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

<table>
<thead>
<tr>
<th>1.1. Product identifier</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>Substance name</td>
<td>Ferric Phosphate Hydrate</td>
</tr>
<tr>
<td>Chemical name</td>
<td>Ferric Orthophosphate</td>
</tr>
<tr>
<td>CAS No</td>
<td>10045-86-0</td>
</tr>
<tr>
<td>Product code</td>
<td>2353 &amp; 2354</td>
</tr>
<tr>
<td>Formula</td>
<td>FePO₄·xH₂O</td>
</tr>
<tr>
<td>Synonyms</td>
<td>ferric orthophosphate / ferric phosphate / iron orthophosphate / iron phosphate / phosphoric acid, iron(3+) salt (1:1)</td>
</tr>
<tr>
<td>BIG no</td>
<td>38927</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.2. Relevant identified uses of the substance or mixture and uses advised against</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of the substance/mixture</td>
<td>Animal feeding stuff: supplement</td>
</tr>
<tr>
<td></td>
<td>Food industry: supplement</td>
</tr>
<tr>
<td></td>
<td>Fertilizer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.3. Details of the supplier of the safety data sheet</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jost Chemical Co.</td>
<td></td>
</tr>
<tr>
<td>8150 Lackland Rd.</td>
<td></td>
</tr>
<tr>
<td>Saint Louis, Missouri 63114</td>
<td></td>
</tr>
<tr>
<td>T 314-428-4300 - F 314-428-4366</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.jostchemical.com">www.jostchemical.com</a></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.4. Emergency telephone number</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency number</td>
<td>CHEMTREC 800-424-9300</td>
</tr>
</tbody>
</table>

**SECTION 2: Hazards identification**

<table>
<thead>
<tr>
<th>2.1. Classification of the substance or mixture</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification (GHS-US)</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2. Label elements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS-US labeling</td>
<td>No labeling applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.3. Other hazards</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No additional information available</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.4. Unknown acute toxicity (GHS US)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 3: Composition/information on ingredients**

<table>
<thead>
<tr>
<th>3.1. Substance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance type</td>
<td>Mono-constituent</td>
</tr>
<tr>
<td>Full text of H-phrases: see section 16</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.2. Mixture</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 4: First aid measures**

<table>
<thead>
<tr>
<th>4.1. Description of first aid measures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>First-aid measures general</td>
<td>If you feel unwell, seek medical advice.</td>
</tr>
<tr>
<td>First-aid measures after inhalation</td>
<td>Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.</td>
</tr>
<tr>
<td>First-aid measures after skin contact</td>
<td>Rinse with water. Take victim to a doctor if irritation persists.</td>
</tr>
<tr>
<td>First-aid measures after eye contact</td>
<td>Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.</td>
</tr>
</tbody>
</table>
First-aid measures after ingestion
Rinse mouth with water. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell.

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

<table>
<thead>
<tr>
<th>Symptoms/Injuries</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>After inhalation</td>
<td>No effects known.</td>
</tr>
<tr>
<td>After skin contact</td>
<td>No effects known.</td>
</tr>
<tr>
<td>After eye contact</td>
<td>Slight irritation.</td>
</tr>
<tr>
<td>Chronic symptoms</td>
<td>No effects known.</td>
</tr>
</tbody>
</table>

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

| Suitable extinguishing media | Water. ABC powder. Carbon dioxide. Dry sand. |
| Unsuitable extinguishing media | No unsuitable extinguishing media known. |

5.2. Special hazards arising from the substance or mixture

| Fire hazard | DIRECT FIRE HAZARD. No data available on direct fire hazard. INDIRECT FIRE HAZARD. No data available on indirect fire hazard. |
| Explosion hazard | DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD. No data available on indirect explosion hazard. |
| Reactivity | On burning: release of toxic and corrosive gases/vapours (phosphorus oxides). |

5.3. Advice for firefighters

| Precautionary measures fire | Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows. |
| Firefighting instructions | Dilute toxic gases with water spray. |
| Protection during firefighting | Heat/fire exposure: compressed air/oxygen apparatus. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| Emergency procedures  | Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes. |
| Measures in case of dust release | In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows. |

6.1.2. For emergency responders

| Protective equipment | Do not attempt to take action without suitable protective equipment. For further information refer to section 8 Exposure controls/personal protection* *. |

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

| For containment | Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. |
| Methods for cleaning up | Prevent dust cloud formation. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. |
| Other information | Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections
For further information refer to section 8 Exposure-controls/personal protection**. |
SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Comply with the legal requirements. Clean contaminated clothing. Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a well-ventilated place. Keep cool.

