SECTION 1: IDENTIFICATION

Product Name: Magnesium Stearate
Trade name: SAK-MS
CAS Number: 557-04-0
Product Class: Lubricant
Chemical Name: Magnesium Salt of Stearic Acid
Chemical Formula: Mg(C18H35O2)2

Company
Silver Fern Chemical, Inc.
2226 Queen Anne Avenue North
Suite #C
Seattle WA 98109, USA

Business Contact
Customer Service: 206-282-3376
info@silverfernchemical.com

SECTION 2: HAZARD IDENTIFICATION

PHYSICAL HAZARDS Explosive hazard when concentrated dust is present.

HEALTH HAZARDS Irritant.

EXPOSURE LIMITS OSHA Permissible Exposure Limit (PEL): 15 mg/m3 total dust.
ACGIH Threshold Limit Value (TLV): 10 mg/m3 for total dust for stearates.

ROUTES OF EXPOSURE

Skin Absorption May cause irritation with symptoms of redness, swelling, itching and pain.
Eye Contact Eye contact may cause irritation with symptoms of redness, swelling, itching, tearing and pain.
Ingestion May cause gastroenteritis (inflammation of the lining membrane of the stomach and intestines) with abdominal pain, nausea, vomiting and diarrhea.
Inhalation May cause irritation to the respiratory tract.

EFFECTS OF OVER-EXPOSURE Not known to aggravate any pre-existing conditions.
SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>COMPONENTS</th>
<th>CAS NO.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium Stearate</td>
<td>557-04-0</td>
<td>100</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

**Skin** Immediately remove any contaminated clothing. Wash contaminated area thoroughly with soap and copious amounts of water for at least 15 minutes. If irritation or adverse symptoms develop, seek medical attention.

**Eyes** Remove any contact lenses at once. Flush eyes with water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. If irritation or adverse symptoms develop, seek medical attention.

**Ingestion** Contact a physician, hospital or Poison Control Center at once.

**Inhalation** Remove to fresh air, if coughing, breathing becomes labored, irritation develops or other symptoms develop, seek medical attention at once, even if symptoms develop several hours after the exposure.

SECTION 5: FIRE FIGHTING MEASURES

**FLASH POINT**: >350°F (177°C), C.O.C.

**FLAMMABLE LIMITS**: Not established.

**AUTO IGNITION TEMP.**: >700°F (371°C)

**FIRE EXTINGUISHER MEDIA** Water spray, foam, carbon dioxide or dry chemical.

**SPECIAL FIRE FIGHTING PROCEDURES**
Burning will produce toxic fumes. Firemen should be equipped with SCBA with a full face piece operated in the positive pressure demand mode with appropriate turnout gear and chemical resistant personal protective equipment.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**
Concentrated dust may present an explosion hazard.

SECTION 6: ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN EVENT OF SPILL OR RELEASE**
Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking
tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

SECTION 7: HANDLING AND STORAGE

HANDLING Avoid dust formation and control ignition sources. Employ grounding, venting and explosion relief provisions in accord with accepted engineering practices in any process of capable of generating dust and/or static electricity. Empty only into inert or non-flammable atmosphere. Emptying contents into a non-inert atmosphere where flammable vapors may be present could cause a flash fire or explosion due to electrostatic discharge. DO NOT USE NEAR FOOD OR DRINK. Avoid eye contact. Use with adequate ventilation. Wear personal protection equipment recommended in section 8. Reseal containers immediately after use.

STORAGE Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. DO NOT STORE WITH FOOD OR DRINK.

OTHER PRECAUTIONS Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for this product.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY PROTECTION Work ambient concentrations should be monitored and if airborne concentrations are expected to exceed acceptable levels wear a NIOSH/MSHA approved dust airpurifying respirator. When using respirators refer to OSHA’s 29CFR 1910.134.

VENTILATION Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure.

EYE PROTECTION Safety goggles recommended. Permanent eyewash is highly recommended.

HAND PROTECTION Protective gloves recommended.

OTHER Emergency showers and eye wash stations should be available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Fine white powder with slight fatty odor.

BOILING POINT: Not established.
Material Safety Data Sheet

MAGNESIUM STEARATE

SPECIFIC GRAVITY: 1.0
VAPOR PRESSURE: Not established.
SOLUBILITY IN WATER: Insoluble.
EVAPORATION RATE: Not established.
FLASH POINT: >350˚F (177° C), C.O.C.
VAPOR DENSITY: Not established.
FLAMMABLE LIMITS: Not established.
% VOLATILE BY VOLUME: Not established.

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and transport
Incompatibility: Can react with strong acids
Hazardous decomposition products: Magnesium oxide fume, Carbon monoxide
Hazardous Polymerization: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Magnesium Stearate
Hazard Data:
Oral: Rat--TDLo: 1092 gm/kg/13W-C, liver - L70 nutritional and gross metabolic - weight loss or decreased in weight gain.

SECTION 12: ECOLOGICAL INFORMATION

No data is available on the preparation itself. The product should be prevented from entering drains, sewers, streams, etc.

SECTION 13: DISPOSAL CONSIDERATIONS

Immediately dispose of waste material in accordance with federal, state and local regulations.

Prevent material from entering drains, sewers, streams, etc.

SECTION 14: TRANSPORT INFORMATION

Effective Date: 6/16/2006
Material Safety Data Sheet

MAGNESIUM STEARATE

FOR DOMESTIC
NO DOT LABEL REQUIRED

NMFC CLASSIFICATION
METALLIC SOAPS OF FATTY ACID
ITEM # 45230, CLASS 65

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

The following chemicals are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Chemical Name CAS Number Percent
None
Reportable Quantity
Not applicable.

Australian Inventory of Chemical Substances (AICS)
The ingredients in this product are listed in the Australian AICS Inventory.

Canadian Domestic Substances List (DSL)
The ingredients in this product are listed in the Canadian DSL Inventory.

Chinese Inventory of Existing Chemical Substances Manufactured or Imported in China (IECSC)
The ingredients in this product are listed in the Chinese IECSC Inventory.

European Inventory of Existing Commercial Chemical Substances (EINECS)
The ingredients in this product are listed in the European EINECS Inventory.

Japanese Existing and New Chemical Substances (ENCS)
The ingredients in this product are listed in the Japanese ENCS Inventory.

Korean Existing Chemicals List (ECL)
The ingredients in this product are listed in the Korean ECL Inventory.

Philippines Inventory of Chemicals and Chemical Substances (PICCS)
The ingredients in this product are listed in the Philippines PICCS Inventory.

US Toxic Substances Control Act (TSCA)
The ingredients in this product are listed in the US TSCA Inventory.

Status of Carcinogenicity
Not recognized as a carcinogen by the IARC, NTP or OSHA.

SECTION 16: OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA 704 Rating</th>
<th>HMIS Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Flammability Reactivity</td>
<td>Health Flammability Reactivity</td>
</tr>
</tbody>
</table>

Effective Date: 6/16/2006
Material Safety Data Sheet

MAGNESIUM STEARATE

DISCLAIMER OF RESPONSIBILITY

The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this MSDS information may not be applicable.

<end of document>