

Version: 1.2 Revision Date: 12-10-2018

SAFETY DATA SHEET

According to US Regulation 29 CFR 1910.1200 (HazCom 2012)

1. Identification

Product identifier: Magnesium Sulfate, Anhydrous

 Other means of identification

 Product No.:
 2506, 6070, 6050, 5053, 5054, BS15

Recommended restrictions

Recommended use: For Laboratory, Research or Manufacturing Use. **Restrictions on use:** Not determined.

Details of the supplier of the safety data sheet

Company Name: Address:	Avantor Performance Materials, LLC 100 Matsonford Rd, Suite 200 Radnor, PA 19087
Telephone:	Customer Service: 855-282-6867
Contact Person: E-mail:	Product Information Compliance info@avantormaterials.com

Emergency telephone number:

CHEMTREC: 1-800-424-9300 within US and Canada

2. Hazard(s) identification

Hazard Classification

Not classified

Label Elements

Hazard Symbol:	No symbol
Signal Word:	No signal word.
Hazard Statement:	Not applicable
Precautionary Statements	Not applicable
s) not otherwise	None.

Hazard(s) not otherwise classified (HNOC):

3. Composition/information on ingredients

Substances



Version: 1.2 Revision Date: 12-10-2018

Composition Comments:	The components are not hazardous or are below required disclosure limits	3.
4. First-aid measures		
General information:	Get medical advice/attention if you feel unwell. Show this safety data shee to the doctor in attendance.	ət
Ingestion:	Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.	
Inhalation:	Move to fresh air. Get medical attention if symptoms persist.	
Skin Contact:	Wash skin thoroughly with soap and water. Get medical attention if irritatio persists after washing. Wash contaminated clothing before reuse.	ึงท
Eye contact:	Flush thoroughly with water. If irritation occurs, get medical assistance.	
Most important symptoms/effect	ts, acute and delayed	
Symptoms:	May cause irritation to skin, eyes, and respiratory tract.	
Hazards:	None known.	
Indication of immediate medical	attention and special treatment needed	
Treatment:	Treat symptomatically. Symptoms may be delayed.	
5. Fire-fighting measures		
General Fire Hazards:	The product is non-combustible.	
Suitable (and unsuitable) exting	uishing media	
Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.	
Unsuitable extinguishing media:	None known.	
Specific hazards arising from the chemical:	During fire, gases hazardous to health may be formed.	
Special protective equipment ar	nd precautions for firefighters	
Special fire fighting procedures:	Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.	
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.	
6. Accidental release measure	S	
Personal precautions, protective equipment and emergency procedures:	Keep unauthorized personnel away. Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment.	
Methods and material for containment and cleaning up: SDS_US - SDS000001221	Sweep up and place in a clearly labeled container for chemical waste. Avoid dust formation. Clean surface thoroughly to remove residual contamination.	2/9
	2	-1 3

	Version: 1.2 Revision Date: 12-10-2018
Notification Procedures:	Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling:	Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Avoid inhalation of dust. Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities:	Keep containers tightly closed. Store in cool, dry place. Store in a well- ventilated place.
8. Exposure controls/personal	protection
Control Parameters Occupational Exposure Limit	 S
	None of the components have assigned exposure limits.
Appropriate Engineering Controls	No data available.
Individual protection measures, s	such as personal protective equipment
General information:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Eye/face protection:	Use tight fitting goggles if dust is generated.
Skin Protection Hand Protection:	Wear protective gloves.
Other:	Wear suitable protective clothing.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator.
Hygiene measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

9. Physical and chemical properties

AppearancePhysical state:SolidForm:Crystals or powder.Color:WhiteOdor:OdorlessOdor threshold:No data available.pH:No data available.Melting point/freezing point:1,124 - 1,127 °C

SDS_US - SDS00001221

Initial boiling point and boiling range	: No data available.
Flash Point:	No data available.
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or	explosive limits
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Density:	2.65 g/ml (20 °C)
Relative density:	2.65 (20 °C)
Solubility(ies)	
Solubility in water:	200 g/l (0 °C) 360 g/l (20 °C) 738 g/l (100 °C)
Solubility (other):	ether: 11.6 g/l (18 °C) acetone: Insoluble Alcohol: Soluble glycerin: Soluble
Partition coefficient (n-octanol/water	: No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
Other information	
Molecular weight:	120.37 g/mol (H2O4S)
10. Stability and reactivity	
Reactivity: No	a dangerous reaction known under conditions of normal use.
Chemical Stability: Ma	aterial is stable under normal conditions.

Possibility of hazardous	Hazardous polymerization does not occur.
reactions:	

Conditions to avoid:	Contact with incompatible materials.
Incompatible Materials:	Strong oxidizing agents. Lead. Phosphates. Tartrates.
Hazardous Decomposition Products:	Oxides of sulfur. Oxides of magnesium.

