SAFETY DATA SHEET

Potassium Carbonate 47%

SECTION 1: IDENTIFICATION

Product identifier used on a label:	**Potassium carbonate 47%**
Product code:	2116P
Recommended use of the chemical and restrictions on use:	Industries: Specialty Glass, HI & IC, Food, Agricultural, Gas Purification, Pharmaceutical, Electroplating, Oil and Gas.
Chemical family:	Mixture.
Name, address and phone # of supplier:	Aqua Bond Inc. PO Box 63635 Toronto, ON, M1V 5K2 (416) 754-7211
24 Hr. Emergency phone #	**CANUTEC (613) 996-6666**

SECTION 2: HAZARDS IDENTIFICATION

Classification of the chemical: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:
CORROSIVE TO METALS- CATEGORY 1
SKIN CORROSION- CATEGORY 1B
SERIOUS EYE DAMAGE- CATEGORY 2A
ACUTE TOXICITY, INHALATION- CATEGORY 4
ACUTE TOXICITY, ORAL- CATEGORY 4
STOT-SE- CATEGORY 3

Label elements:

Signal word: DANGER

Hazard statements:
H290 May be corrosive to metals
H314 Causes severe skin burns and eye damage
H319 Causes serious eye irritation
H302 Harmful if swallowed
H332 Harmful if inhaled
H335 May cause respiratory irritation

Precautionary statements:
P260 Do not breathe mist, vapours, or spray.
P280 Wear protective gloves, protective clothing, eye, and face protection.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P234 Keep only in original container.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P361+P364 Take off contaminated clothing and wash it before reuse.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P390 Absorb spillage to prevent material damage.
P406 Store in corrosive resistant container with a resistant inner liner
SP403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents and container in accordance with applicable local, regional, national and/or international regulations.

Other hazards: Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/ mixture: Mixture

Ingredient name	CAS Number	Concentration (%)
Water	7732-18-5	52.5 – 53
Potassium carbonate	584-08-7	47 – 47.5

SECTION 4: FIRST-AID MEASURES

Description of first aid measures:

Ingestion	Do not induce vomiting. Call a POISON CENTRE or doctor. Give water to drink if victim is completely conscious.
Inhalation	Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor if you feel unwell.
Skin contact	For even minor contact, immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Wash contaminated clothing before reuse. Immediately contact medical centre.
Eye contact	Rinse cautiously for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed:

Inhalation of this product causes respiratory irritation with symptoms such as coughing, redness of mouth. Has a corrosive effect on skin and eyes. May even cause blindness if not treated promptly. Blistering, redness and third degree burns to skin may occur. Slightly toxic by ingestion.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable	Use extinguishing media suitable for surrounding fires.
Unsuitable	None known.

Special hazards arising from the substance:	Negligible fire hazard.
Hazardous thermal decomposition products:	Oxides of carbon, potassium oxides.
Special protective actions for fire-fighters:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapours. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Environmental precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for containment and cleaning up:	Contain spillage and then collect using electrically protected vacuum cleaner or by wet-brushing and place in container for disposal.
Special spill response procedures:	In case of transportation accident, contact CANUTEC (613) 996-6666.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Prevent accidental contact within compatible chemicals. Keep containers tightly closed when not in use or empty. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.
Conditions for safe storage:	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be resealed and kept upright. Do not store in unlabeled containers.
Incompatible materials:	Acids, lime, prolonged contact with aluminum, brass, copper, lead, tin, zinc or other alkali sensitive metals or alloys.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Exposure limits

Ingredient	***Exposure limits***
Potassium carbonate	Not established.

Engineering controls: Use with adequate ventilation to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures: Eyes/face: Chemical splash goggles and face shield.

Skin: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory: A respirator with N95 (dust, fume, mist) 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear colourless liquid.
Odour:	Odourless.
Odour threshold:	Not available.
pH:	13.5-14.0
Melting point:	Not applicable.
Freezing point:	-12°C
Initial boiling point and boiling range:	109-115°C
Flash point:	Not flammable.
Evaporation rate:	Not available.
Flammability:	Not flammable.
Upper and lower flammability limits:	Not applicable.
Vapour pressure:	10-13 mm Hg @20°C
Vapour density:	Not available.
Relative density:	1.45-1.55
Solubility:	Soluble in water.
Partition coefficient n-octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	10.4 by Brookfield Method.

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Not reactive under normal temperatures and pressures.
Chemical stability:	Stable.
Possibility of hazardous reactions:	Avoid contact with lime to prevent formation or corrosive

	potassium hydroxide (KOH).
Conditions to avoid:	Incompatible materials.
Incompatible materials:	Acids, lime, prolonged contact with aluminum, brass, copper, lead, tin, zinc or other alkali sensitive metals or alloys.
Hazardous decomposition products:	Will not decompose under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure:	SKIN AND EYES: yes INHALATION: yes INGESTION: yes
Potential health effects (acute):	EYE: Causes severe irritation and redness to the eye lids, conjunctiva. Untreated, prolonged eye contact can cause permanent and severe eye damage. INHALATION: Upper respiratory tract irritation, cough. SKIN: Corrosive to skin. Redness, swelling, burning sensation and third degree burns. INGESTION: May cause oral, esophageal, glottis redness, irritation, ulceration, edema and burns.
Delayed and immediate effects, chronic effects from short and long term exposure:	Corrosive effects to tissue.
Potential chronic health effects:	Long term contact may cause dermatitis.
Carcinogenicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Developmental effects:	No known significant effects or critical hazards.
Fertility effects:	No known significant effects or critical hazards.
Sensitization:	No known significant effects or critical hazards.
Toxicological effects:	
Acute toxicity:	

Product	***Result***	***Species***	***Dose***	***Exposure***
Liquid potassium carbonate	LD50 oral	Rat	1870 mg/kg	-
	LD50 dermal	Rat	>2000 mg/kg	-
	LC50 inh	Rat	>4.96 mg/L	4.5 hr

Aspiration hazard: No known significant effects or critical hazards.

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SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Name	**Result**	**Species**	**Exposure**
Potassium carbonate	LC50 68 mg/L	Rainbow trout	96 hours
	LC50 230 mg/L	Bluegill sunfish	96 hours

Persistence and degradability: Not expected to be persistent. Not subject to biodegradation.
Bioaccumulative potential: Not bioaccumulative.
Mobility in soil: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

	TDG
UN Number:	UN1760
UN proper shipping name:	Corrosive liquids, N.O.S. (Potassium Carbonate)
Transport hazard class:	8
Packing group:	II
Environmental hazard:	No.
Special precautions for user:	**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: REGULATORY INFORMATION

Canada inventory (DSL): Listed.

SECTION 16: OTHER INFORMATION

Revision date: November 16, 2023
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor

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GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
Longbow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Disclaimer

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