

EC – SAFETY DATA SHEET

according to EC Directive 2001/58/EC

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Trade name:	WUXAL® Zinc
Product-No.:	22305

1 Identification of the preparation and Company	
Preparation:	Zinc-fertilizer suspension 6% Zn
Description:	Aqueous crystal suspension of nutrient salts.
Use:	Fertilizer, preparation for plant nutrition
Manufacturer/Supplier:	AGLUKON Spezialdünger GmbH & Co. KG Telephone: +49 (0)211 5064-0
Address:	Heerdtter Landstraße 199 40549 Düsseldorf, Germany Telefax: +49 (0)211 5064-247
Informing department:	See chapter 16
Emergency telephone (D/Berlin): Telephone No.: +49 (0)30 19240 (Day and Night)	

2 Composition/Information on Ingredients	
<u>Harmful components</u>	
<u>Marking</u>	<u>EC-No.</u> <u>CAS-No.</u> <u>Content %</u> <u>Danger symbol</u> <u>R-phrases</u>
None	The product contains no substances classified as hazardous to health in concentrations which should be taken into account according to EC directive.
Additional information:	The fertilizer composition is no hazardous preparation.

3 Hazards Identification	
Hazards designation:	None
Particular hazards (R-phrases):	None
Special hazard information:	None
Harmful effects/symptoms:	Unknown.
Relevant information:	No hazardous product as specified in Directive 67/548/EEC. The regulations and requirements of the Directive 96/82/EC (Seveso II) and the Directive 2003/105/EC do not apply to the preparation.

4 First-Aid Measures	
General hints:	Remove soiled clothes.
after inhalation	Take out to the fresh air, rest quiet and warm. Medical assistance is necessary in case of difficulty in breathing.
of vapours/aerosols:	
after skin contact:	Immediately wash affected skin regions thoroughly with soap and plenty of water. Summon doctor if necessary.
after eyes contact:	Thoroughly rinse eyes with lids wide apart under running water (protect the uninjured eye, remove contact lenses). Summon eye specialist if necessary.
after ingestion:	Immediately rinse the mouth with water, then drink a lot of water. Consult the doctor in case of persistent trouble.

5 Fire-Fighting Measures	
Suitable extinguishing media:	Water, carbon dioxide, dry extinguishing media, foam.
Unsuitable extinguishing media:	Unknown
Special risks:	The material itself is harmless and hardly inflammable. Ambient fire may liberate hazardous vapours. If larger quantities of the product are on fire, the formation of nitrous gases, ammonia and sulphuric acid gases is possible. Do not stay in dangerous zone without suitable protecting clothes and selfcontained breathing apparatus.
Special equipment to protect firefighters:	
Other information:	Contain escaping vapours with water mist. Prevent fire-fighting water from entering surface water or groundwater.

6 Accidental Release Measures	
Personal precautions:	Wear suitable protecting clothes. Avoid product contact and formation of vapours/aerosols. Do not inhale vapours/aerosols. In event of vapours/aerosols wear respiratory protection, safety glasses and gloves.
Specific hazards:	The material itself is harmless and hardly inflammable. Ambient fire may liberate hazardous vapours. If larger quantities of the product are on fire, the formation of nitrous gases, ammonia and sulphuric acid gases is possible.
Special equipment to protect firefighters:	Do not stay in dangerous zone without suitable protecting clothes and selfcontained breathing apparatus.
Other information:	Contain escaping vapours with water mist. Prevent fire-fighting water from entering surface water or groundwater.
Environmental precautions:	Ensure that the product does not reach the ground-water, water bodies or the

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Methods for cleaning up/taking up:	drainage system. Take up with absorption media. Disposal of contaminated material as waste according to section 13.
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7	Handling and Storage
	<u>Handling</u>
Advice as to safe handling:	Wear suitable protecting clothes. Avoid product contact and formation of vapours/aerosols. Do not inhale vapours/aerosols. In event of vapours/aerosols wear respiratory protection, safety glasses and gloves. Remove soiled and soaked clothes and wash hands and face after work (see section 8).
Advice to prevent fire and explosion:	No further requirements.
	<u>Storage</u>
Stockrooms and containers required:	Protect the product from impurity and drying up. Keep containers densely closed. Do not store in metal containers (corrosion risk). It is recommended to design stockrooms so that the product is well-protected from weather factors, solar radiation, heat up, dry up and impurities. Keep containers densely closed and store in a cool dry place. Ensure high standard of housekeeping in the storage area. Do not store in metal containers (corrosion risk). Temperature in stockrooms not below +5 °C and above +40 °C.
Storage together with other materials:	Do not store together with food and luxury food, beverage and animal feed.
Storage class:	12 Liquid product with no fire risk. <small>(National regulation, Germany: VCI-concept)</small>
VbF class:	None <small>(National regulation, Germany)</small>
Further information on storage conditions:	Do not store below +5°C and above +40°C .

8	Exposure Controls / Personal Protection
	<u>Exposure limits</u>
	The preparation contains no constituents with occupational exposure limits resp. biological occupational exposure limits requiring monitoring.
	<u>Personal protective equipment</u>
	Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
Respiratory protection:	Respiratory protection necessary when vapours/aerosol and wet fog are generated. Filter P 2 (acc. to DIN 3181) for solid and liquid particles.
Hand protection:	Rubber or plastic gloves In full or splash contact: Glove material: nitrile rubber Layer thickness: 0.11 mm Breakthrough time: > 480 Min.
Eye protection:	Safety goggles
Skin and body protection:	Closed working clothes
Industrial hygiene:	Apply skin-protective barrier cream. Do not eat and drink at work. Change contaminated clothing. Wash hands after working with substance.

