

SECTION 1: IDENTIFICATION**1.1. Product Identifier****Product Form:** Substance**Product Name:** MAGNESIUM STEARATE**CAS-No.:** 557-04-0**Product Code:** NA GHS 2015 SDS-EN, 1277, 1726, 1729, 2254, 2255, 2256, 2257, 2279, 3508, 4024, 5705, 5712, 5716, 5774, 5777, 6504, 7205, 7807**Synonyms:** Fatty Acid, Hydrogenated, magnesium salt**1.2 Recommended Use and Restrictions on Use****Use Of The Substance/Mixture** : Laboratory reagent or process chemical.**Restrictions On Use** : No additional information available**1.3. Name, Address, and Telephone of the Responsible Party****Company**

SpecGx LLC

385 Marshall Ave

Webster Groves, MO 63119

SpecGx-SDS@mnk.com

Customer Service: 1-800-895-9048 (USA, Canada)

1-314-654-2000 (Worldwide)

1.4. Emergency Telephone Number**Emergency Number** : CHEMTREC

Within USA and Canada: 1-800-424-9300

International: +1-703-527-3887 (Collect calls accepted)

Within USA and Canada: 1-800-424-9300 or +1-703-527-3887 (collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION**2.1. Classification of the Substance or Mixture****GHS-US/CA Classification**

Combustible Dust

2.2. Label Elements**GHS-US/CA Labeling****Signal Word (GHS-US/CA)** : Warning**Hazard Statements (GHS-US/CA)** : May form combustible dust concentrations in air.**Supplemental Information** : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Proper grounding procedures to avoid static electricity should be followed. Prevent dust accumulation (to minimize explosion hazard). Avoid generating dust.**2.3 Hazards associated with known or reasonably anticipated uses**

This product is a pharmaceutical ingredient intended for specific uses; inclusion into a prepared medication or for research and/or laboratory use by qualified personnel. No other uses are anticipated. If this product is used in unforeseeable chemical processes and not used as intended or reasonable, the hazards listed in Section 2.3 cannot cover all chemistries. Therefore, a Process Hazard Analysis (PHA) or other hazard assessment for additional specific end uses should be performed to ensure that hazards are fully understood, and adequate safety measures are in place. See Section 10 for relevant reactivity and stability information.

2.4. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substance**

Name : MAGNESIUM STEARATE

CAS-No. : 557-04-0

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Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Magnesium stearate	Octadecanoic acid, magnesium salt / Stearate, magnesium / Stearic acid, magnesium salt / Octadecanoic acid, magnesium salt (2:1) / Magnesium distearate / MAGNESIUM STEARATE / Salts of stearic acids with magnesium bases / Magnesium octadecanoate / Bis(octadecanoic acid)magnesium salt / Salt of stearic acid with magnesium base / Dioctadecanoate magnesium / magnesium stearate / Magnesium salts of stearic acid	(CAS-No.) 557-04-0	100	Combustible Dust

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%). Full text of H-statements: see section 16.

3.2. Mixture

Not applicable

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Wash with plenty of soap and water. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Not expected to present a significant hazard under anticipated conditions of normal use.

Inhalation: Dust may be harmful or cause irritation. Prolonged exposure may cause irritation.

Skin Contact: Prolonged exposure may cause skin irritation.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None known.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical. Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures. May form combustible dust concentrations in air.

Explosion Hazard: May form explosive dust-air mixture if dispersed.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Magnesium oxides.

Other Information: No additional information available.

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing dust. Avoid generating dust. Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

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6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

Measure in Case of Dust Release: Dust suppressant (water mist or fog).

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Vacuum clean-up is preferred. If sweeping is required use water mist as a dust suppressant. Use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. Use only non-sparking tools. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

Other information: No additional information available.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations. Do not dry clean dust covered objects and floors. Use water plus a cleaning agent for cleanup.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing dust. Avoid creating or spreading dust. Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

Handling Temperature: No temperature range is provided

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, and lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Storage Area: Store in dry, cool area.

7.3. Specific End Use(s)

Laboratory reagent or process chemical.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

Magnesium stearate (557-04-0)		
USA ACGIH	ACGIH OEL TWA	10 mg/m ³ (inhalable particulate matter (Stearates)) 3 mg/m ³ (respirable particulate matter (Stearates))
British Columbia	OEL TWA	10 mg/m ³ (does not include Stearates of toxic metals-inhalable (Stearates)) 3 mg/m ³ (does not include Stearates of toxic metals-respirable (Stearates))
Manitoba	OEL TWA	10 mg/m ³ (inhalable particulate matter (Stearates)) 3 mg/m ³ (respirable particulate matter (Stearates))

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Newfoundland & Labrador	OEL TWA	10 mg/m ³ (inhalable particulate matter (Stearates)) 3 mg/m ³ (respirable particulate matter (Stearates))
Nova Scotia	OEL TWA	10 mg/m ³ (inhalable particulate matter (Stearates)) 3 mg/m ³ (respirable particulate matter (Stearates))
Ontario	OEL TWAEV	10 mg/m ³ (except stearates of toxic metals-inhalable particulate matter) 3 mg/m ³ (except stearates of toxic metals-respirable particulate matter)
Prince Edward Island	OEL TWA	10 mg/m ³ (inhalable particulate matter (Stearates)) 3 mg/m ³ (respirable particulate matter (Stearates))
Québec	VEMP (OEL TWAEV)	10 mg/m ³ (except Stearates of toxic metals-inhalable aerosol fraction (Stearates)) 3 mg/m ³ (except Stearates of toxic metals-respirable aerosol fraction (Stearates))

8.2. Exposure Controls

Appropriate Engineering Controls: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles or glasses. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles or safety glasses with side shields.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Thermal Hazard Protection: If material is hot, wear thermally resistant protective gloves.