11. Toxicological information

Information on likely routes of e Inhalation:	xposure May cause irritation to the respiratory system.
Skin Contact:	May cause irritation.
Eye contact:	May cause temporary eye irritation.
Ingestion:	May cause irritation of the gastrointestinal tract.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)		
Oral Product:	LD 50 (Rat): > 2,000 mg/kg	
Dermal Product:	LD 50 (Rat) > 2,000 mg/kg	
Inhalation Product:	No data available.	
Repeated dose toxicity Product:	No data available.	
Skin Corrosion/Irritation Product:	May cause skin irritation.	
Serious Eye Damage/Eye Irritation Product:	on May irritate eyes.	
Respiratory or Skin Sensitization Product:	n Not a skin sensitizer.	
Carcinogenicity Product:	This substance has no evidence of carcinogenic properties.	
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: No carcinogenic components identified		
US. National Toxicology Program No carcinogenic components	n (NTP) Report on Carcinogens: s identified	
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): No carcinogenic components identified		
Germ Cell Mutagenicity		
In vitro Product:	No mutagenic components identified	
In vivo Product:	No mutagenic components identified	
Reproductive toxicity Product:	No components toxic to reproduction	
Specific Target Organ Toxicity - Product:	Single Exposure No data available.	
Specific Target Organ Toxicity - Product:	Repeated Exposure No data available.	
Assistion Honord		

Not classified

Aspiration Hazard Product:



Other effects:

None known.

12. Ecological information	
Ecotoxicity:	
Acute hazards to the aquatic	environment:
Fish Product:	No data available.
Aquatic Invertebrates Product:	No data available.
Chronic hazards to the aquati	c environment:
Fish Product:	No data available.
Aquatic Invertebrates Product:	No data available.
Toxicity to Aquatic Plants Product:	No data available.
Persistence and Degradability	
Biodegradation Product:	There are no data on the degradability of this product.
BOD/COD Ratio Product:	No data available.
Bioaccumulative potential Bioconcentration Factor (Be Product:	CF) No data available on bioaccumulation.
Partition Coefficient n-octanol / v Product:	water (log Kow) No data available.
Mobility in soil:	The product is water soluble and may spread in water systems.
Other adverse effects:	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
13. Disposal considerations	
Disposal instructions:	Discharge, treatment, or disposal may be subject to national, state, or local laws.
Contaminated Packaging:	Since emptied containers retain product residue, follow label warnings even after container is emptied.



14. Transport information

DOT

Not regulated.

IMDG

Not regulated.

ΙΑΤΑ

Not regulated.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Not classified

SARA 302 Extremely Hazardous Substance None present or none present in regulated quantities.

SARA 304 Emergency Release Notification None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

None present or none present in regulated quantities.

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.



US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

Inventory Status:

Australia AICS: Canada DSL Inventory List: EINECS, ELINCS or NLP: Japan (ENCS) List: Korea Existing Chemicals Inv. (KECI): Philippines PICCS: US TSCA Inventory: New Zealand Inventory of Chemicals: China Inv. Existing Chemical Substances: Mexico INSQ: Taiwan Chemical Substance Inventory: On or in compliance with the inventory On or in compliance with the inventory

16.Other information, including date of preparation or last revision

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date:	12-10-2018
Revision Information:	Not relevant.
Version #:	1.2

✓ avantor [™]	Version: 1.2 Revision Date: 12-10-2018
Source of information:	Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, information from the Toxicology Data Network (TOXNET), European Chemical Agency (ECHA) substance dossiers, IARC Monographs, US National Toxicology Program data, the Agency for Toxic Substances and Disease Registry, other manufacturer's SDSs and other sources, as appropriate.
Further Information:	No data available.
Disclaimer:	The information provided in this Safety Data Sheet (SDS) was prepared based on data believed to be accurate as of the date of this SDS. TO THE GREATEST EXTENT PERMITTED BY LAW, AVANTOR PERFORMANCE MATERIALS ("AVANTOR") EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES REGARDING THE INFORMATION CONTAINED HEREIN INCLUDING, WITHOUT LIMITATION, AS TO ACCURACY, COMPLETENESS, FITNESS FOR PURPOSE OR USE, MERCHANTABILITY, NON-INFRINGEMENT, PERFORMANCE, SAFETY, SUITABILITY AND STABILITY. This SDS is intended as a guide to the appropriate use, handling, storage and disposal of the product to which it relates by properly trained personnel, and is not intended to be comprehensive. Users of Avantor's products are advised to perform their own tests and to exercise their own judgment to determine the safety, suitability and appropriate use, handling, storage and disposal of each product and product combination for their own purposes and uses. TO THE GREATEST EXTENT PERMITTED BY LAW, AVANTOR DISCLAIMS LIABILITY FOR, AND BY USING AVANTOR'S PRODUCTS PURCHASER AGREES THAT UNDER NO CIRCUMSTANCES SHALL AVANTOR BE LIABLE FOR, SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY TYPE OR KIND, INCLUDING WITHOUT LIMITATION, FOR LOSS OF PROFITS, REPUTATIONAL DAMAGE, PRODUCT RECALL OR BUSINESS INTERRUPTION.