SAFETY DATA SHEET

Barium Carbonate

SECTION 1: IDENTIFICATION

Product identifier used on a label:	**Barium Carbonate**
Product code:	2153
Recommended use of the chemical and restrictions on use:	Industrial use only.
Chemical family:	Pure chemical.
Name, address and phone # of supplier:	Aqua Bond Inc. 440 Passmore ave. Scarborough, ON, M1V 5J8 (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: ACUTE TOXICITY, ORAL- CATEGORY 4

Label elements:



Signal word: WARNING

Hazard statements: H302 Harmful if swallowed.

Precautionary statements: P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P501 Dispose of contents in accordance with local/regional/national/ inernational regulations.

Other hazards: Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/ mixture: Pure substance

Ingredient name	**CAS Number**	**Concentration (%)**
Barium carbonate	513-77-9	>97%

SECTION 4: FIRST-AID MEASURES

Description of first aid measures:

Ingestion	Do not induce vomiting. Immediately call a POISON CENTRE or doctor.
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	Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin

	irritation occurs, get medical advice.
Eye contact	Immediately rinse the contaminated eye with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelids open. Immediately call a POISON CENTRE or doctor.

Most important symptoms and effects, both acute and delayed:
Not available.
Indication of any immediate medical attention and special treatment needed:
Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media:	
Suitable	Use suitable extinguisher for surrounding fire.
Unsuitable	None known.
Special hazards arising from the substance:	None known.
Hazardous thermal decomposition products:	Does not burn. Heating increases the release of toxic vapour. Carbon oxides, barium 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 dusts. 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:	Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.
Special spill response procedures:	In case of transportation accident, contact CHEMTREC at 1-800-424-9300.

SECTION 7: HANDLING AND STORAGE

Precautions for safe	Wear personal protective equipment to avoid direct contact with this

handling:	chemical. Avoid generating dusts. Only use where there is adequate ventilation. Avoid heating that will increase the amount of vapours. Prevent accidental contact with incompatible 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:	Strong acids.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Exposure limits

Ingredient	***Exposure limits***
Barium 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: Wear appropriate respirator when ventilation is inadequate. Be sure to use a NIOSH approved respirator or equivalent.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White crystalline powder.
Odor:	Odourless.
Odor threshold:	Not available.
pH:	Not applicable.
Melting point:	1300-1360°C
Freezing point:	1300-1360°C
Initial boiling point and boiling range:	Not available.
Flash point:	Not applicable.
Evaporation rate:	Not available.
Flammability:	Not flammable.
Upper and lower flammability limits:	Not applicable.
Vapour pressure:	Not available.
Vapour density:	Not available.

Relative density:	4.29 at 20°C
Solubility:	Insoluble in water. Soluble in acids.
Partition coefficient n-octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	1300-1360°C
Viscosity:	Not applicable.

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	None known.
Chemical stability:	Stable.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	Incompatible materials.
Incompatible materials:	Strong acids.
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: May cause eye irritation. INHALATION: May cause nose and throat irritation. SKIN: May cause irritation. INGESTION: Harmful if swallowed. May cause severe irritation or burns to the mouth, throat and stomach.
Delayed and immediate effects, chronic effects from short and long term exposure:	Irritating when inhaled. Avoid generating dust.
Potential chronic health effects:	No known significant effects or critical hazards.
Carcinogenicity:	The components are not listed as carcinogens.
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***
Barium carbonate	LD50 oral	Rat	418 mg/kg	-

Aspiration hazard: No known significant effects or critical hazards.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity	Not available.
Persistence and degradability:	Not available.
Bioaccumulative potential:	Not available.
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:	UN1564
UN proper shipping name:	BARIUM COMPOUNDS, N.O.S. (barium carbonate)
Transport hazard class:	6.1
Packing group:	III
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: June 1, 2017
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods
LogPow = 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

While the information and recommendations set forth are believed to be accurate as of data hereof, Aqua Bond Inc., makes no warranty with respect thereto and disclaims all liability from reliance thereon.