

PRODUCT SPECIFICATIONS

Hydrated Magnesium Carbonate (HMC)



Product: Hydrated Magnesium Carbonate
Formula: $4\text{MgCO}_3\cdot\text{Mg}(\text{OH})_2\cdot 4\text{H}_2\text{O}$
Cas No.: 39409-82-0

DESCRIPTION

EcoMag recovers and processes high purity HMC ($4\text{MgCO}_3\cdot\text{Mg}(\text{OH})_2\cdot 4\text{H}_2\text{O}$) from waste bittern streams of solar salt operations.

USES

Food, pharmaceuticals, refractory/fine ceramics, construction, magnesium salts.

PHYSICAL AND CHEMICAL PROPERTIES

The following specifications supersede all previous specifications for this product code.

Description	Specification	Typical	Unit
Purity	≥ 99.0	99.2–99.6	%
MgO	≥ 42.6	42.7–42.9	%
Free moisture	≤ 1.0	0.6–0.8	%
Calcium (Ca)	≤ 0.06	0.004–0.05	%
Chloride (Cl)	≤ 0.5	0.2–0.4	%
Potassium (K)	≤ 0.1	0.01–0.08	%
Sodium (Na)	≤ 0.3	0.1–0.2	%
Sulphate (SO_4)	≤ 0.1	0.005–0.08	%
Aluminium (Al)	≤ 25	10–20	ppm
Arsenic (As)	≤ 1	ND*	ppm
Barium (Ba)	≤ 1	ND	ppm
Boron (B)	≤ 5	1–5	ppm
Cadmium (Cd)	≤ 1	ND	ppm
Cobalt (Co)	≤ 1	ND	ppm
Chromium (Cr)	≤ 5	1–5	ppm
Copper (Cu)	≤ 5	1–5	ppm
Iron (Fe)	≤ 5	1–5	ppm
Lithium (Li)	≤ 1	ND	ppm
Manganese (Mn)	≤ 5	1–5	ppm
Nickel (Ni)	≤ 5	1–5	ppm
Selenium (Se)	≤ 1	ND	ppm
Silicon (Si)	≤ 1	ND	ppm
Titanium (Ti)	≤ 1	ND	ppm
Zinc (Zn)	≤ 5	1–5	ppm
Other heavy metals	≤ 5	1–5	ppm
Packing density		0.2–0.4	g/cm^3
Surface area		20.94	m^2/g
Mean particle size		21.3	μm

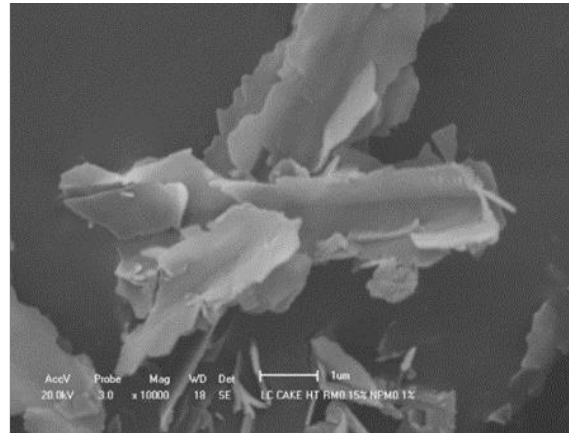
*not detected

TYPICAL PRODUCT CHARACTERISTICS

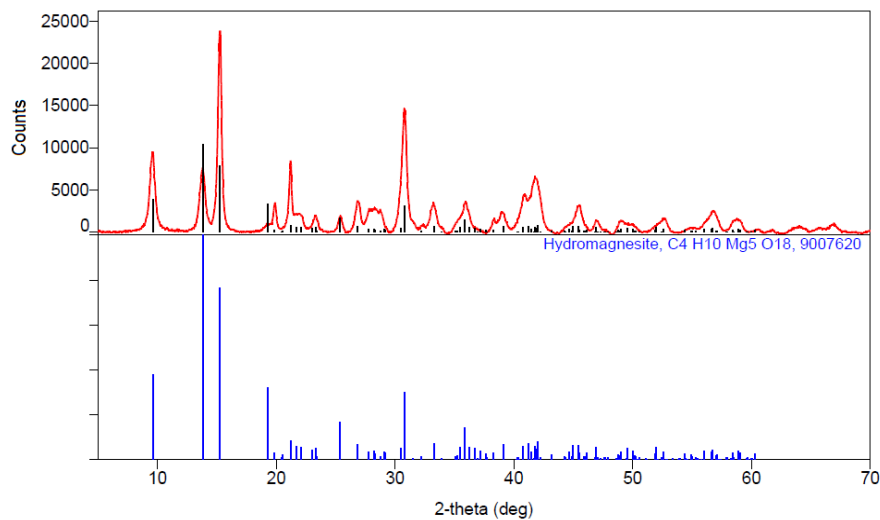
Hydrated Magnesium Carbonate after hand grinding



SEM Image of EcoMag's Hydrated Magnesium Carbonate



XRD Characteristic of EcoMag's Hydrated Magnesium Carbonate



PACKAGING

1 kg bag, 20 kg bag, 50 kg bag, 100 kg drum, 1 tonne bulk bag. Please contact EcoMag for more information.

DISCLAIMER

As the use of the products described in this document is outside the control of EcoMag Limited, we make no representation or warranty concerning the suitability or fitness of those products for any purpose. It is your sole responsibility to ensure that the products will have the qualities and attributes that will make them fit for any ordinary or special purpose required of them, even if that purpose is made known to us at any time. This includes responsibility on your part to conduct in a timely manner all appropriate tests and quality checks on the products and any goods made from them. We disclaim any liability if any products are not suitable or fit for any such purpose.

SPECIFICATION / REVISION

Last revised: 06 September 2018

Revision: 1

Authorised by: Tam Tran, CTO