Heat-ignition: KEEP SUBSTANCE AWAY FROM: heat sources.

Prohibitions on mixed storage: No data available.

Storage area: Store in a dry area. Keep container in a well-ventilated place. Meet the legal requirements.

Special rules on packaging: SPECIAL REQUIREMENTS: closing, correctly labelled, meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials: SUITABLE MATERIAL: wood. polyethylene.

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: Ensure good ventilation of the work station. Extraction to remove dust at its source.


Materials for protective clothing: GIVE GOOD RESISTANCE: rubber. polyethylene.

Hand protection: Gloves.


Skin and body protection: Protective clothing.

Respiratory protection: Dust production: dust mask with filter type P2.

Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Solid

Appearance: Crystalline solid. Amorphous powder.

Color: White-yellow to brown

Odor: No data available on odour

Odor threshold: No data available

pH: No data available

Melting point: No data available

Freezing point: Not applicable

Boiling point: No data available

Flash point: Not applicable

Relative evaporation rate (butyl acetate=1): No data available

Flammability (solid, gas): No data available

Explosion limits: Not applicable

Explosive properties: No data available

Oxidizing properties: No data available
Ferric Phosphate Hydrate
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Vapor pressure: No data available
Relative density: 2.9
Relative vapor density at 20 °C: No data available
Specific gravity / density: 2870 kg/m³
Molecular mass: 150.83 g/mol
Log Pow: No data available
Log Kow: No data available
Auto-ignition temperature: Not applicable
Decomposition temperature: No data available
Viscosity: No data available
VOC content: Not applicable

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity
On burning: release of toxic and corrosive gases/vapours (phosphorus oxides).

10.2. Chemical stability
No data available.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified
(Based on available data, the classification criteria are not met)

Skin corrosion/irritation: Not classified
(Based on available data, the classification criteria are not met)

Serious eye damage/irritation: Not classified
(Based on available data, the classification criteria are not met)

Respiratory or skin sensitization: Not classified
(Based on available data, the classification criteria are not met)

Germ cell mutagenicity: Not classified
(Lack of data)

Carcinogenicity: Not classified
(Lack of data)

Reproductive toxicity: Not classified
(Lack of data)

Specific target organ toxicity (single exposure): Not classified
(Lack of data)

Specific target organ toxicity (repeated exposure): Not classified
(Lack of data)
Aspiration hazard: Not classified (Not applicable)

Symptoms/injuries after inhalation: No effects known.
Symptoms/injuries after skin contact: No effects known.
Symptoms/injuries after eye contact: Slight irritation.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Ecology - air: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water: May cause eutrophication. No data available on ecotoxicity.

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
Effect on the global warming: No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods: Dispose in a safe manner in accordance with local/national regulations.
Waste disposal recommendations: Remove waste in accordance with local and/or national regulations. Recycle/reuse. Remove to an authorized dump (Class I). Do not discharge into surface water.
Additional information: LWCA (the Netherlands): KGA category 05. Can be considered as non hazardous waste according to Directive 2008/98/EC.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated for transport

Additional information
Other information: No supplementary information available.

Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Ferric Phosphate Hydrate (10045-86-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory
This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) 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.

### 15.2. International regulations

**CANADA**

**Ferric Phosphate Hydrate (10045-86-0)**

Listed on the Canadian DSL (Domestic Substances List) inventory.

**EU-Regulations**

**Ferric Phosphate Hydrate (10045-86-0)**

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

**Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]**

Not classified

**National regulations**

**Ferric Phosphate Hydrate (10045-86-0)**

Listed on the AICS (the Australian Inventory of Chemical Substances)

Listed on Inventory of Existing Chemical Substances (IECSC)

Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.

Listed on the Korean ECL (Existing Chemical List) inventory.

Listed on New Zealand - Inventory of Chemicals (NZIoC)

### 15.3. US State regulations

**SECTION 16: Other information**

**Indication of changes**

Initial SDS.

**NFPA health hazard**

1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

**NFPA fire hazard**

0 - Materials that will not burn.

**NFPA reactivity**

0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

**HMIS III Rating**

**Health**

1 Slight Hazard - Irritation or minor reversible injury possible

**Flammability**

0 Minimal Hazard - Materials that will not burn

**Physical**

0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

**Personal Protection**

E - Safety glasses, Gloves, Dust respirator

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.