

**ENECO DISTRIBUTION**

 SARL au capital de 10.000 €  
 2 Avenue de Monthorin  
 35420 LOUVIGNE DU DESERT  
 SIRET 750 266 728 00013 - APE 4618Z  
 Tél. 02.99.98.55.23 - Fax 02.99.98.55.25

## SAFETY DATA SHEET

prepared in accordance with Annex II of the REACH Regulation EC 1907/2006, Regulation (EC) 1272/2008, Regulation (EC) 453/2010 and Regulation (EC) 830/2015.

Version 4.0

Revision Date 01.06.2017  
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<b>SECTION 1: Identification of the substance/mixture and of the company/undertaking</b>	
<b>1.1. Product identifier</b>	
<b>Product name</b>	<b>Akdolit® Hydrolit MG</b>
Synonyms	Akdolit® Hydrolit-MG
<b>Trade name</b>	<b>Magnesite/Hydrolit-Mg 0,5/2,5mm-bag</b>
<b>1.2. Relevant identified uses of the substance or mixture and uses advised against</b>	
Find hereunder a general description of uses.	
Water treatment chemicals	
There are no uses advised against.	
<b>1.3. Details of the supplier of the safety data sheet</b>	
Company	<b>Rheinkalk GmbH</b>
Address	Am Kalkstein 1 42489 Wülfrath Germany
Telephone	+492058170
Telefax	+492058172210
E-mail of competent person responsible for SDS in the MS or in the EU:	msds@rheinkalk.de
<b>1.4. Emergency telephone number</b>	
Emergency telephone number (Europe)	<b>112</b> <i>This telephone number is available 24 hours per day, 7 days per week.</i>
Poison Information Centre telephone number	+ 32 70 245 245 for Belgium
Emergency telephone number (Company)	<b>+49 2058 17 0</b> <i>This telephone number is available 24 hours per day, 7 days per week.</i>
<b>SECTION 2: Hazards identification</b>	
<b>2.1. Classification of the substance or mixture</b>	
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.	

**Further information**

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2. Label elements**
Hazard pictograms

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Signal word

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Hazard statements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Precautionary statements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

**2.3. Other hazards**

No other hazards identified.

**SECTION 3: Composition/information on ingredients**
**3.2. Mixture**

Identification of the mixture: Akdolit® Hydrolit MG

Hazardous ingredients:

Chemical name	CAS-No.	EC-No.	REACH No.	Index-No.	Weight percent	REGULATION (EC) No 1272/2008
Magnesium hydroxide	1309-42-8	215-170-3	01-2119488756-18	—	50	—
Magnesium oxide	1309-48-4	215-171-9	—	—	50	—

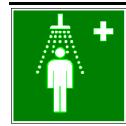
For the full text of the H-Statements mentioned in this Section, see Section 16.


**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
General advice

 Consult a physician for all exposures except for minor instances.  
 Show this safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air immediately. Get medical attention immediately.

Skin contact

 Wash off immediately with plenty of water for at least 15 minutes.  
 Call a physician if irritation develops or persists.

<p><u>Eye contact</u></p> 	<p>If in eyes, rinse with water for 15 minutes. Call a physician if irritation persists.</p>
<p><u>Ingestion</u></p>	<p>Immediately give large quantities of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.</p>
<p><b>4.2. Most important symptoms and effects, both acute and delayed</b></p>	
<p>Diarrhoea</p>	
<p><b>4.3. Indication of any immediate medical attention and special treatment needed</b></p>	
<p>Follow the advice given in section 4.1.</p>	
<p><b>SECTION 5: Firefighting measures</b></p>	
<p><b>5.1. Extinguishing media</b></p>	
<p>Suitable extinguishing media</p>	<p>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water Carbon dioxide (CO<sub>2</sub>) Foam Dry chemical</p>
<p>Unsuitable extinguishing media</p>	<p>none</p>
<p><b>5.2. Special hazards arising from the substance or mixture</b></p>	
<p>None</p>	
<p><b>5.3. Advice for firefighters</b></p>	
<p>Avoid dust formation.</p>	
<p><b>SECTION 6: Accidental release measures</b></p>	
<p><b>6.1. Personal precautions, protective equipment and emergency procedures</b></p>	
<p><b>6.1.1. Advice for non-emergency personnel</b></p>	<p>Keep dust levels to a minimum, and ensure that sufficient ventilation or suitable respiratory protective equipment is used (section 8).</p>
<p><b>6.1.2. Advice for emergency responders</b></p>	<p>See section 6.1.1</p>
<p><b>6.2. Environmental precautions</b></p>	
<p>Try to prevent the material from entering drains or water courses. Do not allow uncontrolled discharge of product into the environment.</p>	

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**6.3. Methods and materials for containment and cleaning up**

Keep the material dry if possible.  
 Pick up the product mechanically in a dry way.  
 Use vacuum suction unit, or shovel into bags.

