

Ammonium acetate

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IDENTIFICATION

Ammonium acetate

ZVG No: 491337
CAS No: 631-61-8
EC No: 211-162-9

CHARACTERISATION

SUBSTANCE GROUP CODE

128120 Ammonium salts
143800 Carboxylic acid salts

STATE OF AGGREGATION

The substance is solid.

PROPERTIES

crystalline
white to yellowish
faint acetic odour

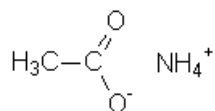
CHEMICAL CHARACTERISATION

Combustible substance, poorly flammable.
Very soluble in water.
Hygroscopic.
Sensitive to moisture.
The substance tends to loose ammonia.

[Substance information in Wikipedia](#)

FORMULA

$C_2H_7NO_2$



Molar mass: 77,08 g/mol

PHYSICAL AND CHEMICAL PROPERTIES

[Melting point](#) | [Solubility](#) |
[Hazardous reactions](#)

MELTING POINT

Melting point: 114 °C

Reference: [07520](#)

SOLUBILITY IN WATER

Concentration: 1480 g/l

Temperature: 4 °C

Reference: [07520](#)

HAZARDOUS REACTIONS

Decomposition products

Ammonia
stronger heating -->
Nitrous gases

Hazardous chemical reactions

Risk of explosion in contact with:

5-azido tetrazolium
gold compounds
sodium hypochlorite

The substance can react dangerously with:
strong oxidizing agents

SAFE HANDLING

[Handling](#) | [Storage](#) | [Fire and explosion protection](#) | [Personal protection](#) | [Disposal considerations](#) |
[Accidental release measures](#) | [Fire fighting measures](#)

TECHNICAL MEASURES - HANDLING

Workplace

Select ventilation measures according to the other used substances.

If there is a chance that dusts may be released, then the work room must provide adequate ventilation.

Washing facility at the workplace required.

Equipment

Consider emission limit values, a purification of waste gases if necessary.

Containers are to be marked clearly.

Advice on safer handling

Take care to keep workplace clean and dry.

Do not leave container open.

Sufficient ventilation must be guaranteed for refilling, transfer, or open use.
Fill only into clearly marked containers.
Avoid rising dust.

TECHNICAL MEASURES - STORAGE

Storage

Do not use any food containers - risk of mistake.
Containers have to be marked clearly and permanently.
Keep container tightly closed.
Keep container tightly closed in a cool, dry and well-ventilated place.
Substance is hygroscopic, protect from moisture.

Conditions of collocated storage

Storage class 10 - 13 (Other liquids and solids)

Only substances of the same storage class should be stored together.

Collocated storage with the following substances is prohibited:

- Pharmaceuticals, foods, and animal feeds including additives.
- Infectious, radioactive und explosive substances.
- Strongly oxidizing substances of storage class 5.1A.

Under certain conditions the collocated storage with the following sub-stances is permitted (For more details see [TRGS 510](#)):

- Gases.
 - Flammable liquids of storage class 3.
 - Other explosive substances of storage class 4.1A.
 - Pyrophoric substances.
 - Substances liberating flammable gases in contact with water.
 - Oxidizing substances of storage class 5.1B.
 - Ammonium nitrate and preparations containing ammonium nitrate.
 - Organic peroxides and self reactive substances.
 - Combustible and non combustible acutely toxic substances of storage classes 6.1A and 6.1B.
- The substance should not be stored with substances with which hazardous chemical reactions are possible.

TECHNICAL MEASURES - FIRE AND EXPLOSION PROTECTION

Technical, constructive measures

Substance is combustible.
Fire fighting equipment must be available.

PERSONAL PROTECTION

Body protection

Wear an apron or a lab coat.

Respiratory protection

In an emergency (e.g.: unintentional release of the substance) respiratory protection must be worn.
Consider the maximum period for wear.
Respiratory protection: Particle filter P1, colour code white.

Eye protection

Wear glasses with side protection.

Hand protection

If protective gloves are used, the following materials are recommended:
The following information is valid for aqueous, saturated solutions of the substance.
The following materials are suitable for protective gloves (Permeation time \geq 8 hours):
Natural rubber/Natural latex - NR (0,5 mm) (use non-powdered and allergen free products)

Polychloroprene - CR (0,5 mm)
Nitrile rubber/Nitrile latex - NBR (0,35 mm)
Butyl rubber - Butyl (0,5 mm)
Fluoro carbon rubber - FKM (0,4 mm)
Polyvinyl chloride - PVC (0,5 mm)

The times listed are suggested by measurements taken at 22 °C and constant contact. Temperatures raised by warmed substances, body heat, etc. and a weakening of the effective layer thickness caused by expansion can lead to a significantly shorter breakthrough time. In case of doubt contact the gloves' manufacturer. A 1.5-times increase / decrease in the layer thickness doubles / halves the breakthrough time. This data only applies to the pure substance. Transferred to mixtures of substances, these figures should only be taken as an aid to orientation.

