ALMAMET
INTERNATIONAL GROUP

SPECTRUM OF MAGNESIUM SOLUTIONS FOR METALLURGY

URSAFE®

An innovative coating for Magnesium granules developed by ALMAMET to achieve a non-hazardous classification

A GLOBAL APPROACH WITH LOCAL SOLUTIONS

URSAFE®

Metals like Magnesium are pyrophoric, they can be spontaneously combustible and are highly flammable. Due to these specific properties, special requirements for the transportation and the storage of Magnesium are required.

ALMAMET has developed Magnesium-based powders and granules that ensure a safe handling, transport and storage. As a consequence, all these can be transported as non-ADR (non-dangerous goods) by truck.

The developed Magnesium-based reagents with our brand new URSAFE® coating provide the same high-quality aspects ALMAMET is well known for.

Our developed additives show excellent results as passivation against spontaneous combustion and flammability. In the process, the additives decompose in endothermic reactions at a temperature of 200°C.

There have also been melamine-containing agents so far, although melamine has now proven to be a carcinogenic substance. In consequence, many countries have introduced guidelines on the use of melamine and its use as a flame retardant must also be questioned – our URSAFE® coating is completely melamine-free.

Image studies by independent laboratories show a **uniform distribution and coating** on our MG 95 L granule with the **URSAFE®** coating.

Independent laboratory tests according to the **UN Manual of Tests and Criteria (UN-MTC)** by the German BAM Institute, which is a senior scientific and technical Federal Institute with responsibility to the Federal Ministry for Economic Affairs and Climate Action, also confirm:

- Our Magnesium blends MG 97, MG 95 L and MG 90 L **do not fulfil the criteria for classification in Division 4.1 "Flammable Solids"** of UN-TDG and do not fulfil the criteria of the Hazard Class "Flammable Solids" of UN-GHS/CLP.

Start of the flame treatment

Shortly before the end of the flame treatment (shortly before 5 min.)

Shortly after the end of the flame treatment (shortly after 5 min.)

Second distance mark is not reached after 20 min. (end of preliminary screening test)

- Our Magnesium blends MG 97, MG 95 L and MG 90 L **do not fulfil the criteria for classification in Division 4.3 "Substances or mixtures which, in contact with water, emit flammable gases"** of the UN-TDG and do not fulfil the criteria of Hazard Class "Substances or mixtures which, in contact with water, emit flammable gases" of UN-GHS/CLP.

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