

**Ammonium bicarbonate**  
**40867-50G**

Version 1.3

Issuing date 07/25/2016

Revision Date 09/27/2017

Print Date 06/28/2019

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name : Ammonium bicarbonate

Number : 000000020209

Recommended use of the chemical and restrictions on use : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH  
Wunstorfer Straße 40  
Seelze, 30926

For further information, please contact: : 1-800-368-0050  
+1-231-726-3171  
(Monday-Friday, 9:00am-5:00pm)

**In case of emergency call :** **Medical: 1-800-498-5701 or +1-303-389-1414**  
**Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**  
**In Japan: +(81)-345209637**  
: (24 hours/day, 7 days/week)

**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture**

Classification of the substance or mixture : Acute toxicity, Category 4, Oral  
Acute aquatic toxicity, Category 3

**GHS Label elements, including precautionary statements**

Symbol(s) :



Signal word : Warning

Hazard statements : Harmful if swallowed.  
Harmful to aquatic life.

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## Precautionary statements

: **Prevention:**

Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Avoid release to the environment.

**Response:**

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
Rinse mouth.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**Formula : CH<sub>5</sub>NO<sub>3</sub>

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Ammonium bicarbonate	1066-33-7	100.00 %
Ammonium bicarbonate		

Note: none

**4. FIRST AID MEASURES**

## General advice

: First aider needs to protect himself.  
Move out of dangerous area.  
Take off all contaminated clothing immediately.

## Inhalation

: If inhaled, remove to fresh air.  
If symptoms persist, call a physician.

## Skin contact

: After contact with skin, wash immediately with plenty of water.  
If symptoms persist, call a physician.

## Eye contact

: Rinse thoroughly with plenty of water, also under the eyelids.  
Protect unharmed eye.  
If eye irritation persists, consult a specialist.

## Ingestion

: When swallowed, allow water to be drunk.  
Call a physician immediately.

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**5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder
- Specific hazards during firefighting : Fire may cause evolution of:  
Ammonia  
carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>).
- Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Wear personal protective equipment. Unprotected persons must be kept away.  
Avoid breathing dust.
- Environmental precautions : Should not be released into the environment.
- Methods and materials for containment and cleaning up : Avoid dust formation.  
Use mechanical handling equipment.  
Sweep up and shovel into suitable containers for disposal.

**7. HANDLING AND STORAGE****Handling**

- Precautions for safe handling : Wear personal protective equipment.  
Use only in well-ventilated areas.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection.

**Storage**

- Conditions for safe storage, including any incompatibilities : Store in original container.  
Keep containers tightly closed in a dry, cool and well-ventilated place.  
Protect from atmospheric moisture and water.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Appropriate engineering controls**

Use with local exhaust ventilation.

**Individual protection measures, such as personal protective equipment**

- |                          |  |
|--------------------------|--|
| Respiratory protection   | : In case of insufficient ventilation, wear suitable respiratory equipment.  |
| Hand protection          | : Latex gloves<br>Gloves must be inspected prior to use.<br>Replace when worn.   |
| Eye protection           | : Safety glasses with side-shields   |
| Skin and body protection | : Protective suit  |
| Hygiene measures         | : Handle in accordance with good industrial hygiene and safety practice.<br>Keep working clothes separately.<br>Remove and wash contaminated clothing before re-use.<br>When using, do not eat, drink or smoke.<br>Wash thoroughly after handling. |
| Protective measures      | : Ensure that eyewash stations and safety showers are close to the workstation location.<br>Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.<br>Avoid breathing dust.            |

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- |                |                      |
|----------------|----------------------|
| Physical state | : solid              |
| Colour         | : colourless         |
| Odour          | : ammoniacal         |
| pH             | : ca. 8.0 at , 20 °C |

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Flash point	: Note: Not applicable
Flammability	: The product is not flammable.
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapour pressure	: 66.7 hPa at 20 °C(68 °F)
Density	: ca. 1.58 g/cm <sup>3</sup> at 20 °C
Water solubility	: 220.0 g/l at 20 °C
Ignition temperature	: Note: Not applicable
Decomposition temperature	: ca. 60 °C Note: Decomposition temperature
Molecular weight	: 79.06 g/mol
Bulk density	: ca. 960 kg/m <sup>3</sup>

**10. STABILITY AND REACTIVITY**

Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Hazardous polymerization does not occur.
Conditions to avoid	: To avoid thermal decomposition, do not overheat.

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Incompatible materials to avoid : Acids  
Oxidizing agents  
Nitrates  
Nitrites

Hazardous decomposition products : Fire may cause evolution of:  
Ammonia  
carbon oxides (CO, CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).

**11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : LD50: 1,576 mg/kg  
Species: Rat  
Method: OECD Test Guideline 401

Acute inhalation toxicity : Note: no data available

Acute dermal toxicity : Note: no data available

Skin irritation : Species: reconstructed human epidermis (RhE)  
Result: non-irritant  
Method: OECD Test Guideline 431

Eye irritation : Note: no data available

Sensitisation : Note: no data available

Ammonium bicarbonate : Test Method: Ames test  
Result: negative  
  
: Test Method: Chromosome aberration test in vitro  
Cell type: Chinese Hamster Lung Cells  
Result: negative

**12. ECOLOGICAL INFORMATION****Toxicity**

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Toxicity to fish : LC50: 63.4 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)

: LC50: 68.4 mg/l  
Exposure time: 96 h  
Species: Fish

Toxicity to daphnia and other aquatic invertebrates : EC50: 202 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)

: EC50: 145.6 mg/l  
Exposure time: 48 h  
Species: Ceriodaphnia (water flea)

Toxicity to algae : Note: no data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10: 3.7 mg/l  
Exposure time: 70 d  
Species: Hyallela azteca (Amphipod)

**Persistence and degradability**

Biodegradability : Note: The methods for determining biodegradability are not applicable to inorganic substances.

**Other adverse effects**

Additional ecological information : Do not flush into surface water or sanitary sewer system.

**13. DISPOSAL CONSIDERATIONS**

Disposal methods : In accordance with local and national regulations.

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**14. TRANSPORT INFORMATION****ADR**

Not dangerous goods

**IATA**

Not dangerous goods

**IMDG**

Not dangerous goods

**RID**

Not dangerous goods

**15. REGULATORY INFORMATION****National regulatory information**

Fire Service Law : Not relevant

Poisonous and Deleterious  
Substances Control Law : Not relevant**Other international regulations****Notification status**US. Toxic Substances  
Control Act : On TSCA InventoryAustralia. Industrial Chemical  
(Notification and  
Assessment) Act : On the inventory, or in compliance with the inventoryCanada. Canadian  
Environmental Protection Act  
(CEPA). Domestic  
Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals  
Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. The Toxic : On the inventory, or in compliance with the inventory



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Substances and Hazardous  
and Nuclear Waste Control  
Act

China. Inventory of Existing Chemical Substances : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

**16. OTHER INFORMATION**

	<b>HMIS III</b>	<b>NFPA</b>
Health hazard	: 1	1
Flammability	: 0	0
Physical Hazard	: 0	
Instability	:	0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group