Maxguard™ WG-LE-5555 WHITE GELCOAT
™ Trademark, Ashland or its subsidiaries, registered in various countries
505615

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<table>
<thead>
<tr>
<th>Ashland</th>
<th>Regulatory Information Number</th>
<th>1-800-325-3751</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O. Box 2219</td>
<td>Telephone</td>
<td>614-790-3333</td>
</tr>
<tr>
<td>Columbus, OH 43216</td>
<td>Emergency telephone number</td>
<td>1-800-ASHLAND (1-800-274-5263)</td>
</tr>
</tbody>
</table>

Product name: Maxguard™ WG-LE-5555 WHITE GELCOAT
™ Trademark, Ashland or its subsidiaries, registered in various countries
Product code: 505615

2. HAZARDS IDENTIFICATION

**Emergency Overview**

Appearance: liquid

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF INHALED. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. MAY CAUSE ALLERGIC SKIN OR RESPIRATORY REACTION. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS.

**Potential Health Effects**

**Exposure routes**
Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

**Eye contact**
Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

**Skin contact**
Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects) peeling of the skin Individuals with direct skin contact with methyl methacrylate have experienced temporary loss of feeling and mild nerve damage in the fingers.

**Ingestion**
Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

**Inhalation**
Breathing of dust, vapor, and/or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Repeated and prolonged exposure to large amounts of talc dust may cause mild lung inflammation. May cause allergic respiratory reaction.
Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

**Aggravated Medical Condition**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Upper respiratory tract, Skin, lung (for example, asthma-like conditions), Liver, Central nervous system, male reproductive system, auditory system, kidney

**Symptoms**

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), pain in the hands and feet, confusion, runny nose, Cough, sneezing, bronchitis, irritability, effects on memory, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects. Lack of coordination, loss of appetite, sleep disturbances, liver damage, kidney damage, Lowered blood pressure, respiratory depression (slowing of the breathing rate), Shortness of breath, chest pain, Difficulty in breathing, Exposure to this product (or a component) may cause an allergic reaction (narrowing of the air passages of the lungs resulting in difficult breathing, tightness in the chest, coughing and wheezing) in some sensitive individuals. Other symptoms of an allergic reaction may include itchy and watery eyes, runny and stuffy nose, sweating, flushing, hives, rapid heart rate, and lowered blood pressure.

**Target Organs**

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible kidney effects, effects on hearing, respiratory tract damage (nose, throat, and airways), testis damage, liver damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: mild effects on color vision, effects on hearing, respiratory tract damage (nose, throat, and airways), central nervous system effects, effects on lung function, nasal damage, kidney damage, Prolonged inhalation of cobalt dust, or metal dust, fume or mist containing cobalt may cause respiratory illness. Overexposure to cobalt compounds has been shown to cause blood, thyroid and heart effects in man., testis damage, blood abnormalities

**Carcinogenicity**

Styrene is listed as a possible human carcinogen by the International Agency for Research on Cancer (IARC) and as reasonably anticipated to be a human carcinogenic by the National Toxicology Program (NTP). Cobalt and certain cobalt compounds have been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. Cobalt and certain cobalt compounds are listed as carcinogenic by the International Agency for Research on Cancer (IARC). Animals inhaling massive quantities of titanium dioxide dust in a long-term study developed lung tumors. It did not cause cancer in laboratory animals in long-term feeding or injection studies. Studies with humans involved in the manufacture of this pigment indicate no increased risk of cancer from exposure. Titanium dioxide is classified as a possible human carcinogen (Category 2B) by the International Agency for Research on Cancer (IARC). This product may contain non-asbestiform talc. Inhalation of non-asbestiform talc has been shown to cause lung and adrenal cancer in female rats and adrenal gland cancer in male rats. It did not cause cancer in male or female mice similarly exposed. Talc is not listed as a carcinogenic by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).
This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Other Information

Styrene readily reacts with low concentrations of halogens (for example, fluorine, chlorine, bromine, or iodine) to form a tear-producing substance.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS-No. / Trade Secret No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>STYRENE</td>
<td>100-42-5</td>
<td>&gt;=20-&lt;30%</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE (TIO2)</td>
<td>13463-67-7</td>
<td>&gt;=15-&lt;20%</td>
</tr>
<tr>
<td>TALC</td>
<td>14807-96-6</td>
<td>&gt;=5-&lt;10%</td>
</tr>
<tr>
<td>ALUMINUM HYDROXIDE</td>
<td>21645-51-2</td>
<td>&gt;=5-&lt;10%</td>
</tr>
<tr>
<td>METHYLMETHACRYLATE</td>
<td>80-62-6</td>
<td>&gt;=1.5-&lt;5%</td>
</tr>
<tr>
<td>SILICA AMORPHOUS (SIO2)</td>
<td>7631-86-9</td>
<td>&gt;=1.5-&lt;5%</td>
</tr>
<tr>
<td>SILICA COLLOIDAL AMORPHOUS</td>
<td>112945-52-5</td>
<td>&gt;=1.5-&lt;5%</td>
</tr>
<tr>
<td>COBALT COMPOUNDS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>&gt;=0.1-&lt;0.5%</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Eyes**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

**Skin**
Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion
Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Notes to physician
Hazards: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting. Treatment: No information available.

5. FIREFIGHTING MEASURES

Suitable extinguishing media
Water spray, Dry chemical, Carbon dioxide (CO2), Foam

Hazardous combustion products
Hydrocarbons, toxic fumes, carbon dioxide and carbon monoxide

Precautions for fire-fighting
Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes. Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.

