

**Safety data sheet
according to 1907/2006/EC, Article 31**

revised on: 26.02.2024

Version number 5 (replaces version 4)

Creation Date: 19.09.2016

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** Zinc acetate dihydrate**Article number:** 105, 112**CAS Number:**

5970-45-6

EC number:

209-170-2

Registration number

A registration number for this substance is not available because the substance or its use is exempted from registration under Article 2 UK REACH Regulation (EC) No 1907/2006, the annual tonnage does not require registration or registration is foreseen for a later date.

1.2 Relevant identified uses of the substance or mixture and uses advised against

The product is not intended for use by consumers

For professional users only

Life cycle stages

F Formulation or re-packing

IS Use at industrial Sites

Sector of Use

SU9 Manufacture of fine chemicals

SU24 Scientific research and development

Product category

PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents

PC21 Laboratory chemicals

PC29 Pharmaceuticals

PC40 Extraction agents

Process category

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC5 Mixing or blending in batch processes

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC15 Use as laboratory reagent

Environmental release category

ERC1 Manufacture of the substance

ERC2 Formulation into mixture

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC6a Use of intermediate

Application of the substance / the mixture

Industrial use

Chemical analytics

Laboratory chemical

1.3 Details of the supplier of the safety data sheet**Manufacturer/Supplier:**

Th. Geyer GmbH & Co. KG

Dornierstr. 4 – 6

D-71272 Renningen

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Tel.: +49(0)7159-1637-0, Fax:+49 (0)7159/18417

www.thgeyer.de

sicherheitsdatenblaetter@thgeyer.de

- **Further information obtainable from:** Product management department

- **1.4 Emergency telephone number:**

National Poisons Information Service

City Hospital

Dudley Road

Birmingham B18 7QH

Tel.:Emergency: (00 44) 87 06 00 62 66

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**



GHS09 environment

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the GB CLP regulation.

- **Hazard pictograms**



GHS07 GHS09

- **Signal word** Warning

- **Hazard statements**

H302 Harmful if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

- **Precautionary statements**

P262 Do not get in eyes, on skin, or on clothing.

P273 Avoid release to the environment.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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SECTION 3: Composition/information on ingredients

- **3.1 Substances**
- **CAS No. Description**
CAS: 5970-45-6 Zinc acetate dihydrate
- **Identification number(s)**
- **EC number:** 209-170-2

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
First aider needs to protect himself.
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Remove person from danger zone.
Supply fresh air.
Seek immediate medical advice.
- **After skin contact:**
Wash with plenty of soap and water, take off soiled clothes and shoes.
Call a doctor immediately.
Take into account possible simultaneous inhalation.
- **After eye contact:**
Protect unharmed eye.
Rinse out opened eye for several minutes under running water.
Seek immediate medical advice.
- **After swallowing:**
Rinse mouth thoroughly with water.
A person vomiting while laying on their back should be turned onto their side.
Have them drink water (maximum 2 drinking glasses).
Consult a physician.
- **Information for doctor:** Please observe safety data sheet/label.
- **4.2 Most important symptoms and effects, both acute and delayed**
Gastric or intestinal disorders
Cramp
Irritation and corrosivity
Causes severe eye irritation.
In certain cases, the symptoms of poisoning may only appear after a longer period of time.
- **Hazards**
Danger of pneumonia.
Strongly irritant to corrosive
- **4.3 Indication of any immediate medical attention and special treatment needed**
In case of lung irritation, administer glucocorticoid dose aerosol.
If necessary oxygen respiration treatment.
Monitor circulation.
Symptomatic treatment.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet.

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- **5.2 Special hazards arising from the substance or mixture**
Non-flammable.
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon oxides (CO, CO₂)
Zinc/zinc oxides
Formation of hazardous vapours possible due to ambient fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Safely prevent extinguishing water from entering groundwater or surface water.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Clear the danger zone.
Avoid contact with eyes and skin.
Do not breathe dust.
Wear protective clothing.
Avoid formation of dust.
- **6.2 Environmental precautions:** Do not allow to enter sewers/surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Cover the sewerage system.
Collect, dike and pump out.
Pick up dry.
Dispose contaminated material as waste according to section 13.
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Apply the general protective and hygienic measures when handling chemicals.
- **Information about fire - and explosion protection:** The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Prevent any seepage into the ground.
Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from water.
- **Further information about storage conditions:**
Store in dry conditions.
Protect from humidity and water.
- **Storage class:** 13

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- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Labsolute@protective

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

NBR: Acrylonitrile butadiene rubber

Material thickness > 0.11 mm

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

level 6 for application > 480 min

- **Eye/face protection**



Tightly sealed goggles

- **Body protection:**



Protective work clothing (e. g. safety shoes EN ISO 20345, long-sleeved protective working garments).

