SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product form: Substance
Trade name: Foremost® Lactose Monohydrate, NF
Chemical name: Lactose Monohydrate
CAS No.: 64044-51-5
Product code:
WL10400310; WL10400314; WL10404316; WL10405312; WL10405316; WL10406310; WL10406312; WL10406313; WL10406315; WL10407310; WL10407312; WL10407315; WL10408312; WL10408313; WL10408316; WL10411310; WL10412310; WL10413310; WL10414310; WL10415310; WL10419315

Formula: C12H22O11.H2O
Synonyms: Milk Sugar
Product group: Trade product
Other means of identification: Foremost® NF Fast Flo® Lactose

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

1.2.1 Relevant identified uses
Use of the substance/preparation: Excipient material used in pharmaceutical applications

1.2.2 Uses advised against
No additional information available

1.3 Details of the supplier of the safety data sheet
Foremost Farms USA
E10889 Penny Lane
Baraboo, WI 53913-8115
1-800-362-9196 (USA) 8:00 AM – 5:00 PM CST

For more information contact:
Justin.Pope@ForemostFarms.com
www.foremostfarms.com

1.4 Emergency telephone number
Emergency Number: 715-359-0534 (USA)

Access codes apply when calling outside the US

SECTION 2: Classification of the substance or mixture

2.1 Classification of the substance or mixture

Classification (GHS-US/WHMIS): Combustible Dust

Substance not classified according to Regulation (EC) No. 1272/2008 [CLP]
2.2. Label elements

Hazard pictograms (GHS-US/WHMIS) : None
Signal word (GHS-US/WHMIS) : Warning
Hazard statements (GHS-US/WHMIS) : May form combustible dust concentrations in air
Precautionary statements (GHS-US/WHMIS) : None

2.3. Other hazards

According to EU Directives/Regulations : May form explosible dust-air mixture if dispersed

SECTION 3 : Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent
Name : Foremost ® Lactose Monohydrate, NF
CAS No. : 64044-51-5
EC no : Not applicable
EC index no : Not applicable

| Name: Lactose, monohydrate | Product identifier (CAS No.): 64044-51-5 | 100% by Wt. |

GHS-US/WHMIS Classification: Combustible Dust

Classification according to Regulation (EC) No. 1272/2008 [CLP]: Not Classified

3.2. Mixtures

Non applicable

SECTION 4 : First aid measures

4.1. Description of first aid measures

First-aid measures general : If medical advice is needed, have product container or label at hand.
First-aid measures after inhalation : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact : Rinse with plenty of water.
First-aid measures after eye contact : Rinse with water while holding eyelids open. If eye irritation persists: Get medical advice and attention.
First-aid measures after ingestion : Does not induce vomiting. Seek medical attention if a large amount is swallowed.

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

Symptoms/injuries : Prolonged contact with large amounts of dust may cause mechanical irritation.
Symptoms/injuries after inhalation: None under normal use. Overexposure may be irritating to the respiratory system.

Symptoms/injuries skin contact: None under normal use. Prolonged contact with a large amount of dust may cause mechanical irritation.

Symptoms/injuries eye contact: None under normal use. Prolonged contact with large amounts of dust may cause mechanical irritation.

Symptoms/injuries ingestion: None under normal use.

Chronic symptoms: Prolonged inhalation of dust may cause respiration irritation.

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

No additional information available

**SECTION 5: Firefighting measures**

5.1. **Extinguishing media**

Suitable extinguishing media: Not considered flammable but will burn at high temperatures. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: Avoid high pressure media which could cause the formation of a potentially exploisible dust-air mixture.

5.2. **Special hazards arising from the substance or mixture**

Fire hazard: Combustible Dust. Dust explosion hazard in air.

Explosion hazard: Dust clouds can be explosive. Avoid dust clouds in combination with static electricity.

Reactivity: Stable at ambient temperature and under normal conditions of use.

5.3. **Advice for firefighters**

Firefighting instructions: Do not breathe fumes from fires or vapors from decomposition.

Protection during firefighting: Use normal individual fire protective equipment.

**SECTION 6: Accidental release measures**

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

General measures: Handle in accordance with good industrial hygiene and safety practice. Good housekeeping is needed during storage, transfer, handling, and use of this material to avoid excessive dust accumulation.

6.1.1. **For non-emergency personnel**

Protective equipment: Not required for normal conditions of use

Emergency procedures: Collect as any solid. Ventilate area.

