essedielle
ENOLOGIALIMENTAZIONE
SISTEMA DI GESTIONE PER LA SICUREZZA ALIMENTARE
CERTIQUALITY
UNI EN ISO 22000:2018
OPERATORE CONTROLLATO S 1262
CERTIFICATO ICEA BIOLOGICO
essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

SAFETY DATA SHEET

AMMONIUM BICARBONATE

Revision No. 12, November 2023; Complies with Reg (EU) 2020/878

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE MANIFACTURING COMPANY

1.1 Product identification
Trade name: ammonium bicarbonate
Chemical name and synonyms: Ammonium Bicarbonate Food Grade (E503ii)
CAS Number: 1066-33-7
EC Number: 213-911-5
REACH Number: 01-2119486970-26

1.2 Relevant identified uses of the substance/mixture and uses not recommended
Food additive, for professional use only.

1.3 Information about the supplier of the safety data sheet
essedielle srl
S.P. 538 km. 6,950 - CALDARI
66026 ORTONA (CH)
ITALY
Phone: +39 (0) 85 9031315
Qualified persons responsible for the safety data sheet: laboratorio@essedielle.com

1.4 Emergency telephone number: essedielle srl +39 (0) 85 9031315 – 0039 3668134126
Poison Control Center
S.S. Annunziata Hospital – Chieti +39 0871 1551219

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture
Criteria EC Regulation 1272/2008 (CLP):
Pictograms:
GHS07
Hazard class and category codes:
Acute Tox. 4
Hazard indication codes:
H302 Harmful if swallowed.
Harmful product: do not ingest.

2.2 Label elements
Labeling in accordance with Regulation (EC) No. 1272/2008:
Pictograms, warning codes:

GHS07 Warning
Hazard statement codes:
H302 Harmful if swallowed.
Additional hazard statement codes: not applicable
Cautionary advice:
Prevention
P264 Wash hands thoroughly after use.
P270 Do not eat, drink or smoke during use.
Reaction
P301+P312 IF INGESTION: If you feel unwell, contact a POISON CENTER/physician.
P330 Rinse mouth.

Disposal
P501 Dispose of product/recipient in accordance with local/regional/national/international regulations.
Contains:
AMMONIUM BICARBONATE E 503ii

2.3 Other hazards
The substance/mixture meets the criteria for PBT/vPvB according to Regulation (EC) 1907/2006, Annex XIII. No information on other hazards.

3. COMPOSITION/INGREDIENT INFORMATION

3.1 Substances

Substance	Concentration	CAS	EINECS	REACH	Classification
Ammonium bicarbonate 503ii	100%	1066-33-7	213-911-5	01-2119486	Acute Tox. 4, H302

3.2 Mixtures
Not applicable.

4. FIRST AID MEASURES

4.1 Description first aid measures
In case of inhalation: remove the injured person to fresh air. If breathing is difficult give oxygen or practice artificial respiration.
In case of skin contact: remove contaminated clothing immediately. Instantly wash areas of the body that have come in contact with the toxicant, even if only suspected, with plenty of running water and soap if necessary. Wash the body completely (shower or bath).
In case of eye contact: wash immediately with running water with open eyelids for at least 15 minutes. Consult an ophthalmologist. Protect the uninjured eye.
In case of ingestion: the product is harmful and can cause irreversible damage even from a single exposure by ingestion. Do not induce vomiting or emesis under any circumstances. Seek immediate medical attention.

4.2 Main symptoms and effects, both acute and delayed
No data available.

4.3 Indication of any need for immediate medical attention and special treatment
IF SWALLOWED: If you feel unwell, contact a POISON CENTER/physician.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing means
Suitable extinguishing means
Water spray, CO2, foam, chemical powders depending on the materials involved in the fire.
Extinguishing media that should not be used for safety reasons
Water jets. Use water jets only to cool container surfaces exposed to fire.

5.2 Special hazards from combustion products
No data available.

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5.3 Recommendations for fire suppression operators
Use respiratory protection. Safety helmet and full protective clothing. Water mist can be used to protect people engaged in extinguishing. It is also advisable to use self-contained breathing apparatus, especially, if working in closed and poorly ventilated places and in any case if using halogenated extinguishing agents (fluobrene, solkane 123, naf etc.).
Cool containers with water jets.

6. MEASURES IN CASE OF ACCIDENTAL RELEASE

6.1 Personal precautions, personal protective equipment and emergency procedures
6.1.1 For those not taking direct action: move away from the area surrounding the spill or release. Do not smoke. Wear gloves and protective clothing.
6.1.2 For direct interveners: wear gloves and protective clothing. Eliminate all open flames and possible sources of ignition. Do not smoke. Provide adequate ventilation.
Evacuate the hazard area and, if necessary, consult an expert.

