



**MAXXsolute™ –  
The Magnificent Solution for Dust Binding**



*The Authority in Potassium and Magnesium*

## For dust binding and surface stabilization



Dust is the name most used for solid particles with diameters less than 500 micrometers and is a wide spread problem which creates unnecessary risks throughout many areas and processes. Dust can be harmful to health as well as cause damage to machinery and the environment which could be prevented.

Mineral dust is created in high concentrations on unpaved or temporary roads, in underground and open cast mining or quarrying, on active construction projects, during crushing and grinding of materials, power plants, freight loading facilities such as shipping and grain terminals, on tennis courts, horse riding rings, race tracks and sports fields.

**MAXXsolute™** has proven its outstanding performance under many climatic conditions and application fields.

**Very effective ...**

**MgCl<sub>2</sub>**

20 %, 25 %  
30 %, 33 %



### **Micro Dust**

Wherever larger dust particles exist, micro particles do as well. Micro dust is defined as particles below 10 micrometers in size. These particles are so small they generally cannot be seen by the human eye. If breathed, these particles are able to pass through the alveoli reaching the lung and may transfer into the bloodstream where they can cause serious damage and health problems. One of the main creators of micro dust is engine emissions. Therefore, the highest concentration of these micro sized particles can often be found at traffic hotspots such as in city centres or on busy highways. Micro dust is a growing global concern recognized by some Governments and there are already many international projects looking at ways to fight hazardous micro dust.



## ... in many application areas



### Road Dust

On dry unpaved roads driving vehicles cause a huge amount of airborne dust, making driving unsafe. Driving surfaces damaged by potholes make this even worse. The result is an expensive and time intensive road maintenance.

**MAXXsolute™** works immediately as an effective dust suppressor, road stabilizer and compaction agent. It penetrates several inches into the road and causes a long lasting stabilizing effect in the ground. This reduces the frost damage and therefore causes a better overall wear.

**MAXXsolute™** gives a smooth and stabilized driving surface while providing improved visibility. It also prevents wind erosion and reduces maintenance costs.

One application can last anywhere from a few weeks to several months (depending on weather conditions).



20 %, 25 %  
30 %, 33 %



## Mining

In coal mines unwanted fine coal dust is produced and carried away through air shafts only to be deposited on roofs and slopes as a dry layer. In this form, the dust can very easily be stirred up again and, if ignited, cause dangerous explosions.

**MAXXsolute™** adheres to the walls and therefore minimizes airborne dust. It not only makes the air clean and safe but also prevents the risk of explosions by binding the coal particles.

For open cast mining fields dust formation is a tremendous problem. Dust clouds can be carried several miles by wind gusts, annoying local residents. Avoid complaints about dirty rooftops, cars and laundry as well as health concerns by using **MAXXsolute™**.

## Construction sites

Even dust at construction sites is often a problem. Heavy truck traffic on unpaved roads swirls dust into the air and can be carried to surrounding areas by wind. Also during building demolition **MAXXsolute™** effectively prevents the formation of dust particles to help keep the air clean.



## Bring more performance and safety to your game

**MAXXsolute™** can additionally be used as a dust binding agent on tennis courts, indoor riding rings, race tracks, sports fields and unpaved avenues on golf courses.

Especially in indoor arenas with insufficient ventilation, high concentrations of dust can often be found. The floor in halls like riding arenas and tennis courts is often made of loose sand. Sand is made of silica and silicosis is a well known and dangerous lung disease caused by the inhalation of fine airborne silica particles. Due to its hygroscopic and water retaining characteristics **MAXXsolute™** keeps the surface moist, avoiding hazardous dust formation. **MAXXsolute™** also provides an improved, firmer and smoother playing surface... simply have a better game!

**MgCl<sub>2</sub>**

20 %, 25 %  
30 %, 33 %



### **It works naturally**

**MAXXsolute™** contains naturally occurring ingredients which are environmentally safe. **MAXXsolute™** is highly hygroscopic and takes water out of atmospheric humidity. It resists evaporation, resulting in a long lasting wetting effect even on hot summer days. The moisture remains, sticking and binding dust particles which prevents them from getting into the air. Depending on how long you apply it, **MAXXsolute™** can penetrate the ground several inches, causing increased stabilization.





**MAXXsolute™** uses the latest technology on the market, giving you the highest possible performance per application. With its special environmentally friendly formula just one application will last weeks - saving you time, money and water.

**MAXXsolute™** is a very effective and long lasting dust and micro dust binding agent which can be used anywhere where there's a risk of dust. Due to its hygroscopic and water retaining characteristics, it keeps the surface moist, preventing dust formation. **MAXXsolute™** is able to reduce the concentration of hazardous micro dust in the air.

# Product Benefits

**MgCl<sub>2</sub>**

20 %, 25 %  
30 %, 33 %



## MAXXsolute™ is:

- Less frequent applications required
  - ▶ Cost Saving
  - ▶ Time Saving
  - ▶ Labour Saving
- Longer Lasting
- Works in many climates
- Easy to apply
- Concentrations to suit different applications
- Environmentally Friendly
- Hygroscopic – Pulls moisture from the air



## Product Features



**MAXXsolute™** is available in the following concentrations:

20 %, 25 %, 30 %, 33 %

### Handling

**MAXXsolute™** can be used in many industrial applications.

It is safe to handle and ready for use. **MAXXsolute™** is non hazardous, non flammable, harmless to the skin and environmentally safe.

