for User	No data available.
Hazchem Code	No data available.
EPG	Not applicable.
Special Provision	

15. REGULATORY INFORMATION

Poisons Schedule	N/A
EPG	N/A

AICS Name	CARBONIC ACID, MONOPOTASSIUM SALT
NZ Toxic Substance	N
HSNO Hazard Classification	No data available.
ERMA Approval Code	No data available.

16. OTHER INFORMATION

Literature References	No data available.
Sources for Data	No data available.

Legend to Abbreviations and Acronyms

<	less than
>	greater than
ADG	Australian Dangerous Goods Code
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service (Registry Number)
cm²	square centimetres
CO₂	Carbon Dioxide
COD	Chemical Oxygen Demand
deg C (°C)	degrees Celsius
ERMA	Environmental Risk Management Authority
g	gram
g/cm³	grams per cubic centimetre
g/l	grams per litre
HSNO	Hazardous Substance and New Organism
IATA	International Air Transport Association Dangerous Goods Regulations
IDLH	Immediately Dangerous to Life and Health
IMDG	International Maritime Dangerous Goods Code
immiscible	liquids are insoluble in each other
kg	kilogram
kg/m³	kilograms per cubic metre
LC₅₀	LC stands for lethal concentration. LC ₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD₅₀	LD stands for Lethal Dose. LD ₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals
ltr	Litre
m³	cubic metre
mbar	millibar
mg	milligram
mg/24H	milligrams per 24 hours
mg/kg	milligrams per kilogram
mg/m³	milligrams per cubic metre
Misc	miscible

miscible	liquids form one homogeneous liquid phase regardless of the amount of either component present
mm	millimetre
mPa.s	milli Pascal per second
N/A	Not Applicable
NOHSC	National Occupational Health and Safety Commission
OECD	Organization for Economic Co-operation and Development
PEL	Permissible Exposure Limit
ppb	parts per billion
ppm	parts per million
ppm/2h	parts per million per 2 hours
ppm/6h	parts per million per 6 hours
RCP	Reciprocal Calculation Procedure
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
tne	tonne
TWA	Time Weighted Average
ug/24H	micrograms per 24 hours
UN	United Nations (number)
wt	weight



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This MSDS summarises Redox Pty Ltd best knowledge of the health and safety hazard information of the selected substance and how to safely handle the selected substance in the workplace however Redox Pty Ltd expressly disclaims that the MSDS is a representation or guarantee of the chemical specifications for the substance.

Each user should read the MSDS and consider the information in the context of how the selected substance will be handled and used in the workplace including its use in conjunction with other substances.

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