WEST SYSTEM® 422 Barrier Coat Additive
Safety Data Sheet
Date of issue: 06/01/2015       Revision date: 01/25/2019       Version: 422-2019a

SECTION 1: Identification

Identification
Product name: WEST SYSTEM® 422 Barrier Coat Additive
Product code: 422, 422-16

Relevant identified uses of the substance or mixture and uses advised against
Recommended use: Pigment additive for liquid epoxy resins.

Details of the supplier of the safety data sheet
Manufacturer
Gougeon Brothers, Inc
100 Patterson Ave.
Bay City, MI 48706 - U.S.A.
T 866-937-8797 or 989-684-7286
www.westsystem.com

Emergency telephone number
Emergency number: CHEMTREC 1 (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazard(s) identification

Classification of the substance or mixture
Skin Irrit. 2
Eye Irrit. 2A
Comb. Dust

Label elements
Hazard pictograms (GHS): GHS07

Signal word (GHS): Warning

Hazard statements (GHS): Causes skin irritation. Causes serious eye irritation. May form combustible dust concentrations in air.

Precautionary statements (GHS):
Wash hands thoroughly after handling. Wear protective gloves, protective clothing, eye protection, face protection. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Keep away from all ignition sources including heat, sparks and open flame. Prevent dust accumulations to minimize explosion hazard.

Other hazards
No additional information available

Unknown acute toxicity
Not applicable

SECTION 3: Composition/information on ingredients

Substance
Not applicable

Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>HPR %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>(CAS No) 7429-90-5</td>
<td>60 - 80</td>
</tr>
<tr>
<td>Mica</td>
<td>(CAS No) 12001-26-2</td>
<td>30 - 60</td>
</tr>
</tbody>
</table>
The exact chemical identity and/or exact percentage (concentration) of each ingredient may be held as confidential business information (CBI). Any ingredient not disclosed in this section may have been determined not to be hazardous to health or the environment, or it may be present at a level below its disclosure threshold.

SECTION 4: First aid measures

Description of first aid measures

First-aid measures after inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

First-aid measures after eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after skin contact: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/injuries after ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice/attention immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media: Use dry sand, sodium chloride powder, graphite powder or Met-L-X powder.


Special hazards arising from the substance or mixture

Fire hazard: Combustible dust. Products of combustion may include, and are not limited to: oxides of carbon.

Explosion hazard: Avoid generating dust. Airborne dust in sufficient concentrations when confined and exposed to a sufficient ignition source can explode.

Reactivity: No dangerous reaction known under conditions of normal use.

Advice for firefighters

Protection during firefighting: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray or fog for cooling exposed containers.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures: Remove all sources of ignition. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (ie, clearing dust surfaces with compressed air). Use only non-sparking tools.

For non-emergency personnel

No additional information available

For emergency responders

No additional information available

Environmental precautions

No additional information available

Methods and material for containment and cleaning up

For containment: Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up: Vacuum or sweep material and place in a disposal container. Provide ventilation.
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Reference to other sections
See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage
Precautions for safe handling
Precautions for safe handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin and eyes. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Avoid generating and breathing dust. Use only outdoors or in a well-ventilated area. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc., is not recommended. Handling this product may result in electrostatic accumulation. Use proper grounding procedures.

Hygiene measures: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

SECTION 8: Exposure controls/personal protection
Control parameters

<table>
<thead>
<tr>
<th></th>
<th>ACGIH</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
<th>NIOSH REL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum (7429-90-5)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>1 mg/m³ (respirable particulate matter)</td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>15 mg/m³ (total dust)</td>
<td>5 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>10 mg/m³ (total dust)</td>
<td>5 mg/m³ (respirable dust)</td>
</tr>
<tr>
<td>Mica (12001-26-2)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>3 mg/m³ (respirable particulate matter)</td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
<td>20 mppcf</td>
<td></td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>3 mg/m³ (containing &lt;1% Quartz-respirable dust)</td>
<td></td>
</tr>
</tbody>
</table>

