

SECTION 1: Identification

1.1. Product identifier

Product name : NRG CaB

1.2. Recommended use and restrictions on use

Recommended uses and restrictions : Liquid Fertilizer

1.3. Supplier

ATP Nutrition Ltd.
190 Agri Park Road
Oak Bluff, MB
R4G 0A5
T 204-287-2023 - F 204-287-0027
infocanada@atpnutrition.ca - www.atpnutrition.ca

1.4. Emergency telephone number

Emergency number : CANUTEC: +1-613-996-6666 or *666 (cellular)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Acute toxicity (oral) Category 4	H302
Serious eye damage/eye irritation Category 1	H318
Reproductive toxicity, Category 1	H360

2.2. GHS Label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : H302 - Harmful if swallowed
H318 - Causes serious eye damage
H360 - May damage fertility or the unborn child

Precautionary statements (GHS CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P330 - Rinse mouth.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in

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accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS CA)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Nitric acid, ammonium calcium salt	CAS-No.: 15245-12-2	30 – 60
Boric acid (H3BO3)	CAS-No.: 10043-35-3	7 – 13
Calcium chloride	CAS-No.: 10043-52-4	3 – 7

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
First-aid measures after skin contact	: Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
First-aid measures after eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.
First-aid measures after ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact	: No known significant effects or critical hazards
Symptoms/effects after eye contact	: Causes serious eye damage
Symptoms/effects after inhalation	: No known significant effects or critical hazards
Symptoms/effects after ingestion	: Harmful if swallowed

4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
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SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Use suitable extinguishing media for surrounding fire.

5.2. Unsuitable extinguishing media

Unsuitable extinguishing media : Do not use a heavy water stream.

5.3. Specific hazards arising from the hazardous product

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : 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

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Put on appropriate personal protective equipment.

6.1.2. For emergency responders

Protective equipment : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

6.2. Methods and materials for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.3. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist.

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Hygiene measures : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not store below the following temperature: 10°C (50°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Boric acid (H3BO3) (10043-35-3)	
Canada (British Columbia) - Occupational Exposure Limits	
OEL TWA	2 mg/m ³ (inhalable)
OEL STEL	6 mg/m ³ (inhalable)
Canada (Manitoba) - Occupational Exposure Limits	
OEL TWA	2 mg/m ³ (inhalable particulate matter)
OEL STEL	6 mg/m ³ (inhalable particulate matter)
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
OEL TWA	2 mg/m ³ (inhalable particulate matter)
OEL STEL	6 mg/m ³ (inhalable particulate matter)
Canada (Nova Scotia) - Occupational Exposure Limits	
OEL TWA	2 mg/m ³ (inhalable particulate matter)
OEL STEL	6 mg/m ³ (inhalable particulate matter)
Canada (Nunavut) - Occupational Exposure Limits	
OEL TWA	2 mg/m ³ (inhalable fraction)
OEL STEL	6 mg/m ³ (inhalable fraction)
Canada (Northwest Territories) - Occupational Exposure Limits	
OEL TWA	2 mg/m ³ (inhalable fraction)
OEL STEL	6 mg/m ³ (inhalable fraction)
Canada (Ontario) - Occupational Exposure Limits	
OEL TWAEV	2 mg/m ³ (inhalable)
	6 mg/m ³ (inhalable)
Canada (Prince Edward Island) - Occupational Exposure Limits	
OEL TWA	2 mg/m ³ (inhalable particulate matter)
OEL STEL	6 mg/m ³ (inhalable particulate matter)
Canada (Saskatchewan) - Occupational Exposure Limits	
OEL TWA	2 mg/m ³ (inhalable fraction)

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Boric acid (H3BO3) (10043-35-3)

OEL STEL	6 mg/m ³ (inhalable fraction)
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USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	2 mg/m ³ (inhalable particulate matter)
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ACGIH OEL STEL	6 mg/m ³ (inhalable particulate matter)
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ACGIH chemical category	Not Classifiable as a Human Carcinogen
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Calcium chloride (10043-52-4)

Canada (Ontario) - Occupational Exposure Limits

OEL TWAEV	5 mg/m ³
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8.2. Appropriate engineering controls

Appropriate engineering controls	:	Ensure good ventilation of the work station.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

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.

Eye protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield..

Skin and body protection:

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.

Appropriate footwear and any additional skin protection measures 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 protection:

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Green
Odor	: None
Odor threshold	: No data available
pH	: 3 – 3.9
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.42
Solubility	: Soluble in water
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: None.
Incompatible materials	: Oxidizers
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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ATE CA (oral)	833.333 mg/kg body weight
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Nitric acid, ammonium calcium salt (15245-12-2)

ATE CA (oral)	500 mg/kg body weight
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Boric acid (H3BO3) (10043-35-3)

LD50 oral rat	2660 mg/kg
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Boric acid (H3BO3) (10043-35-3)

LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 0.16 mg/l/4h

Calcium chloride (10043-52-4)

LD50 oral rat	1000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified

Boric acid (H3BO3) (10043-35-3)

EC50 - Crustacea [1]	115 – 153 mg/l (Exposure time: 48 h - Species: Daphnia magna)
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Calcium chloride (10043-52-4)

LC50 - Fish [1]	10650 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	2280000 – 3948000 µg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

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Persistence and degradability	Not established.
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Nitric acid, ammonium calcium salt (15245-12-2)

Persistence and degradability	Rapidly degradable
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Boric acid (H3BO3) (10043-35-3)

Persistence and degradability	Rapidly degradable
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Calcium chloride (10043-52-4)

Persistence and degradability	Rapidly degradable
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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Boric acid (H3BO3) (10043-35-3)

BCF - Fish [1]	0
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Boric acid (H3BO3) (10043-35-3)

Partition coefficient n-octanol/water (Log Pow)	-0.757 (at 25 °C)
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Calcium chloride (10043-52-4)

BCF - Fish [1]	(no bioaccumulation)
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable 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 empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

In accordance with TDG / DOT / IMDG / IATA

14.1. UN number

UN-No. (TDG) : Not applicable
UN-No. (DOT) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

TDG
Transport hazard class(es) (TDG) : Not applicable

DOT
Transport hazard class(es) (DOT) : Not applicable

IMDG
Transport hazard class(es) (IMDG) : Not applicable

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IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (TDG) : Not applicable

Packing group (DOT) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

TDG

Not applicable

DOT

Not applicable

IMDG

Not applicable

IATA

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Boric acid (H3BO3) (10043-35-3)

Listed on the Canadian DSL (Domestic Substances List)

Calcium chloride (10043-52-4)

Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

Boric acid (H3BO3) (10043-35-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Calcium chloride (10043-52-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 16: Other information

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To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.