

TECHNICAL DATA SHEET

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HSPMKT

MILJAC, INC.Magnesium Sulphate Anhydrous
(Calcined Kieserite)

INSTANT WARM PACK

PRODUCT

Formula:	MgSO ₄
Nature:	Nearly white salt, hygroscopic
Average analysis:	98.4 % MgSO ₄ = 33.0 % MgO or 19.9 % Mg 0.5 % K ₂ SO ₄ 0.6 % CaSO ₄ 0.5 % others, mainly H ₂ O 100.0 %
Grain sizes:	1/0.125 mm min. 95 % below 0.125 mm max. 5 %
Tap density:	1.4 - 1.5 kg/litre
Angle of repose:	28°
Specific gravity:	2.7 g/cm ³
Molecular weight:	120.37 g/mol
Solubility:	Readily soluble in water provided that clotting is avoided. Therefore, the salt should always be mixed into water and not vice versa.

Uses:

In general, same uses as for Kieserite 27 % MgO and Epsom Salt, e. g. as a highly concentrated magnesium fertilizer (straight application, magnesium source in compounds, liquid fertilizer), in the chemical, ceramic, textile and building material industries, for the manufacture of other magnesium compounds or pure magnesium sulphate solutions, in the pulp industry as a source for Mg(HSO₃)₂ for the magnesite and similar processes, as well as a stabilizer for cellulose in O₂-bleaching processes, as an additive in feed (mineral feed). Magnesium Sulphate Anhydrous is preferred over Kieserite and Epsom Salt when a higher concentration is required. Furthermore, Magnesium Sulphate Anhydrous is used when a better water solubility than that of Kieserite is needed and the degree of purity may be somewhat inferior to that of Epsom Salt. These requirements may apply e. g. to sewage disposal, dye works, the metallurgical, rayon, textile, cellulose, building and refractories industries, as well as to the manufacture of detergents, particularly detergents for washing machines.

Among others the material is used for the production of bath salts, Blanco-fixe, fire-extinguishing substances, sintered phosphates, concentrated animal feed, light-weight panels, glue and magnesium trisilicate as purifying agent in the glass

I-449963 C-6001-048

I-448875 C-6001-047
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I-425668 C-6001-043

I-356518 C-6001-047

I-348691 C-6001-041 DMF

I-196289 C-6632

I-132023 C-6350

I-046874 C-6630 DMF

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	Unknown
EFFECTS OF OVEREXPOSURE	Unknown No Reported History
Ingestion Will Result in Severe Gastro Intestinal Disruption	
EMERGENCY AND FIRST AID PROCEDURES	

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE	Decomp. @ 1100°C
INCOMPATIBILITY (Materials it reacts with)		
Strong Bases & Acids in the Pres of Carbon		
HAZARDOUS DECOMPOSITION PRODUCTS		
Yields SO ₂ and SO ₃		
HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR	MGSO ₄ is a Stable Salt

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Sweep Up & Flush in Sanitary Sewer or Use As Fertilizer For
Shrubs
WASTE DISPOSAL METHOD
Landfill or Garbage Disposal

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		
Dust Mask IF Dusty Application		
VENTILATION	LOCAL EXHAUST	SPECIAL
	Local Exhaust	NONE
	MECHANICAL (General)	OTHER
		NONE
PROTECTIVE GLOVES	EYE PROTECTION	
Will Dry Hands	Goggles For Dusty Atmosphere	
OTHER PROTECTIVE EQUIPMENT		
None Required		

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid Moisture & Dampness.
Keep Dry
OTHER PRECAUTIONS
NONE

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form OSHA-20
OMB No. 45-1338

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

CHEMICAL NAME AND SYNONYMS

Magnesium Sulfate Anhydrous

TRADE NAME AND SYNONYMS

Anhyd. Epsom Salts

CHEMICAL FAMILY

Inorganic Magnesium Salt

FORMULA

MgSO₄ (Anhyd)

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS		NA	BASE METAL		NA
CATALYST		NA	ALLOYS		NA
VEHICLE		NA	METALLIC COATINGS		NA
SOLVENTS		NA	FILLER METAL PLUS COATING OR CORE FLUX		NA
ADDITIVES		NA	OTHERS		NA
OTHERS		NA			NA
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
NA					

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	NA	SPECIFIC GRAVITY (H ₂ O = 1)	2.9g / CM ³
VAPOR PRESSURE (mm Hg.)	NA	PERCENT VOLATILE BY VOLUME (%)	NA
VAPOR DENSITY (AIR = 1)	NA	EVAPORATION RATE (____ #)	NA
SOLUBILITY IN WATER	13g./100ml @ 25°C		
APPEARANCE AND ODOR	White Powder or Prill		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (MILLER TEST)	NONE	FLAMMABLE LIMITS	LEL	UEL
EXTINGUISHING MEDIA	NA			
SPECIAL FIRE FIGHTING PROCEDURES	NA			
UNUSUAL FIRE AND EXPLOSION HAZARDS	NONE			