



EMGESAL® FLUX



 **Rheinkalk HDW**
A Lhoist Group Company

Some References:

Magnesium Recycling Plant (Germany)

**Die Casting and In-house
Recycling Plant (Austria)**

**Magnesium Recycling and
Alloying Processes (Hungaria)**

In-house Recycling Plant (China)

Light Metal Foundry (Sweden)

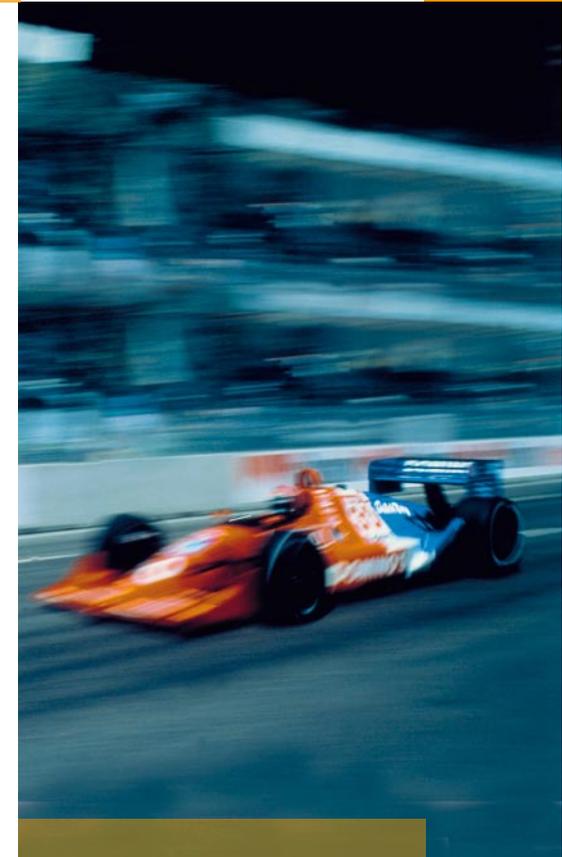


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Our Partner:



EMGESAL® FLUX

**Melting and Refining Agent
for Light Metals**

 **Rheinkalk HDW**
A Lhoist Group Company



Safe and Environmentally for Your Process



The Right Quality for You

EMGESAL® FLUX is Your First Choice for:

Refining of Magnesium

Any re-melting of magnesium leads to non-metallic inclusions. Only ingots and class 1 scrap can be re-melted without the use of flux. For clean metals without inclusions, all other scrap requires flux in the re-melting process. EMGESAL® FLUX collects all non-metallic inclusions from your magnesium melt and separates them from the clean metal.

Protection of molten Magnesium

Today, the use of covering and protecting gas is "state of the art" for any magnesium foundry. The use of EMGESAL® FLUX can provide additional benefits as covering flux and is recommended:

- for furnaces without continuous gas protection
- as a reserve in case of disturbances in the gas supply
- as an alternative vs. environmental unfriendly gases like SF₆ or SO₂

Extinguishing of Magnesium fire

The most efficient fire extinguisher is EMGESAL® FLUX, which will form a molten layer on the liquid magnesium, excluding oxygen.

Sufficient amounts of dry salt flux should always be on hand in the foundry; well marked flux bins should be located at the work stations where liquid magnesium is present, as well as in machining.

- **Anhydrous**
- **Homogeneous**
- **Dust Free**

Anhydrous EMGESAL® FLUX can be used without any hazardous environmental emissions during the magnesium melt.

Homogeneous EMGESAL® FLUX is forming a liquid flux layer immediately on the molten magnesium for protection against oxidation. Burning magnesium is avoided. Metal losses are minimised.

Flake formed and **dust free**, EMGESAL® FLUX prevents dust emissions and ensures a fast protection and safe advanced performance on the molten magnesium.



EMGESAL® FLUX is a synthetic Carnallite, which complies with the ternary eutectic in MgCl₂-KCl-NaCl-System.

EMGESAL® FLUX 0

covering salt for magnesium melting process, CaF₂-free; density: 2,17 g/cm³
Solidifying temperature: 371°C

EMGESAL® FLUX 2

covering salt for magnesium melting process, about 2 % CaF₂; density: 2,19 g/cm³
Solidifying temperature: 379°C

EMGESAL® FLUX 5

covering and refining salt for magnesium melting and alloying process; 5 % CaF₂; density: 2,22 g/cm³
Solidifying temperature: 384°C

EMGESAL® FLUX 12

refining salt for the flux refining process about 12 % CaF₂; density: 2,28 g/cm³
Solidifying temperature: 424°C

EMGESAL® FLUX 18

refining salt for the flux refining process about 18 % CaF₂; density: 2,34 g/cm³
Solidifying temperature: 444°C

The material is packed in 25 kg bags with tight sealing inlet and inner PE sack. It is packed per 1000 kg batch on EURO-pallets and covered with a shrinking PE foil against humidity.

EMGESAL® is a registered trademark of Rheinkalk HDW