Environmental Exposure Controls: Avoid unnecessary release into the environment.

Consumer Exposure Controls: Not applicable

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Color	: White or Yellow powder.
Odor	: Slight
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: 120 – 130 °C (248 – 266 °F)
Freezing Point	: 120 – 130 °C (248 – 266 °F)
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Vapor Pressure	: < 0.0001 Pa (25 °C)

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Relative Vapor Density at 20°C	: No data available
Relative Density	: 1.028
Specific Gravity	: 1.03
Solubility	: Material nearly insoluble in water. Water: Insoluble Ethanol: Insoluble Ether: Insoluble
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity, Kinematic	: No data available
Particle characteristics	: No data available
Explosive Properties	: May form combustible dust concentrations in air.
Dust deflagration index	: 259 bar·m/s

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions, Including those Associated with Foreseeable Emergencies:

Hazardous polymerization will not occur. May form combustible dust concentrations in air.

10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition. Dust accumulation (to minimize explosion hazard).

10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Carbon oxides (CO, CO₂). Oxides of magnesium.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Likely routes of exposure: Dermal, Eye Contact, Inhalation, Oral.

Acute Toxicity (Oral): Not classified.

Acute Toxicity (Dermal): Not classified.

Acute Toxicity (Inhalation): Not classified.

LD50 and LC50 Data:

No additional information available

Skin Corrosion/Irritation: Not classified.

Eye Damage/Irritation: Not classified.

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Carcinogenicity: Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: Not classified.

Symptoms/Injuries After Inhalation: Dust may be harmful or cause irritation. Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None known.

Other information: No additional information available.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Magnesium stearate (557-04-0)	
LD50 Oral Rat	> 2000 mg/kg

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

No additional information available

12.2. Persistence and Degradability

MAGNESIUM STEARATE (557-04-0)	
Persistence and Degradability	Expected to be biodegradable.

12.3. Bioaccumulative Potential

MAGNESIUM STEARATE (557-04-0)	
Bioaccumulative Potential	Not expected to bioaccumulate.

12.4. Mobility in Soil

MAGNESIUM STEARATE (557-04-0)	
Ecology - Soil	Adsorption to solid soil phase is not expected.

12.5. Other Adverse Effects

Other Adverse Effects: None known.

Other Information: Avoid unnecessary release into the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Regional Legislation (Waste): Disposal must be done according to official regulations.

Waste Treatment Methods: Can be landfilled, when in compliance with local regulations. Incineration is also an acceptable method for disposal.

Sewage Disposal Recommendations: Do not dispose of waste into sewer. Do not empty into drains.

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations

Additional Information: Empty containers may be recycled after cleaning.

Ecology - Waste Materials: Avoid unnecessary release into the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Not regulated for transport

14.2. In Accordance with IMDG

Not regulated for transport

14.3. In Accordance with IATA

Not regulated for transport

14.4. In Accordance with TDG

Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

MAGNESIUM STEARATE (557-04-0)	
SARA Section 311/312 Hazard Classes	Physical hazard - Combustible dust
Magnesium stearate (557-04-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	

15.2. US State Regulations

Neither this product nor its chemical components appear on any US state lists, or its chemical components are not required to be disclosed.

15.3. Canadian Regulations

Magnesium stearate (557-04-0)	
Listed on the Canadian DSL (Domestic Substances List)	

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SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 05/01/2025

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2022-272.

Full text of hazard classes and H-statements:

Comb. Dust	Combustible Dust
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Glossary of Data Source Abbreviations

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)
AU_WES: Australia WES
CHEMVIEW: ChemView (U.S. Environmental Protection Agency)
EC_RAR: European Commission Renewal Assessment Report
EC_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits
ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports
ECHA_API: European Chemicals Agency API
ECHA_RAC: ECHA Committee for Risk Assessment
EFSA: European Food Safety Authority
EPA: U.S. Environmental Protection Agency
EPA_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)
EPA_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)
EPA_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency)
EPA_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)
EU_CLH: European Union Harmonised Classification and Labelling Proposal
EU_RAR: European Union Risk Assessment Report

FOOD_JOURN: Food Research Journal (1956)
IARC: The International Agency for Research on Cancer
IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles
IUCLID: International Uniform Chemical Information Database
JAPAN_GHS: Japan GHS Basis for Classification Data
JP_J-CHECK: Japan J-Check
KR_NIER: South Korea National Institute of Environmental Research Evaluations
NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme
NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)
NLM_CIP: National Library of Medicine ChemID plus database
NLM_HSDB: National Library of Medicine Hazardous Substance Data Bank
NLM_PUBMED: National Library of Medicine PubMed database
NTP: National Toxicology Program
NZ_CCID: New Zealand Chemical Classification and Information Database
OECD_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)
OECD_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)
WHO: World Health Organization

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