**MgCl<sub>2</sub>**

20 %, 25 %  
30 %, 33 %



## Packaging

In rented or the customers' road or rail tankers or in suitable containers for liquids (customers are to provide tankers or containers freight-prepaid and properly cleaned).

## Dosage

**MAXXsolute™** is typically applied with common spraying or casting equipment.

The common dosage range of this "ready to use" formula is between 50 – 250 g MgCl<sub>2</sub>/m<sup>2</sup> (calculated as anhydrous substance). The optimal dosage depends on the local conditions.



# Technical Information: 20 % MgCl<sub>2</sub>

## Combined Nomenclature Nature of Product

2827 31 00

neutral aqueous salt solution, slightly yellowish in color

## Chemical Analysis

### typical

■ Magnesium Chloride (MgCl <sub>2</sub> )	20 %
■ Magnesium Sulphate (MgSO <sub>4</sub> )	1.1 %
■ Sodium Chloride (NaCl)	0.3 %
■ Potassium Chloride (KCl)	0.1 %
■ Others, mainly H <sub>2</sub> O	78.5 %

## Physical Properties

■ Molecular Weight (MgCl <sub>2</sub> )	95.23 g/mol
■ Density	approx. 1.18 g/cm <sup>3</sup> at 20 °C
■ Melting, Solidification Point	approx. -28 °C
■ Viscosity, dynamic	approx. 3 mPas at 20 °C

## Packaging

In rented or the customers' road or rail tankers or in suitable containers for liquids  
(customers are to provide tankers or containers freight-prepaid and properly cleaned)

**MgCl<sub>2</sub>**20 %  
25 %

# Technical Information: 25 % MgCl<sub>2</sub>

## Combined Nomenclature Nature of Product

2827 31 00

neutral aqueous salt solution, slightly yellowish in color

## Chemical Analysis

### typical

■ Magnesium Chloride (MgCl <sub>2</sub> )	25 %
■ Magnesium Sulphate (MgSO <sub>4</sub> )	1.4 %
■ Sodium Chloride (NaCl)	0.4 %
■ Potassium Chloride (KCl)	0.2 %
■ Others, mainly H <sub>2</sub> O	73 %

## Physical Properties

■ Molecular Weight (MgCl <sub>2</sub> )	95.23 g/mol
■ Density	approx. 1.25 g/cm <sup>3</sup> at 20 °C
■ Melting, Solidification Point	approx. -23 °C
■ Viscosity, dynamic	approx. 5 mPas at 20 °C

## Packaging

In rented or the customers' road or rail tankers or in suitable containers for liquids  
(customers are to provide tankers or containers freight-prepaid and properly cleaned)



# Technical Information: 30 % MgCl<sub>2</sub>

## Combined Nomenclature Nature of Product

2827 31 00

nearly saturated, neutral aqueous salt solution,  
mildly hygroscopic, slightly yellowish in color

## Chemical Analysis

### typical

■ Magnesium Chloride (MgCl <sub>2</sub> )	30 %
■ Magnesium Sulphate (MgSO <sub>4</sub> )	1.7 %
■ Sodium Chloride (NaCl)	0.5 %
■ Potassium Chloride (KCl)	0.2 %
■ Others, mainly H <sub>2</sub> O	67.6 %

## Physical Properties

■ Molecular Weight (MgCl <sub>2</sub> )	95.23 g/mol
■ Density	approx. 1.29 g/cm <sup>3</sup> at 20 °C
■ Melting, Solidification Point	approx. -18 °C
■ Viscosity, dynamic	approx. 9 mPas at 20 °C

## Special Characteristics

Within the temperature range from the conditions at loadpoint to the solidification point some salt recrystallisation is inevitable. As these crystals readily dissolve once the product is heated and/or diluted, the handling properties are only marginally affected.

## Packaging

In rented or the customers' road or rail tankers or in suitable containers for liquids  
(customers are to provide tankers or containers freight-prepaid and properly cleaned)



30 %

33 %

# Technical Information: 33 % MgCl<sub>2</sub>

## Combined Nomenclature Nature of Product

2827 31 00

practically saturated, neutral aqueous salt solution,  
mildly hygroscopic, slightly yellowish in color

## Chemical Analysis

### typical

■ Magnesium Chloride (MgCl <sub>2</sub> )	32.8 %
■ Magnesium Sulphate (MgSO <sub>4</sub> )	1.8 %
■ Sodium Chloride (NaCl)	0.8 %
■ Potassium Chloride (KCl)	0.2 %
■ Others, mainly H <sub>2</sub> O	64.4 %

## Physical Properties

■ Molecular Weight (MgCl <sub>2</sub> )	95.23 g/mol
■ Density	approx. 1.33 g/cm <sup>3</sup> at 20 °C
■ Melting, Solidification Point	approx. -16 °C
■ Viscosity, dynamic	approx. 14 mPas at 20 °C

## Special Characteristics

Within the temperature range from the conditions at loadpoint to the solidification point some salt recrystallisation is inevitable. As these crystals readily dissolve once the product is heated and/or diluted, the handling properties are only marginally affected.

## Packaging

In rented or the customers' road or rail tankers or in suitable containers for liquids  
(customers are to provide tankers or containers freight-prepaid and properly cleaned)



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