Occupational hygiene

Take heed of usual occupational hygiene measures when handling chemical substances, especially wash the skin with soap and water before breaks and at the end of work and apply fatty skin-care products after washing.

DISPOSAL CONSIDERATIONS

Non-hazardous waste according to Waste Catalogue Ordinance (AVV).

If there is no way of recycling it must be disposed of in compliance with the respective national and local regulations.

Collection of small amounts of substance:

Collect in container for inorganic solids.

Neutral solutions (pH-control):

Place in a collection container for salt solutions, adjust for a pH value of 6-8.

ACCIDENTAL RELEASE MEASURES

Wear a dust mask.

Pick up without creating dust.

Afterwards ventilate area and wash spill site.

Endangerment of watert:

Low hazard to waters. Inform the responsible authorities when very large quantities get into water, drainage, sewer, or the ground.

FIRE FIGHTING MEASURES

Suitable extinguishing media

Water (spray - not splash)

Alcohol resistant foam

Dry extinguishing powder

Carbon dioxide

Instructions

Cool surrounding containers with water spray.

If possible, take container out of dangerous zone.

Heating causes a rise in pressure, risk of bursting and explosion.

Shut off sources of ignition.

Special protective equipment

In the case of a fire hazardous substances can be released.

Nitrous gases (nitric oxides)

Carbon monoxide and carbon dioxide

Wear self-contained breathing apparatus and special tightly sealed suit.

REGULATIONS

[GHS Classification/Labelling](#) | [Water hazard class](#) | [Air quality control](#) | [Transport Regulations](#) | [Technical rules](#) | [Regulations of accident insurers](#)

EUROPEAN GHS CLASSIFICATION AND LABELLING

Not a dangerous substance according to GHS.
Manufacturer's specification by Sigma-Aldrich

Reference: [01221](#)

State: 2021

Checked: 2021

GERMAN WATER HAZARD CLASS

Substance No: 2611

WGK 1 - low hazard to waters

Classification according to the announcement of the list of substances hazardous to water in the Federal Register of 10.08.2017, last update 24.11.2023

TECHNICAL INSTRUCTIONS ON AIR QUALITY CONTROL ([TA LUFT](#))

Chapter 5.2.5 Organic Substances, dust

To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values:

Mass flow: 0,20 kg/hr

or

Mass conc.: 20 mg/m³

The mass per unit volume of 0,15 g/m³ in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h.

TRANSPORT REGULATIONS

Not subject to transport regulations.

Reference: [01221](#)

TECHNICAL RULES FOR HAZARDOUS SUBSTANCES

[TRGS 500](#)

Schutzmaßnahmen; Ausgabe September 2019

[TRGS 509](#)

Lagern von flüssigen und festen Gefahrstoffen in ortsfesten Behältern sowie Füll- und Entleerstellen für ortsbewegliche Behälter; Ausgabe Juni 2022

[TRGS 510](#)

Lagerung von Gefahrstoffen in ortsbeweglichen Behältern; Ausgabe Januar Dezember 2020

[TRGS 800](#)

Brandschutzmaßnahmen; Ausgabe Dezember 2010

REGULATIONS OF GERMAN ACCIDENT INSURERS

[DGUV Regel 112-190](#)

Benutzung von Atemschutzgeräten; Ausgabe November 2021
(in German only)

LINKS

[DGUV Information 213-098: List of substances - lesson in schools \(in German only\)](#)

REFERENCES

Quelle: 00001

IFA: Erfassungs- und Pflegehandbuch der GESTIS-Stoffdatenbank (nicht öffentlich)

Data acquisition and maintenance manual of the GESTIS substance database (non-public)

Quelle: 01211

GHS-Sicherheitsdatenblatt, Merck

GHS Material Safety Data Sheet, Merck

Quelle: 01221

GHS-Sicherheitsdatenblatt, Sigma-Aldrich

GHS Material Safety Data Sheet, Sigma-Aldrich

Quelle: 05300

[TRGS 510](#) "Lagerung von Gefahrstoffen in ortsbeweglichen Behältern" Ausgabe Dezember 2020

Quelle: 06002

L. Roth, U. Weller

"Gefährliche Chemische Reaktionen" Loseblattsammlung mit Ergänzungslieferungen, ecomed-Verlag
("Dangerous chemical reactions" loose-leaf collection with supplement deliveries)

Quelle: 07520

Europäische Chemikalienagentur ECHA: Informationen über registrierte Substanzen

European Chemicals Agency ECHA: Information on registered substances

Quelle: 07580

Bekanntmachung der Liste der wassergefährdenden Stoffe im Bundesanzeiger vom 10.08.2017,
zuletzt geändert 24.11.2023

Quelle: 07795

H. Geerßen "GloSaDa 2000 Plus - Glove Safety Data"

Quelle: 99999

Angabe des Bearbeiters

Indication of the editor

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