9	Physical and Chemical Properties
	<u>Appearance</u>
Form/physical state:	Aqueous crystal suspension
Colour:	Green
Odour:	Product-specific

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Data relevant to safety

pH (original state):	Approx. 6	
pH at 16 g/l H ₂ O and 20°C:	Approx. 7	
Change in physical state:	> 100°C – evaporation of water	
Boiling point/-range:	Not determined	°C
Melting point/-range:	Not determined	°C
Flash point:	Not applicable	°C
Inflammability:	Not determined	
Ignition temperature:	Not determined	°C
Self-ignition:	The product is not spontaneously inflammable.	
Fire-promotive properties:	The product is not fire-promotive.	
Explosion hazard:	The product has no explosion hazardous properties.	
Vapor pressure (at °C):	Not determined	hPa
Density (at 20°C):	Approx. 1,4	g/cm ³
Solubility in water (at 20°C):	Approx. 200	g/l

Method:

10 Stability and Reactivity

Conditions to avoid: Direct solar radiation, heat up and dry up.
 Temperatures above +40°C.

Materials to avoid: Strong alkaline materials, strong acid materials.

Hazardous decomposition products: Reacts with alkalis setting ammonia free.

Thermic decomposition products: If larger quantities of the product are on fire, the formation of nitrous gases, ammonia and sulphuric acid gases is possible.

Further information: No decomposition if correctly used.
 The product is stable under normal conditions.

11 Toxicological Information

Toxicological tests

Acute toxicity Toxicological data are not available.
 Toxicological effects are unknown.
Property that must be anticipated on the basis with comparable preparations:
 LD50 (oral, rat): >10.000 mg/kg

Further toxicological information

After inhalation of vapours/aerosol and wet fog: Slight irritations of the mucous membranes and coughing.

After skin contact: Slight irritations.

After eye contact: Slight irritations.

After swallowing: Nausea and vomiting.

After uptake of large quantities: Disturbed electrolyte balance.

Other Notes: The following applies to zinc compounds in general:
 Only slightly absorbable via the gastrointestinal tract.
 Adstringent effect on mucous membranes.
 Metal-fume fever after inhalation of large quantities.

Further data

Further hazardous properties cannot be excluded.
 The product should be handled with the care usual when dealing with chemicals.
 No toxicological effects are to be expected when the product is handled and used with due care and attention.

12 Ecological Information

General information: Fertilizer material.
 Ensure that the product does not reach the ground-water, water bodies or the drainage system.

Further ecologic data

Depending on the concentration, phosphorus and/or nitrogen compounds may contribute to the eutrophication of drinking- water supplies.
The following applies to soluble zinc compounds in general:
 Inorganic zinc salts have a bactericidal effect. From >10 mg Zn/l on, the bacteriological self-purification of water is inhibited or suppressed.
 Toxic for water organisms.
 Lethal for fish from 0,1 mg/l in soft water.
 Fish toxicity: LC50 (L. idus) 21 mg/l (ZnCl₂);
 zinc ions: toxic to Daphnia magna from 0,3 mg/l.

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Water pollution class:	Contamination of ground water involves risks for drinking water catchment. No ecological problems are to be expected when the product is handled and used with due care and attention. WGK 2 – Water polluting preparation (own classification) (National regulation, Germany)
	Do not allow to enter waters, waste water, sewerage, or soil.

13	<u>Disposal Considerations</u>
	<u>Product</u>
Recommendation:	Disposal of product rests in accordance with the official local disposal regulations.
According to european waste regulations:	
Waste Code (EWC-No.):	061000
Waste Name:	Wastes from the manufacture, formulation, supply and use of nitrogen chemicals, nitrogen chemical processes and fertilizer manufacture.
	<u>Contaminated packaging</u>
Recommendation:	Disposal of contaminated packages in accordance with the local official disposal regulations.
Cleaners:	Water

14	<u>Transport Information</u>
	<u>Surface transport</u>
	No hazardous good.
	<u>River transport</u>
	No hazardous good.
	<u>Sea navigation transport</u>
	No hazardous good.
	<u>Air transport</u>
	No hazardous good.
	<u>Further information</u>
	The transport regulations are cited according to international regulations and in the form applicable in Germany (GGVS/GGVE). Possible national deviations in other countries are not considered.

15	<u>Regulatory Information</u>
	<u>EC Directives</u>
Directive 67/548/EEC	Danger symbol and designation: contains R-phrases: None contains S-phrases: None
Directive 96/82/EC and Directive 2003/105/EC (Seveso II)	None
	<u>National regulations Germany</u>
Particular labelling of certain preparations:	No labelling duty according to the Hazardous Materials Regulation (Germany).
Employment limitations:	None
Interference regulations – BimSchV:	None
Classification according to VbF:	None
Technical Regulations Air:	None
Storage class according to VCI-concept:	12 Liquid product with no fire risk.
Water pollution class:	WGK 2 – Water polluting preparation (own classification)
Further regulations, limitations and prohibition regulations:	None

16	<u>Other information</u>
	<u>Relevant R-Phrases (Number and full text)</u>
	For section 2:
	<u>Reason for alteration</u>
	General update.
	<u>Further information</u>
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Contact persons:	Peter Wehr Dr. Bernhard Kloth
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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.