6.2 Environmental precautions
Contain the leaks. Notify the appropriate authorities. Dispose of the residue in accordance with applicable regulations.

6.3 Methods and materials for containment and remediation
6.3.1 For containment: collect the product for reuse, if possible, or disposal.
6.3.2 For cleanup: following collection, wash the affected area and materials with water.

6.4 Reference to other sections
See also paragraph 8 and 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not eat or drink while working. Also refer to section 8 for recommended protective equipment.

7.2 Conditions for safe storage, including any incompatibilities
Keep in the original tightly closed container. Do not store in open or unlabeled containers. Keep containers upright and secure, avoiding the possibility of dropping or knocking. Store in a cool place, away from any source of heat and direct exposure to sunlight.

7.3 Specific end uses
None.

8. EXPOSURE CONTROL/INDIVIDUAL PROTECTION

8.1 Control parameters
DNEL
consumers, dermal: 34.2 mg/kg systemic effects, long-term workers, dermal: 57 mg/kg systemic effects, long-term consumers, inhalation: 143.91 mg/m3 acute local and systemic effects workers, inhalation: 160.7 mg/m3 acute local and systemic effects consumers, inhalation: 13.33 mg/m3 local and systemic effects, long-term
workers, inhalation: 62.5 mg/m3 local and systemic effects, long-term

PNEC
freshwater: 0.37 mg/l
freshwater sediment: 0.1332 mg/kg

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seawater: 0.037 mg/l
marine water sediment: 0.01332 mg/kg
intermittent releases: 0.63 mg/l
STP: 1347 mg/l
soil: 74.9 mg/kg

8.2 Exposure controls

Eye protection
None. Operate according to good work practices.

Skin protection
No special precautions are required for normal use. Wear normal work clothes.

Hand protection
When handling the pure product, use protective gloves (EN 374-1/EN374-2/EN374-other protective equipment as directed by the RSPP.

Respiratory protection
Not necessary for normal use.

Thermal hazards
None

Environmental exposure controls
Use according to good working practices, avoiding dispersing the product into the environment.

9. PHISICAL AND CHEMICAL PROPERTIES

9.1 Information on general physical and chemical properties

Appearance	White crystalline powder
Shape	Powder
Color	White
Odor	Similar to ammonia
Olfactory threshold	Not determined
Ph value	7.7 sol 10%
CHANGE OF STATE	
Melting point/interval	Not available
Boiling point/interval	Not determined
Flash point	Not determined ASTM D92
Flammability (solids, gases)	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	>30°C
Explosive properties	Non explosive

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Lower flammability limits	Not determined
Upper flammability limits	Not determined
Vapor pressure at 20°C	79 hPa
Density at 20°C	Not determined
Relative density	1,58 g/cm3 (20°C)
Bulk vapor density	ca. 85 kg/m3
Evaporation rate	Not determined
Solubility in/Miscibility with water	Water-soluble
Water solubility	220 g/l (20°C)
Partition coefficient: n-octanol/water	-2,4 logPow
Dynamic Viscosity at 20 °C	Not determined
Kinematic Viscosity	Not determined

9.2 Other information

Molecular mass	Not determined
Conductivity	Not determined
Liposolubility	Not determined
Particular properties groups of substances	
Other Useful Information	None

10. STABILITY AND RESPONSIVENESS

10.1 Responsiveness
No risk of reactivity.

10.2 Chemical stability
Under normal conditions, it is completely stable to air and light.

10.3 Possibility of dangerous reactions
Reaction with strong alkalis, strong acids, exothermic reaction.

10.4 Conditions to be avoided
Do not heat in order to avoid thermal decomposition.

10.5 Incompatible materials
Strong alkali, nitrate, strong acids.

10.6 Hazardous decomposition products
Ammonia, carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes defined in Regulation (EC) No. 1272/2008
Toxicological information regarding the mixture:

(a) acute toxicity: Harmful product: do not ingest.
(b) skin corrosion/irritation: based on available data the classification criteria are not met.