**6.4. Reference to other sections**

For more information on exposure controls/personal protection or disposal considerations, please check section 8 and 13.

**SECTION 7: Handling and storage**
**7.1. Precautions for safe handling**

<b>7.1.1. Protective measures</b>	Keep dust levels to a minimum. Minimise dust generation. Enclose dust sources, use exhaust ventilation (dust collector at handling points). Handling systems should preferably be enclosed. When handling bags usual precautions should be paid to the risks outlined in the Council Directive 90/269/EEC.
<b>7.1.2. Advice on general occupational hygiene</b>	All ventilation systems should be filtered before discharge to atmosphere.

**7.2. Conditions for safe storage, including any incompatibilities**

Keep tightly closed in a dry, cool and well-ventilated place.  
 Store at room temperature.

**7.3. Specific end use(s)**

none

**SECTION 8: Exposure controls/personal protection**
**8.1. Control parameters**
Occupational exposure limit

Chemical name	Form	Limit value	Legal basis
Magnesium hydroxide	No data available	No data available	No data available
Magnesium oxide	8h TWA	10 mg/m <sup>3</sup>	Arrêté royal du 19 mai 2009, MONITEUR BELGE - 11.06.2009, p. 41413

Derived No Effect Level
**Workers**

Chemical name	Exposure routes	Acute local effects	Acute systemic effects	Long-term local effects	Long-term systemic effects
Magnesium hydroxide	Oral	Not required	Not required	Not required	Not required
	Inhalation	No hazard identified	117,54 mg/m <sup>3</sup>	No hazard identified	117,54 mg/m <sup>3</sup>
	Dermal	No hazard identified	16,67 mg/kg bw/day	No hazard identified	16,67 mg/kg bw/day
Magnesium oxide	Oral	Not required	Not required	Not required	Not required
	Inhalation	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

**Consumers**

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Chemical name	Exposure routes	Acute local effects	Acute systemic effects	Long-term local effects	Long-term systemic effects
Magnesium hydroxide	Oral	no exposure expected	10 mg/kg bw/day	no exposure expected	10 mg/kg bw/day
	Inhalation	No hazard identified	34,78 mg/m3	No hazard identified	34,78 mg/m3
	Dermal	No hazard identified	10 mg/kg bw/day	No hazard identified	10 mg/kg bw/day
Magnesium oxide	Oral	No data available	No data available	No data available	No data available
	Inhalation	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

**Predicted No Effect Concentration**

Chemical name	Environmental protection target							
	Fresh water	Fresh water sediment	Marine water	Marine sediment	Food chain	Microorganisms in sewage treatment	Soil	Air
Magnesium hydroxide	0,1 mg/l	0,082 mg/kg sediment dw	0,01 mg/l	0,0082 mg/kg sediment dw	66,67 mg/kg food	1 mg/l	0,0191 mg/kg soil dw	No data available
Magnesium oxide	No data available	No data available	No data available	No data available	No data available	No data available	No data available	No data available

**8.2. Exposure controls**

To control potential exposures, generation of dust should be avoided. Further, appropriate protective equipment is recommended. Eye protection equipment (e.g. goggles or visors) must be worn, unless potential contact with the eye can be excluded by the nature and type of application (i.e. closed process). Additionally, face protection, protective clothing and safety shoes are required to be worn as appropriate.

**8.2.1. Appropriate engineering controls**

Handling systems should preferably be enclosed or suitable ventilation installed to maintain atmospheric dust below the OES, if not wear suitable protective equipment.

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

**8.2.2.1. Eye/face protection**



For powders, tight fitting goggles with side shields, or wide vision full goggles. It is also advisable to have individual pocket eyewash. Do not wear contact lenses.

**8.2.2.2. Skin protection**



Use approved nitrile impregnated gloves having CE marks. Use clothing fully covering skin, full length pants, long sleeved overalls, with close fittings at openings. Footwear resistant to caustics and avoiding dust penetration.