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Physical state**

Solid

- **Colour:**

Colourless

- **Odour:**

Odourless

- **Melting point/freezing point:**

237 °C

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| | |
|---|---|
| <ul style="list-style-type: none"> · Boiling point or initial boiling point and boiling range · Flammability · Lower and upper explosion limit · Lower: · Upper: · Flash point: · Decomposition temperature: · pH · Viscosity: · Kinematic viscosity · Dynamic: · Solubility · water: · Partition coefficient n-octanol/water (log value) · Vapour pressure: · Density and/or relative density · Density at 20 °C: · Relative density · Vapour density · Particle characteristics | <p>Undetermined.</p> <p>Product is not flammable.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not applicable.</p> <p>100 °C (dec.)</p> <p>6–7</p> <p>Not applicable.</p> <p>Not applicable.</p> <p>430 g/l</p> <p>Not determined.</p> <p>Not applicable.</p> <p>1.74 g/cm³</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not applicable.</p> <p>See section 3.</p> |
| <ul style="list-style-type: none"> · 9.2 Other information · Appearance: · Form: · Important information on protection of health and environment, and on safety. · Ignition temperature: · Explosive properties: · Molecular weight · Change in condition · Evaporation rate | <p>Solid material</p> <p>Not determined.</p> <p>Product does not present an explosion hazard.</p> <p>219.49 g/mol</p> <p>Not applicable.</p> |
| <ul style="list-style-type: none"> · Information with regard to physical hazard classes · Explosives · Flammable gases · Aerosols · Oxidising gases · Gases under pressure · Flammable liquids · Flammable solids · Self-reactive substances and mixtures · Pyrophoric liquids · Pyrophoric solids · Self-heating substances and mixtures · Substances and mixtures, which emit flammable gases in contact with water · Oxidising liquids · Oxidising solids · Organic peroxides · Corrosive to metals | <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> |

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· Desensitised explosives

Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** Stable when stored and handled properly.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Protect from moisture.
- **10.5 Incompatible materials:** Avoid contact with other chemicals.
- **10.6 Hazardous decomposition products:** In case of fire: see section 5.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed.

- **LD/LC50 values relevant for classification:**

| | | |
|------|------|-----------------|
| Oral | LD50 | 794 mg/kg (rat) |
|------|------|-----------------|

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties** Substance is not listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

| | |
|------|------------------------------|
| EC50 | 1.7 mg/l (seaweed) (72-96 h) |
|------|------------------------------|

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Observe local (country-specific) regulations and laws.

This product and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Chemicals must be disposed of in accordance with the respective national regulations.

European waste catalogue

| | |
|----------|--|
| 07 00 00 | WASTES FROM ORGANIC CHEMICAL PROCESSES |
| 07 01 00 | wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals |
| 07 01 99 | wastes not otherwise specified |
| HP6 | Acute Toxicity |
| HP14 | Ecotoxic |

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, IMDG, IATA UN3077

14.2 UN proper shipping name

ADR 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc acetate dihydrate)

IMDG, IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc acetate dihydrate)

14.3 Transport hazard class(es)

ADR



Class

9 (M7) Miscellaneous dangerous substances and articles.

Label

9

IMDG, IATA



Class

9 Miscellaneous dangerous substances and articles.

Label

9

14.4 Packing group

ADR, IMDG, IATA III

14.5 Environmental hazards:

Marine pollutant: Symbol (fish and tree)

Special marking (ADR): Symbol (fish and tree)

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| | |
|---|--|
| · Special marking (IATA): | Symbol (fish and tree) |
| · 14.6 Special precautions for user | Warning: Miscellaneous dangerous substances and articles. |
| · Hazard identification number (Kemler code): | 90 |
| · EMS Number: | F-A,S-F |
| · Stowage Category | A |
| · Stowage Code | SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9. |
| · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · Transport category | 3 |
| · Tunnel restriction code | (-) |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · UN "Model Regulation": | UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC ACETATE DIHYDRATE), 9, III |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Inventory of Hazardous Chemicals** Substance is not listed.
- **Poisons Act**
- **Regulated explosives precursors** Substance is not listed.
- **Regulated poisons** Substance is not listed.
- **Reportable explosives precursors** Substance is not listed.
- **Reportable poisons** Substance is not listed.
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS07 GHS09

- **Signal word** Warning
- **Hazard statements**
H302 Harmful if swallowed.
H410 Very toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P262 Do not get in eyes, on skin, or on clothing.
P273 Avoid release to the environment.

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- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category E1** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.
- **Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
Substance is not listed.
- **National regulations:**
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The application, use and processing of our products are beyond our control and are therefore exclusively your responsibility.

- **Department issuing SDS:** Product management
- **Contact:** Product management
- **Version number of previous version:** 4
- **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- *** Data compared to the previous version altered.**

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