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(c) severe eye injury/irritation: based on available data the classification criteria are not met.
(d) respiratory or skin sensitization: based on available data, the classification criteria are not met.
(e) germ cell mutagenicity: based on the available data, the classification criteria are not met.
(f) carcinogenicity: based on available data the classification criteria are not met.
(g) reproductive toxicity: based on available data the classification criteria are not met.
(h) specific target organ toxicity (STOT) single exposure: based on available data the classification criteria are not met.
(i) specific target organ toxicity (STOT) repeated exposure: based on available data the classification criteria are not met.
(j) aspiration hazard: based on available data the classification criteria are not met.
LD50 (oral, rat): approx. 1576 mg/kg
LD50 (dermal, rat): > 2000 mg/kg
LC50 (inhalation, rat): > 4.74 mg/l - 4.5 h

12. ECOLOGICAL INFORMATION

12.1 Toxicity
CE10 Pseudomonas putida: 1347 mg/l - 16 h
CE50 Chlorella vulgaris: ca. 1900 mg/l - 120 h
CE50 Daphnia magna: 145.6 mg/l - 48 h
CL50 Oncorhynchus mykiss: 63.4 mg/l - 96 h
NOEC Plants: 749 mg/l - 84 days
Use according to good working practices, avoiding spillage into the environment.

12.2 Persistence and degradability
N.A.

12.3 Bioaccumulation potential
N.A.

12.4 Mobility in soil
N.A.

12.5 Results of PBT and vPvB assessment
vPvB substances: none - PBT substances: none

12.6 Other adverse effects
None.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Do not reuse empty containers. Dispose of them in accordance with current regulations. Any product residues should be disposed of according to current regulations by contacting authorized companies. Recover if possible. Send to authorized disposal facilities or to incineration under controlled conditions. Operate according to current local and national regulations.

14. TRANSPORTATION INFORMATION

14.1 UN Number
Not included in the scope of dangerous goods transport regulations: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

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14.2 UN proper shipping name
N.A.

14.3 Transport hazard class(es).
N.A.

14.4 Packing group
N.A.

14.5 Environmental hazards Marine pollutant
No

14.6 Special precautions for users
N.A.

14.7 Transport of bulk according to MARPOL Annex II and the IBC Code
Bulk transport is not provided.

15. REGULATORY INFORMATION

15.1 Health, safety and environmental regulations and legislation specific to the substance or mixture
Legislative Decree 3/2/1997 No. 52 (Classification, packaging and labeling of dangerous substances).
Legislative Decree 14/3/2003 No. 65 (Classification, packaging and labeling of dangerous compounds).
Legislative Decree 2/2/2002 No. 25 (Risks arising from chemical agents at work).
D.M. Labor 26/02/2004 (Occupational exposure limits);
Ministerial Decree 03/04/2007 (Implementation of Directive No. 2006/8/EC).
Regulation (EC) No 1907/2006 (REACH),
Regulation (EC) No. 1272/2008 (CLP),
Regulation (EC) No.790/2009.
Legislative Decree No. 238 of September 21, 2005 (Seveso Ter Directive).

15.2 Chemical safety assessment
The supplier conducted a chemical safety assessment.

16. OTHER INFORMATION

This sheet cancels and replaces any previous edition.

Main bibliographic sources
Directive 1999/45/EC
Directive 2001/60/EC
Regulation 2008/1272/EC
Regulation 2010/453/EC
ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities.
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition -Van Nostrand Reinold
CCNL - Annex 1
National Institute of Health - National Inventory of Chemical Substances.

The information contained herein is based on our knowledge as of the date above.

It refers only to the product indicated and does not constitute a guarantee of any particular quality.
The user is responsible for ensuring the suitability and completeness of this information in relation to the specific use to be made of it.

LEGEND SYMBOLS
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Service of the Chemical Abstract (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived no-effect level.
EINECS: European inventory of existing chemicals on the market.
GefStoffVO: Ordinance on hazardous substances, Germany.
GHS: General harmonized system of classification and labeling of chemicals.
IATA: International Air Transport Association.
IATA-DGR: Regulations for the transportation of dangerous goods of the "International Air Transport Association"(IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions of the "International Civil Aviation Organization"(ICAO).
IMDG: International Maritime Dangerous Goods Code.
INCI: International nomenclature of cosmetic ingredients.
KSt: Coefficient of explosion.
LC50: Lethal concentration for 50 percent of the population tested.
LD50: Lethal dose for 50 percent of the population tested.
N.A.: Not Available
PNEC: Predicted no-effect concentration.
RID: Regulations concerning the international transport of dangerous goods by rail.
STE: Short-term exposure.
STEL: Short-term exposure limit.
STOT: Specific target organ toxicity.
TLV: Threshold limit value.
TWATLV: Threshold limit value for an 8-hour weighted average exposure per day. (ACGIH standard).
WGK: German water hazard class.