**8.2.2.3. Respiratory protection**



Use appropriate respiratory protection against particles according to the risk level.

**8.2.2.4. Thermal hazards**

The substance does not represent a thermal hazard, thus special consideration is not required.

**8.2.3. Environmental exposure**

Avoid release to the environment.

<b>controls</b>	
<b>SECTION 9: Physical and chemical properties</b>	
<b>9.1. Information on basic physical and chemical properties</b>	
Appearance:	Colour: white Form: granular
Odour:	odourless
Odour Threshold:	Not applicable
pH:	9,5 - 10,5
Melting point:	1.425 °C; Calculation method
Boiling point:	1.960 °C; Calculation method
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability:	The product is not flammable. lower flammability limit: No data available Upper flammability limit: No data available
Explosive properties:	Not explosive <u>Upper/Lower explosion limit</u> lower: No data available upper: No data available
Vapour pressure:	Not applicable
Vapour density:	Not applicable
Relative density:	2,95 g/cm <sup>3</sup> ; 20 °C; Calculation method
Bulk density	No data available
Solubility(ies):	47,5 mg/l; Calculation method
Partition coefficient: n-octanol/water:	Not applicable
Auto-ignition temperature:	does not ignite
Decomposition temperature:	320 °C; Mg(OH) <sub>2</sub>
Viscosity, kinematic:	Not applicable
Oxidizing properties:	No oxidising properties. (Based on the chemical structure, the substance does not contain a surplus of oxygen or any structural groups known to be correlated with a tendency to react exothermally with combustible material).
<b>9.2. Other information</b>	
No data available	
<b>SECTION 10: Stability and reactivity</b>	
<b>10.1. Reactivity</b>	
MgO + H <sub>2</sub> O → Mg(OH) <sub>2</sub>	
<b>10.2. Chemical stability</b>	
Stable under recommended storage conditions.	

**10.3. Possibility of hazardous reactions**

Exothermic reaction with strong acids.

**10.4. Conditions to avoid**

Minimize exposure to air and moisture to avoid degradation.

**10.5. Incompatible materials**

The product reacts exothermically with acids to form salts.  
Strong acids and oxidizing agents

**10.6. Hazardous decomposition products**

none

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

MgO

Oral LD50 > 5000 mg/kg (rat)

Dermal LD50 > 2000 mg/kg (rabbit)

Mg(OH)<sub>2</sub>

No data available

**Serious eye damage/eye irritation**

MgO

May cause mechanical irritation.

Mg(OH)<sub>2</sub>

May cause eye irritation with susceptible persons.

**Skin corrosion/irritation**

MgO

Prolonged or repeated contact may dry skin and cause irritation.

Mg(OH)<sub>2</sub>

Not irritating

**Respiratory or skin sensitisation**

MgO

No data available

Mg(OH)<sub>2</sub>

Does not cause skin sensitisation.

**STOT - repeated exposure**

MgO

No data available

Mg(OH)<sub>2</sub>

No data available

**Carcinogenicity**

MgO  
No data available  
Mg(OH)<sub>2</sub>  
No data available

**Germ cell mutagenicity**

MgO  
No data available  
Mg(OH)<sub>2</sub>  
No data available

**Reproductive toxicity**

MgO  
No data available  
Mg(OH)<sub>2</sub>  
Animal testing did not show any hazardous effects.

**STOT - single exposure**

MgO  
No data available  
Mg(OH)<sub>2</sub>  
No data available

**Aspiration hazard**

MgO  
No data available  
Mg(OH)<sub>2</sub>  
No data available

**SECTION 12: Ecological information**

**12.1. Toxicity**

<b>12.1.1. Toxicity to fish</b>	MgO: No data available Mg(OH) <sub>2</sub> : Oncorhynchus mykiss (rainbow trout); LC50; 96 h; 775 mg/l;
<b>12.1.2. Toxicity to aquatic invertebrates</b>	MgO: No data available Mg(OH) <sub>2</sub> : Daphnia magna (Water flea); LC50; 48 h; 284 mg/l;
<b>12.1.3. Toxicity to aquatic plants</b>	MgO: No data available Mg(OH) <sub>2</sub> : Chlorella Pyrenoidosa (algae); EC50; 72 h; 100 mg/l;
<b>12.1.4. Toxicity to microorganisms / Toxicity to bacteria</b>	MgO: No data available Mg(OH) <sub>2</sub> : activated sludge; EC50; 3 h; 100 mg/l;
<b>12.1.5. Toxicity to daphnia and other aquatic invertebrates</b>	MgO: No data available Mg(OH) <sub>2</sub> : No data available
<b>12.1.6. Toxicity to soil dwelling organisms</b>	MgO: No data available Mg(OH) <sub>2</sub> : Soil microorganisms; EC50; 24 h;
<b>12.1.7. Toxicity to terrestrial plants</b>	MgO: No data available Mg(OH) <sub>2</sub> : No data available