Exposure controls
Appropriate engineering controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Hand protection: Wear chemically resistant protective gloves.
Eye protection: Wear eye/face protection.
Skin and body protection: Wear suitable protective clothing.
Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.
Other information: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties
Information on basic physical and chemical properties
Physical state: Solid
Appearance: Powder
Colour: Silver
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Combustible Dust</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.5 - 2.7</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Dust may form explosive mixture in air</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Other information</td>
<td></td>
</tr>
<tr>
<td>Minimum ignition energy</td>
<td>50 mJ (aluminum powder component)</td>
</tr>
<tr>
<td>Bulk density</td>
<td>20.86 - 22.53 lb/gal (calculated)</td>
</tr>
<tr>
<td>Dust Deflagration Index (Kst)</td>
<td>300 - 400 bar.m/s (aluminum powder component)</td>
</tr>
<tr>
<td>Maximum Explosion Pressure (Pmax)</td>
<td>12.4 bara (aluminum powder component)</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

- **Reactivity**: No dangerous reaction known under conditions of normal use.
- **Chemical stability**: Stable under normal storage conditions. May form combustible dust concentrations in air.
- **Possibility of hazardous reactions**: No dangerous reaction known under conditions of normal use.
- **Hazardous decomposition products**: May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

Information on toxicological effects

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50 oral rat</th>
<th>LC50 inhalation rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum (7429-90-5)</td>
<td>&gt; 2000 mg/kg</td>
<td>&lt; 888 mg/l/4h</td>
</tr>
<tr>
<td>Mica (12001-26-2)</td>
<td>&gt; 2000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

- **Acute toxicity (oral)**: Not classified.
- **Acute toxicity (dermal)**: Not classified.
- **Acute toxicity (inhalation)**: Not classified.
- **Skin corrosion/irritation**: Causes skin irritation.
- **Serious eye damage/irritation**: Causes serious eye irritation.
- **Respiratory or skin sensitization**: Not classified.
- **Germ cell mutagenicity**: Not classified.
- **Carcinogenicity**: Not classified.
- **Reproductive toxicity**: Not classified.
- **STOT-single exposure**: Not classified.
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STOT-repeated exposure : Not classified.
Aspiration hazard : Not classified.
Symptoms/injuries after inhalation : May cause respiratory irritation.
Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

Toxicity
Ecology - general : May cause long-term adverse effects in the aquatic environment.

Persistence and degradability
WEST SYSTEM® 422 Barrier Coat Additive
Persistence and degradability Not established.

Bioaccumulative potential
WEST SYSTEM® 422 Barrier Coat Additive
Bioaccumulative potential Not established.

Mobility in soil
WEST SYSTEM® 422 Barrier Coat Additive
Ecology - soil Not established.

Other adverse effects
Effect on the global warming : No known effects from this product.

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>Ecotoxicity Classification Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>(CAS No) 7429-90-5</td>
<td>No data available</td>
</tr>
<tr>
<td>Mica</td>
<td>(CAS No) 12001-26-2</td>
<td>No data available</td>
</tr>
</tbody>
</table>

SECTION 13: Disposal considerations

Waste treatment methods

Product/Packaging disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)
In accordance with DOT and TDG
Not regulated

Transport by sea
In accordance with IMDG
Not regulated

Transport by air
In accordance with IATA
Not regulated

SECTION 15: Regulatory information

Federal regulations
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:
All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.
Aluminum (7429-90-5)
SARA Section 313 - Emission Reporting 1 % (dust or fume only)

International regulations
No additional information available

US State regulations
California Proposition 65 - This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm

<table>
<thead>
<tr>
<th>Aluminum (7429-90-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List</td>
</tr>
<tr>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mica (12001-26-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

SECTION 16: Other information
Date of issue: 06/01/2015
Revision date: 01/25/2019
Version: 422-2019a
Other information: None.

NFPA health hazard: 1
NFPA fire hazard: 2
NFPA reactivity: 2

HMIS III Rating
Health: 1
Flammability: 2
Physical: 2

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