6.1.2. **For emergency responders**

Protective equipment: Not applicable

Emergency procedures: If possible, stop flow of product. Contain and collect as any solid. Ventilate area.
6.2. Environmental precautions
No additional information available

6.3. Methods and material for containment and cleaning up
For containment: Contain and collect as any solid.
Methods for cleaning up: Avoid generation of dust during clean-up of spills.

6.4. Reference to other sections
No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Handle in accordance with good industrial hygiene and safety procedures. Good housekeeping is needed during storage, transfer, handling, and use of this material to avoid excessive dust accumulation. Take precautionary measures against static discharge.
Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Protect from moisture. Store in a dry, cool place. Keep container tightly closed.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No additional information available

8.2. Exposure controls
Appropriate engineering controls: Avoid dust production. Ensure adequate ventilation, especially in confined areas. Take precautionary measures against static discharges.
Personal protective equipment: Safety glasses
Eye protection: Safety glasses
Skin and body protection: Wear suitable protective clothing.
Respiratory protection: Not required for normal conditions of use. In case of inadequate ventilation wear respiratory protection.
Environmental exposure controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
Consumer exposure controls: Wear recommended personal protective equipment.
### SECTION 9 : Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Odor threshold</td>
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<tr>
<td>pH</td>
<td>Slight acidic</td>
</tr>
<tr>
<td>Concentration of pH solution</td>
<td>10 %</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>202 °C (396 °F)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Self ignition temperature</td>
<td>360 - 470 °C (680 °F – 878 °F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/Lower flammable limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble.</td>
</tr>
<tr>
<td></td>
<td>Water: 21.6g/100ml at 25 °C (77 °F)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity , kinematic</td>
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<tr>
<td>Viscosity, dynamic</td>
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</tr>
<tr>
<td>Explosive properties</td>
<td>See range below.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>None known.</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>30 – 125 g/m³</td>
</tr>
</tbody>
</table>

#### 9.2. Other Information

No additional information available
SECTION 10: Stability and reactivity

10.1. Reactivity
Stable at ambient temperature and under normal conditions of use.

10.2. Chemical stability
Stable at standard temperature and pressure

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Use good housekeeping practices during storage, transfer, and handling to avoid excessive dust accumulation.

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Under conditions of fire this material may produce: Carbon dioxide; Carbon monoxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified
Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeating exposure) : Not classified
Aspiration hazard : Not classified
Symptoms/effects both acute and chronic : None under normal use. Prolonged contact with large amounts of dust may cause mechanical irritation and allergy symptoms in individuals with milk allergies.

SECTION 12: Ecological information

12.1. Toxicity
No additional information available

12.2. Persistence and degradability
12.3. **Bioaccumulative potential**
No additional information available

12.4. **Mobility in soil**
No additional information available

12.5. **Results of PBT and vPvB assessment**
No additional information available

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

**SECTION 13: Disposal considerations**

13.1. **Waste treatment methods**

Sewage disposal recommendations: Do not dispose of waste into sewer

Waste disposal recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

**SECTION 14: Transport information**

In accordance with DOT/ TDG/ ADR/ RID/ ADNR/ IMDG/ ICAO/ IATA

14.1. **UN number**
No dangerous good in sense of transport regulations.

14.2. **UN proper shipping name**
Not applicable

14.3. **Additional Information**
No additional information available

14.4. **Overland transport**
No additional information available

14.5. **Transport by sea**
No additional information available

14.6. **Air Transport**
No additional information available

14.7. **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable
SECTION 15 : Regulatory information

15.1 US Federal regulations
The Product is intended for human consumption and therefore is subject to substantial regulatory oversight by the United States, including but not limited to the Federal Food, Drug, and Cosmetic Act and the Food Safety Modernization Act.

15.2 EU Regulations
Contains no REACH Annex XVII restrictions or REACH candidate substances
This substance is for consumption and as such, is exempt from REACH registration requirements
Chemical Safety Assessment : Not applicable

15.3 National regulations
The Product is intended for human consumption and therefore is usually subject to regulatory oversight by any nation to which it is exported.

15.4 US State Regulations
The Product is intended for human consumption and therefore is subject to regulatory oversight by the states, including but not limited to the Wisconsin Food Code.

SECTION 16 : Other Information

SDS format in accordance with OSHA GHS 1910.1200
SDS format in accordance with WHMIS 2015
SDS format in accordance with Regulation (EU) No. 2015/830

16.1 Summary of Last Revision
Substantial revisions made to comply with WHMIS 2015 and Regulation (EU) No. 2015/830.

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.