# Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

## Product name
LITH-X® Dry Powder

<table>
<thead>
<tr>
<th>1. Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1. Product Identifier</strong></td>
</tr>
<tr>
<td><strong>Product name</strong></td>
</tr>
<tr>
<td><strong>1.2. Other means of identification</strong></td>
</tr>
<tr>
<td><strong>Product code</strong></td>
</tr>
<tr>
<td><strong>Synonyms</strong></td>
</tr>
<tr>
<td><strong>Chemical Family</strong></td>
</tr>
<tr>
<td><strong>1.3. Recommended use of the chemical and restrictions on use</strong></td>
</tr>
<tr>
<td><strong>Recommended use</strong></td>
</tr>
<tr>
<td><strong>Uses advised against</strong></td>
</tr>
<tr>
<td><strong>1.4. Details of the Supplier of the Safety Data Sheet</strong></td>
</tr>
<tr>
<td><strong>Company Name</strong></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Contact point</strong></td>
</tr>
<tr>
<td><strong>E-mail address</strong></td>
</tr>
<tr>
<td><strong>1.5. Emergency Telephone Number</strong></td>
</tr>
<tr>
<td><strong>Emergency telephone</strong></td>
</tr>
</tbody>
</table>

## 2. Hazards Identification

### Classification

**OSHA Regulatory Status**

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### 2.2. Label Elements

The product contains no substances which at their given concentration, are considered to be hazardous to health

### Precautionary Statements

### 2.3. Hazards Not Otherwise Classified (HNOC)

Not Applicable.

### 2.4. OTHER INFORMATION

**Unknown Acute Toxicity**

0% of the mixture consists of ingredient(s) of unknown toxicity

## 3. Composition/information on Ingredients

| **Revision date** | 25-May-2015 |
| **Version** | 25 |
3.1. Mixture

The following component(s) in this product are considered hazardous under applicable OSHA(USA)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite</td>
<td>7782-42-5</td>
<td>60 - 100</td>
</tr>
<tr>
<td>Attapulgite</td>
<td>12174-11-7</td>
<td>3 - 7</td>
</tr>
<tr>
<td>Magnesium stearate</td>
<td>557-04-0</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin contact
Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation
If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

Ingestion
If swallowed. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms
None known.

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

Note to physicians
Treat symptomatically.

5. Fire-fighting measures

5.1. Suitable Extinguishing Media

Product is extinguishing agent. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Unsuitable Extinguishing Media

None.

5.3. Specific Hazards Arising from the Chemical

None in particular.

5.4. Explosion Data

Sensitivity to Mechanical Impact
None.

Sensitivity to Static Discharge
None.

5.5. Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Personal Precautions


For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental Precautions

Environmental Precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Stop leak if you can do it without risk. If sweeping of a contaminated area is necessary use a dust suppressing agent which does not react with product. Dike far ahead of spill; use dry sand to contain the flow of material. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for Cleaning Up

Following product recovery, flush area with water.

7. Handling and Storage

7.1. Precautions for Safe Handling

Advice on safe handling

Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. Use personal protective equipment as required. Wash thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Guard against dust accumulation of material. Use care in handling/storage.

Incompatible Materials

Strong acids.

8. Exposure Controls/Personal Protection

8.1. Control Parameters

Exposure guidelines

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite 7782-42-5</td>
<td>TWA: 2 mg/m³ respirable fraction all forms except graphite fibers</td>
<td>TWA: 15 mppcf natural</td>
<td>IDLH: 1250 mg/m³ natural dust</td>
</tr>
<tr>
<td>Attapulgite 12174-11-7</td>
<td>TWA: 1 mg/m³ respirable fraction</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Magnesium stearate 557-04-0</td>
<td>TWA: 10 mg/m³ except stearates of toxic metals</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor) NIOSH IDLH: Immediately Dangerous to Life or Health

8.2. Appropriate Engineering Controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.
8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection  Wear safety glasses with side shields (or goggles).

Skin and Body Protection  No special precautions are needed in handling this material.

Respiratory Protection  In case of insufficient ventilation, wear suitable respiratory equipment.

Ventilation  Use local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations
Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>VALUES</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>powder</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
<td>Color Black</td>
</tr>
<tr>
<td>odor threshold</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability limit in air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

10.1. Chemical Stability

Stable under recommended storage conditions.

10.2. Reactivity

No data available
10.3. Possibility of hazardous reactions

None under normal processing.

hazardous polymerization Hazardous polymerization does not occur.

10.4. Conditions to Avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible Materials

Strong acids.

10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx).

11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information

INHALATION May cause irritation of respiratory tract.
Eye Contact May cause irritation.
Skin contact May cause irritation.

INGESTION Ingestion may cause irritation to mucous membranes.

Acute Toxicity

11.2. Information on Toxicological Effects

Symptoms No information available.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

sensitization No information available.
Germ Cell Mutagenicity No information available
Attapulgite (palygorskite fibers) is a hydrated magnesium aluminum silicate. Long palygorskite (attapulgite) fibers (>5 micrometers) are possibly carcinogenic to humans (Group 2B). Short palygorskite (attapulgite) fibers (<5 micrometers) cannot be classified as to their carcinogenicity to humans (Group 3). The attapulgite present in this product contains fibers 0.5-2.5 um range, so would be considered by IARC as Group 3.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attapulgite</td>
<td>-</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen

Reproductive Toxicity No information available.
STOT - Single Exposure No information available.
STOT - Repeated Exposure No information available.
Aspiration Hazard No information available.
11.4. Numerical Measures of Toxicity - Product information
The following values are calculated based on chapter 3.1 of the GHS document  mg/kg

12. Ecological Information

12.1. ecotoxicity
Not classified

8.8% of the mixture consists of components(s) of unknown hazards to the aquatic environment

12.2. Persistence and Degradability
No information available.

12.3. Bioaccumulation
No information available.

12.4. Other Adverse Effects
No information available

13. Disposal Considerations

13.1. Waste Treatment Methods
Disposal of wastes  Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging  Do not reuse container.

14. Transport Information

DOT  NOT REGULATED

TDG  NOT REGULATED

MEX  NOT REGULATED

15. Regulatory Information

15.1. International Inventories
TSCA  Complies
DSL/NDSL  Complies
ENCS  Does not comply
IECS  Complies
KECL  Does not comply
PICCS  Complies
Product code 009334 / Product name LITH-X® Dry Powder

AICS Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCs - Japan Existing and New Chemical Substances
IECS - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. US Federal Regulations
SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories
Acute Health Hazard No
Chronic health hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

15.3. US State Regulations
California Proposition 65
Classification only applies to Attapulgite with fibers >5 um. This product contains Attapulgite with fibers <5 um.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attapulgite 12174-11-7</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite 7782-42-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

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

NFPA Health Hazards 0 flammability 0 Instability 0
HMIS Health Hazards 0 flammability 0 Physical Hazards 0 Physical and chemical properties - Personal Protection X

Revision date 25-May-2015
Revision note
No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet