Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name MAGRABAR® MD-4438
Material No. 7731
Historic Material No. F0611

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Anti-foaming agent (defoamer)
Uses advised against Consumer use

1.3. Details of the supplier of the safety data sheet

Manufacturer
MUNZING NORTH AMERICA – MAGRABAR LLC
6100 Madison Court
Morton Grove, IL 60053-3216
United States
Email: info@magrabar.com
Telephone: 1-847-965-7550

Supplier
Münzing Chemie GmbH
Münzingstrasse 2
74232 Abstatt
Germany
Email: info@munzing.com
Phone: +49 (0) 7131/987-0

Emergency Telephone

Emergency telephone CHEMTREC: +1 703 741 5970
2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label Elements
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]
EUH210 - Safety data sheet available on request

2.3. Other hazards
No information available.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EC No.</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>REACH No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize starch</td>
<td>232-679-6</td>
<td>9005-25-8</td>
<td>20 - 50</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Full text of H- and EUH-phrases: see section 16
Substance with a Community workplace exposure limit.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact 
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact 
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation 
Move victim to fresh air.

Ingestion 
Clean mouth with water and drink afterwards plenty of water.

Self-Protection of the First Aider 
Use personal protection equipment.

4.2. Most important symptoms and effects, both acute and delayed

Most important symptoms and effects 
No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician 
Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media 
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO2). Alcohol resistant foam.
Unsuitable Extinguishing Media  No information available.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products  Varied particulate matter. Carbon dioxide (CO2). Flammable/toxic gases may accumulate in tanks and hopper cars. Produce flammable and toxic gases on contact with water.

5.3. Advice for firefighters

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

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions  Use personal protection equipment. Avoid contact with skin, eyes or clothing.

Protective precautions  Use personal protection equipment.

6.2. Environmental precautions

Environmental precautions  Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for Containment  Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Methods for Clean-Up  Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Reference to other sections  See Sections 5 & 7 for additional information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling  Avoid dust formation. Fine dust dispersed in air may ignite. Remove all sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges resulting from the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Take precautionary measures against static discharges.

Handle in accordance with good industrial hygiene and safety practice. Do not breathe dusts or mists.

Refer to "NFPA 654", Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling recommendations.

General Hygiene Considerations  Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions  Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled
containers.

7.3. Specific end use(s)
Specific Uses  No information available.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
Exposure limits

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EU</th>
<th>United Kingdom</th>
<th>France</th>
<th>Spain</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize starch</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>TWA: 10 mg/m³</td>
</tr>
</tbody>
</table>

Chemical name  | Italy | Portugal | Netherlands | Finland | Denmark |
Maize starch   | -     | TWA: 10 mg/m³ | -       | -      | -       |

Chemical name  | Austria | Switzerland | Poland | Norway | Ireland |
Maize starch   | -       | TWA: 3 mg/m³ |  -     | -      | TWA: 10 mg/m³ |
|               |         |              |        |        | TWA: 4 mg/m³ |
|               |         |              |        |        | STEL: 30 mg/m³ |
|               |         |              |        |        | STEL: 12 mg/m³ |

Derived No Effect Level (DNEL)  No information available.
Predicted No Effect Concentration (PNEC)  No information available.

8.2. Exposure controls
Engineering Controls  Ensure adequate ventilation, especially in confined areas.

Personal protective equipment
Eye/Face Protection  Tight sealing safety goggles.
Skin protection  Wear suitable protective clothing and gloves. Wear protective nitrile rubber gloves. Glove thickness. > 0.4 mm. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.
Respiratory protection  In the case of dust or aerosol formation use respirator with an approved filter.

Environmental exposure controls  No information available.

Section 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>Solid Powder</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Opaque, White, Yellow</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Mild Organic</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity Stable under normal conditions.

10.2. Chemical stability

Chemical Stability Stable under normal conditions.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

10.4. Conditions to avoid

Conditions to Avoid Heat, flames and sparks.

10.5. Incompatible materials

Incompatible Materials Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO2). Fumes.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity

Product Information

Eyes Contact with eyes may cause irritation. Avoid contact with eyes.

Skin Substance may cause slight skin irritation. Avoid contact with skin.

Inhalation Health injuries are not known or expected under normal use.

Ingestion Health injuries are not known or expected under normal use.

Unknown acute toxicity Not applicable.
ATEmix (oral) No data available
ATEmix (dermal) No data available
ATEmix (inhalation-dust/mist) No data available

Skin Corrosion/Irritation No information available.
Eye damage/irritation No information available.
Sensitization No information available.
Mutagenic effects No information available.
Reproductive Effects No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration Hazard No information available.
Carcinogenic effects No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity None known.
Unknown Aquatic Toxicity Not applicable.

Persistence and degradability

12.3. Bioaccumulative potential
Bioaccumulation/Accumulation No information available.

12.4. Mobility in soil
Mobility in Environmental Media No information available.

12.5. Results of PBT and vPvB assessment
PBT and vPvB assessment Not applicable.

12.6. Other adverse effects
Other adverse effects No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from residues/unused products Contain and dispose of waste according to local regulations.
Contaminated packaging

Empty remaining contents.

Waste codes / waste designations according to EWC / AVV

Not applicable.

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**Section 14: TRANSPORT INFORMATION**

**ADR/RID**

Not regulated

**IMDG/IMO**

Not regulated

**IATA**

Not regulated

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**Section 15: REGULATORY INFORMATION**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**International Inventories**

**US TSCA**

Complies

**Australia (AICS)**

Complies

**Canada (DSL)**

Complies

**China (IECSC)**

Complies

**Europe (EINECS/ELINCS/NLP)**

Complies

**Japan (ENCS)**

Contact manufacturer

**South Korea (KECL)**

Contact manufacturer

**Philippines (PICCS)**

Complies

**New Zealand**

Complies

**Taiwan (TCSI)**

Complies

**Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - 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

**Germany**

**WGK Classification (AwSV)**

Water endangering class = 2 (self estimation)

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**Authorizations and/or restrictions on use:**

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV). This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

**Persistent Organic Pollutants**

Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

15.2. Chemical safety assessment

No information available
Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
No information available

Legend
SVHC: Substances of Very High Concern for Authorization:

TWA - TWA (time-weighted average)
STEL - STEL (Short Term Exposure Limit)
Ceiling - Maximum limit value
* - Skin designation

Classification procedure Minimum classification

Issue Date: 2015-12-08
Revision Date: 2019-07-11
Reason for revision Update to Format.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
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End of Safety Data Sheet