

Ammonium Bicarbonate

SECTION 1. IDENTIFICATION

| | |
|--------------------------------------|--|
| Product Identifier | Ammonium Bicarbonate |
| Other Means of Identification | Ammonium hydrogen carbonate, Baking soda, Bicarbonate of ammonia |
| Product Code(s) | AM1810, AM1830 |
| Product Family | Inorganic Solid |
| Recommended Use | Laboratory and industrial use. |
| Restrictions on Use | None known. |
| Supplier Identifier | Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995 |
| Emergency Phone No. | CANUTEC CANADA, 613-996-6666, 24 Hours |
| SDS No. | 0675 |

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Acute toxicity (Oral) - Category 4

Label Elements



Signal Word:
Warning

Hazard Statement(s):

Harmful if swallowed.
Very toxic to aquatic life.

Precautionary Statement(s):

Wash hands and skin thoroughly after handling.
Avoid release to the environment.

Response:

If SWALLOWED: Call a POISON CENTRE/doctor/ if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Wash with plenty of water.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

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None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

| Chemical Name | CAS No. | % | Other Identifiers |
|----------------------|-----------|------|--|
| AMMONIUM BICARBONATE | 1066-33-7 | > 99 | Ammonium hydrogen carbonate, Baking soda, Bicarbonate of ammonia |

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get immediate medical advice or attention.

Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation occurs, get medical advice or attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Do not induce vomiting. Rinse mouth with water. Immediately call a Poison Centre or doctor.

First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training. If exposed or concerned, get medical advice or attention.

Most Important Symptoms and Effects, Acute and Delayed

None known.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable Extinguishing Media

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific Hazards Arising from the Product

Does not burn. Heating increases the release of toxic vapour. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: corrosive, flammable ammonia; very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. Knock down vapours or gases with water fog or fine water spray. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Dike and recover contaminated water for appropriate disposal.

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Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Remove or isolate incompatible materials as well as other hazardous materials. Eliminate all ignition sources if safe to do so.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

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.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Avoid breathing in this product. Avoid generating dusts. Only use where there is adequate ventilation. Prevent accidental contact with incompatible chemicals.

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in a closed container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Chemical Name | ACGIH TLV® | | OSHA PEL | | AIHA WEEL | |
|----------------------|----------------------|------|----------------------|---------|-----------|-----|
| | TWA | STEL | TWA | Ceiling | 8-hr TWA | TWA |
| AMMONIUM BICARBONATE | 10 mg/m ³ | | 15 mg/m ³ | | | |

Note: Above results are for Total Dust.

Appropriate Engineering Controls

The hazard potential of this product is relatively low. General ventilation is usually adequate. Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

| | |
|------------------------------|---|
| Appearance | White crystalline powder. |
| Odour | Ammonia-like |
| Odour Threshold | Not available |
| pH | 8.2 (1% solution) |
| Melting Point/Freezing Point | 60 - 107 °C (140 - 225 °F) (melting); 60 - 107 °C (140 - 225 °F) (freezing) |
| Initial Boiling Point/Range | Not available |

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| | |
|---|--|
| Flash Point | Not available |
| Evaporation Rate | Not available |
| Flammability (solid, gas) | Not available |
| Upper/Lower Flammability or Explosive Limit | Not available (upper); Not available (lower) |
| Vapour Pressure | Not available |
| Vapour Density (air = 1) | Not available |
| Relative Density (water = 1) | Not available |
| Solubility | Soluble in water; Not available (in other liquids) |
| Partition Coefficient, n-Octanol/Water (Log Kow) | Not available |
| Auto-ignition Temperature | Not available |
| Decomposition Temperature | Not available |
| Viscosity | Not available (kinematic); Not available (dynamic) |
| Other Information | |
| Physical State | Solid |

SECTION 10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

High temperatures. Generation of dust. Incompatible materials. Temperatures above 49.0 °C (120.2 °F)

Incompatible Materials

Strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide).

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; corrosive, flammable ammonia.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|----------------------|---------------|------------------|-----------------------|
| AMMONIUM BICARBONATE | Not available | 1237 mg/kg (rat) | > 5000 mg/kg (rabbit) |

Skin Corrosion/Irritation

Human experience shows mild irritation.

Serious Eye Damage/Irritation

Animal tests show mild irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause nose and throat irritation.

Ingestion

Harmful.

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Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

| Chemical Name | IARC | ACGIH® | NTP | OSHA |
|----------------------|------------|------------|------------|------------|
| AMMONIUM BICARBONATE | Not Listed | Not Listed | Not Listed | Not Listed |

Reproductive Toxicity**Development of Offspring**

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal Methods**

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

| Regulation | UN No. | Proper Shipping Name | Transport Hazard Class(es) | Packing Group |
|--------------|--------|---|----------------------------|---------------|
| IMO (Marine) | UN3082 | Environmentally hazardous substance, Liquid, N.O.S. (Carbonic acid, monammonium salt) | 9 | III |
| US DOT | UN3082 | Environmentally hazardous substance, Liquid, N.O.S. (Carbonic acid, monammonium salt) | 9 | III |
| Canadian TDG | UN3082 | Environmentally hazardous substance, Liquid, N.O.S. (Carbonic acid, monammonium salt) | 9 | III |

Environmental Hazards Marine Pollutant**Special Precautions** Not applicable**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

SECTION 15. REGULATORY INFORMATION**Safety, Health and Environmental Regulations**

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Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

| | | | |
|------------------------------|--|-------------------------|------------------------|
| NFPA Rating | Health - 2 | Flammability - 0 | Instability - 1 |
| SDS Prepared By | Alphachem Limited | | |
| Phone No. | (905)-821-2995 | | |
| Date of Preparation | August 23, 2016 | | |
| Date of Last Revision | August 23, 2016 | | |
| References | CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). | | |
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