

TECHNICAL INFORMATION SHEET:

CALCIUM CHLORIDE FLAKE - LIQUOR TREATMENT

PRODUCT NAME:

Magnesium Sulphate
(Heptahydrate)

PRODUCT CODE:

MAGSUL

COMMODITY CODE:

28332100

PACKAGING:

25 KG

Description

Magnesium Sulphate (Heptahydrate) is a salt used to increase the mineral content of brewing liquor to improve its brewing quality and produce the desired beer characteristics.

Benefits

- Increases Sulphate content of brewing liquor without increasing Calcium content.
- Imparts dry bitter character to beer.
- Magnesium ions help reduce wort pH (to a lesser extent to Calcium ions).

	Bitter	Strong Bitter	Lager (65°C)	Porter	Mild	Wheat	Stout
Calcium	180-220	220-220	120-140	130-160	120-140	180	120-140
Alkalinity	30-50	30-50	30-50	100	100	35	150
Chloride	150-300	200-300	Low	200-300	300	250	300
Sulphate	250-400	300-400	Low	200-300	150	220	100



TECHNICAL SUPPORT

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REGULATORY COMPLIANCE INFORMATION

Refer to the **Product Specification Sheet** or contact us on
tel: +44 (0) 115 978 5494 | e: compliance@murphyandson.co.uk

HEALTH & SAFETY INFORMATION

Principle

The objective of liquor treatment is to convert your water supply into acceptable brewing liquor.

Treating your brewing liquor is vitally important. When applied correctly all the steps throughout the brewing process will be at the optimum pH. If it is applied incorrectly, you will get poor extract and beer that is difficult to clarify.

Magnesium Sulphate contains sulphate ions to adjust the levels in the correct ratio, ideal for most beer styles without adding extra calcium ions

Application and rates of use

Magnesium Sulphate is normally added to the grist prior to mashing.

Magnesium Sulphate should NOT be added to the hot liquor tank (HLT), as some constituents are insoluble. They will remain in the hot liquor tank as opposed to being released into the grist, thus requiring the HLT to be cleaned on a regular basis.

Rates of Magnesium Sulphate should be determined based on the final brew-length and are dependant on the levels of calcium, magnesium, sulphate and chloride present in your untreated liquor. Magnesium levels must not exceed 50ppm.

Levels of the relevant ions present in your liquor can be obtained from your Local Water Authority or you can send in 50ml of your raw liquor to Murphy's laboratory for a full analysis and suggested treatment rates. Please note Local Authority reports can provide results that are not up to date and this may affect your calculations for ideal dosage rates. It is advisable to check the analysis of your water at least once a year, or on a more regular basis if the supply changes.

Once you have obtained your analysis of your raw liquor you can then calculate your dosage rates by selecting which beer type you wish to brew and refer to table 1, this will help you determine how many ions to add.

9g of Magnesium Sulphate per hl of your brew-length increases Magnesium levels by 9 mg/litre (ppm) and increases sulphate levels by 35 mg/litre (ppm).

Knowing this information you can calculate the amount of Magnesium Sulphate needed to increase the relevant ions to the ideal level.

Murphy and Son Ltd are more than happy to calculate these dosage rates for you.

Guidelines for use

- Check that the product is within its shelf life before use
- Test you water regularly to obtain ideal dosage rates for the best results
- Read the Safety Data Sheet prior to use

Storage and Shelf life

- Store in original container
- Keep containers sealed when not in use
- The shelf life at the recommended storage conditions is two years.

PRODUCT	MAGNESIUM SULPHATE	PRODUCT CODE	MAGSUL
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