

MATERIAL SAFETY DATA SHEET

Last changed: 2002-11-12

Internal No.:

Replaces date: 2002-06-10

Kemwater™ ALG

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

- | | | |
|-------------------------------------|-----------------------------|--------------------------|
| <input type="checkbox"/> | To be revised | <input type="checkbox"/> |
| <input type="checkbox"/> | Approved for laboratory use | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | Approved by Kemira Kemi AB | <input type="checkbox"/> |

Trade name Kemwater™ ALG
Chemical name Aluminium Sulphate
Synonyms ALG
Application Potable water treatment and paper sizing
Chemical formula

CAS-No. 10043-01-3
EC No. 233-135-0
Index No.

Producer/importer Kemira Kemi AB
Address P O Box 902
Postal code SE-251 09 HELSINGBORG
Country Sweden
Telephone +46-42-17 10 00
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ISSUED BY Marketing Department Kemwater
Emergency number +46-8-33 70 43 (ERC)

2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS-No.	Conc. (wt%)	Classification
1	Aluminum Sulphate		10043-01-3	~55	Xi,R 41
2	Water	231-791-2	7732-18-5	~45	IK

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidizing, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment

3. HAZARDS IDENTIFICATION



HEALTH

Risk of serious damage to eyes. Possible risk for irritation of respiratory organ and skin.

FIRE AND EXPLOSION

The product is not combustible.

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ENVIRONMENT

4. FIRST AID MEASURES

INHALATION

Fresh air and rest.

SKIN CONTACT

Contact a doctor if irritation occurs.

EYE CONTACT

Rinse immediately with water for at least 15 minutes. Keep eyes wide open. Do not rub the eye. Consult a doctor.

INGESTION

Do not induce vomiting.

MEDICAL INFORMATION

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

The product is not combustible. Use extinguishing media depending on the surrounding fire.

IMPROPER EXTINGUISHING MEDIA

No restrictions.

FIRE AND EXPLOSION HAZARDS

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

Use protective clothing and respiratory protection. Risk of poisonous gases being formed.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Use appropriate personal protective clothing as per section 8.

ENVIRONMENTAL PRECAUTIONS

Sweep up and empty into suitable containers for disposal. Dilute with water, neutralize with lime. Contact local authorities for more information. Rinsed packaging material shall be sorted and recycled.

OTHER INFORMATION

Contact police and/or authorities in case of large spill.

7. HANDLING AND STORAGE

HAZARDS IN PARTICULAR

The product is hygroscopic.

STORAGE

Containers should be of acid resistant material. Humid condition during storage. Unlimited storage time when kept dry.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

EXPOSURE CONTROL

The work place and work methods shall be organized in such a way that direct contact with the product is prevented. Equipment for eye rinsing.

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RESPIRATORY PROTECTION

In case of insufficient ventilation, dust mask may be needed.

EYE PROTECTION

Use tightly fitting safety goggles.

HAND PROTECTION

Use Neopren/nitrile/PVC gloves.

PROTECTIVE CLOTHING

Wear suitable clothing (long-sleeved, long-legged etc.) if there is a possibility of direct contact or splashes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Granulate.	Density:	
Colour:	White.	Solubility in water:	100 %
Odour:	Insignificant	Saturation conc.:	
Melting point/range:	110-120°C	Rel dens. sat. air (air=1):	
Expl. limit LEL-UEL%:		Boiling point/range:	
Vapor pressure:		pH concentrate:	
Decomposition temp.:	650°C	Viscosity:	
pH solution:	~ 3 in 10% water sol.	Odour threshold value:	
Flash point:		Rel evap. velocity,:	
Molar weight:	342,14	Water reactive:	
Ignition temp.:			
Rel.vap.dens.(air=1):			
Air reactive:			
log Pow	<<3		
Bulk density:	950-990 kg/m3		

10. STABILITY AND REACTIVITY

STABILITY

The product is stable under normal conditions.

CONDITIONS / MATERIALS TO AVOID

Unalloyed steel, galvanized surfaces. Corrosion might appear in connection with moisture. Protect against moisture to avoid forming of lumps.

HAZARDOUS DECOMPOSITION PRODUCTS

Heating to decomposition temperature might form sulphuric oxide gases.

OTHER INFORMATION

Unlimited storage time when kept dry.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 rat (mg/kg) (OECD 401)	>5000 See ref 1)
Acute dermal toxicity		
Acute toxicity by inhalation		

OTHER TOXICOLOGICAL INFORMATION / LOCAL EFFECTS

Intraperitoneal LD50 mouse mg/kg: 1735

See ref 1).Skin irritation rabbit: not irritating according to OECD Guide-line 404.

Eye irritation rabbit: irritating, risk of severe eye damage, according to OECD Guide-Line 405

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INHALATION

Dust may irritate mucous membranes and the respiratory tract.

SKIN CONTACT

Long term exposure might cause irritation and drying of the skin.

EYE CONTACT

Dust and/or splashes might cause pain and tears. Granules might scratch the cornea. Risk of serious damage to eyes.

INGESTION

Ingestion of significant amounts may cause nausea and vomiting. May cause some irritation to mouth, throat and stomach.

12. ECOLOGICAL INFORMATION

DEGRADABILITY

The product is inorganic and therefore not biodegradable. The precipitation is harmless for algae, daphnia and fish.

BIOACCUMULATION

Not bioaccumulating. Log P_{ow} << 3.

ECOTOXICITY

Not classified as poisonous or harmful to water environment.

Aluminium Sulphate:

LC50/96h fish (OECD 203) 644,4 mg/lit. Ref No. 4

EC50 Algae (OECD 201). Not reached.

OTHER EFFECTS

Large discharges might have a negative influence on water environment, caused by a local low pH.

13. DISPOSAL CONSIDERATIONS

DIRECTIONS FOR DISPOSAL OF MATERIAL / CONTAINER

Dumping or destruction according to local and national regulations.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods:

Yes

No

N/A

OTHER INFORMATION

The product is not classified as dangerous cargo.

15. REGULATORY INFORMATION

Classif.:



EC-Label

Yes

No

N/A

R-PHRASES

:

:

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R-41 Risk of serious damage to eyes.

S-PHRASES

S22 - Do not breathe dust. S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S-28 After contact with skin, wash immediately with plenty of @1. water.

S-37/39 Wear suitable gloves and eye/face protection.

REFERENCES

Classification, see ref 2)

16. OTHER INFORMATION



INFORMATION SOURCES:

- 1) Hommel, Handbuch der gefährlichen Güter
- 2) European Standard EN 878
- 3) NIVA Study G 003/1-3
- 4) Giulini Chemie GmbH & Co

For paragraph 11 the value concerns Al₂(SO₄)₃.

VENDOR NOTES

Information in this safety data sheet is based on information from the manufacturer and current regulations, and is only intended to be a description of the health and safety aspects of the product.

ISSUED:

2002-11-12