<b>12.1.8. Other effects</b>	Not applicable
<b>12.1.9. Other information</b>	None
<b>12.2. Persistence and degradability</b>	
Not relevant for inorganic substances.	
<b>12.3. Bioaccumulative potential</b>	
Not relevant for inorganic substances.	
<b>12.4. Mobility in soil</b>	
Slightly mobile in soils	
<b>12.5. Results of PBT and vPvB assessment</b>	
The substance does not meet the criteria for PBT or vPvB substance.	
<b>12.6. Other adverse effects</b>	
No other adverse effects are identified.	
<b>SECTION 13: Disposal considerations</b>	
<b>13.1. Waste treatment methods</b>	
<p>Reuse or recycle whenever possible.          If the reuse or recycling is not possible, disposal must be made according to local and national regulation.          Processing, use or contamination of this product may change the waste management options.          Waste classification code must be determined at the point of waste generation.          Dispose of container and unused contents in accordance with applicable member state and local requirements.          The used packaging is only meant for packing this product; it should not be reused for other purposes.</p>	
<b>SECTION 14: Transport information</b>	
The product is not classified as hazardous for transport (ADR (Road), RID (Rail), IMDG / GGVSea (Sea)).	
<b>14.1. UN number</b>	
not regulated	

<b>14.2. UN proper shipping name</b>	
not regulated	
<b>14.3. Transport hazard class(es)</b>	
<b>14.4. Packing group</b>	
<b>14.5. Environmental hazards</b>	
None.	
<b>14.6. Special precautions for user</b>	
not regulated	
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	
not regulated	
<b>SECTION 15: Regulatory information</b>	
<b>15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
Authorisations	Not required
Restrictions on use	None
Other regulations (European Union)	The product is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant.
National regulatory information	German legislation on water endangering substances VwVwS slightly water endangering (WGK 1)
<b>15.2. Chemical safety assessment</b>	
A Chemical Safety Assessment is not required for this substance.	
<b>SECTION 16: Other information</b>	
Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.	
<b>16.1. Hazard statements</b>	
<b>Preparation</b>	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
<b>Components</b>	
<b>Magnesium hydroxide</b>	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
<b>Magnesium oxide</b>	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
<b>16.2. Precautionary statements</b>	
Not a hazardous substance or mixture according	

	to Regulation (EC) No. 1272/2008.
<b>16.3. Abbreviations</b>	
	<p>DNEL: Derived no effect level            EC50: median effective concentration            LC50: median lethal concentration            LD50: median lethal dose            NOEC: no observable effect concentration            OEL: occupational exposure limit            PBT: persistent, bioaccumulative, toxic chemical            PNEC: predicted no-effect concentration            SDS: Safety data sheet            STEL: short-term exposure limit            STOT: specific target organ toxicity            TWA: time weighted average            vPvB: very persistent, very bioaccumulative chemical</p>
<b>16.4. Literary reference</b>	
<p>Data sheet prepared in accordance with:            Annex II of the REACH Regulation (EC) 1907/2006.            References:            1. Council Directive 90/269/EEC            2. Booklet L64 - Safety Signs and Signals. The Health and Safety (Safety Signs and Signals) Regulations 1996 - Guidance on Regulations (HSE) - ISBN 978 0 7176 6359 0            3. <a href="http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances">http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances</a>            4. The Merck Index (Ed. Merck &amp; Co, Rahway, USA)</p> <p>Unless identified otherwise, the classification of the mixture is derived by hazard assessment of the individual mixture constituents [Regulation (EC) No 1272/2008].</p>	
<b>16.5. Additions, Deletions, Revisions</b>	
<p>Changes since the last version are highlighted in the margin. This version replaces all previous versions.</p>	
<b>Disclaimer</b>	
<p>This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.</p>	

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**End of Safety Data Sheet**