NFPA Flammable and Combustible Liquids Classification
Flammable Liquid Class IC

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

Environmental precautions
Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for cleaning up
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).

Other information
Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapours/mists with a water spray jet.

7. HANDLING AND STORAGE

Handling
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Storage
Store in a cool, dry, ventilated area, away from incompatible substances. Keep containers closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>STYRENE</th>
<th>100-42-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>time weighted average</td>
</tr>
<tr>
<td>ACGIH</td>
<td>Short term exposure limit</td>
</tr>
<tr>
<td>NIOSH</td>
<td>Recommended exposure limit (REL):</td>
</tr>
<tr>
<td>NIOSH</td>
<td>Recommended exposure limit (REL):</td>
</tr>
<tr>
<td>NIOSH</td>
<td>Short term exposure limit</td>
</tr>
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</table>
**SAFETY DATA SHEET**

Maxguard™ WG-LE-5555 WHITE GELCOAT  
™ Trademark, Ashland or its subsidiaries, registered in various countries  
505615

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>NIOSH Short term exposure limit</th>
<th>OSHA Z2 time weighted average</th>
<th>OSHA Z2 Ceiling Limit Value:</th>
<th>OSHA Z2 Maximum concentration:</th>
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<tbody>
<tr>
<td>TITANIUM DIOXIDE (TiO2)</td>
<td>13463-67-7</td>
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<td></td>
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<tr>
<td>ACGIH time weighted average</td>
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<tr>
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<td></td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>TALC</td>
<td>14807-96-6</td>
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<td>ACGIH time weighted average</td>
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<td>Respirable fraction.</td>
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<tr>
<td>METHYLMETHACRYLATE</td>
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<tr>
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<tr>
<td>OSHA Z1 Permissible exposure limit</td>
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<td>410 mg/m3</td>
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<tr>
<td>ACGIH NIC time weighted average</td>
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<tr>
<td>ACGIH NIC Short Term Exposure Limit (STEL):</td>
<td></td>
<td>100 ppm</td>
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<tr>
<td>SILICA AMORPHOUS (SiO2)</td>
<td>7631-86-9</td>
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</tr>
<tr>
<td>NIOSH Recommended exposure limit (REL):</td>
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<td>6 mg/m3</td>
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<td>6 mg/m3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Z3 time weighted average</td>
<td></td>
<td>0.8 mg/m3</td>
<td></td>
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</tr>
</tbody>
</table>

**General advice**

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

**Exposure controls**

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Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

**Eye protection**
Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

**Skin and body protection**
Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves (consult your safety equipment supplier). Discard gloves that show tears, pinholes, or signs of wear.

**Respiratory protection**
A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boiling point/boiling range</strong></td>
<td>212.9 °F / 100.5 °C @ 101.32 kPa</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>79.0 °F / 26.1 °C Seta closed cup</td>
</tr>
<tr>
<td><strong>Lower explosion limit/Upper explosion limit</strong></td>
<td>1.1 %(V) / 12.5 %(V)</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>5.132 kPa @ 77 °F / 25 °C</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>1.078 g/cm³ @ 77 °F / 25 °C</td>
</tr>
<tr>
<td><strong>Water solubility</strong></td>
<td>insoluble</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

**Stability**
Stable under recommended storage conditions.

**Conditions to avoid**
Avoid heat, open flame, and prolonged storage at elevated temperatures.

**Incompatible products**
Acids, aluminum chloride, halogens, iron chloride, metal salts, Peroxides, strong alkalis, Strong oxidizing agents, alkalis, Strong acids, Amines, nitrates, UV light.
**Hazardous decomposition products**  
Hydrocarbons, toxic fumes, carbon dioxide and carbon monoxide

**Hazardous reactions**  
Product can undergo hazardous polymerization., Avoid exposure to excessive heat, peroxides and polymerization catalysts.

### 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Information on likely routes of exposure</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skin absorption</td>
</tr>
<tr>
<td></td>
<td>Skin contact</td>
</tr>
<tr>
<td></td>
<td>Eye Contact</td>
</tr>
<tr>
<td></td>
<td>Ingestion</td>
</tr>
</tbody>
</table>

**Product**

<table>
<thead>
<tr>
<th>Acute oral toxicity</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Acute inhalation toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>No data available</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>No data available</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Target Organ Systemic Toxicant**  
- Repeated exposure  
Target Organs: Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, mild, reversible kidney effects, effects on hearing, respiratory tract damage (nose, throat, and airways), testis damage, liver damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans:, mild effects on color vision, effects on hearing, respiratory tract damage (nose, throat, and airways), central nervous system effects, effects on lung function, nasal damage, kidney damage, Prolonged inhalation of cobalt dust, or metal dust, fume or mist containing cobalt may cause respiratory
illness., Overexposure to cobalt compounds has been shown to cause blood, thyroid and heart effects in man., testis damage, blood abnormalities

Aspiration toxicity : The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Components:

STYRENE:

Acute oral toxicity : LD50 Oral Rat: > 2,000 mg/kg

Acute inhalation toxicity :
- LC 50 Rat: 11.8 mg/l, 2770 ppm
- Exposure time: 4 h
- Test atmosphere: vapour

No observed adverse effect level Humans: 100 ppm
- Exposure time: 7 h
- Test atmosphere: vapour

Acute dermal toxicity : LD 50 Rat: > 2,000 mg/kg
- Method: OECD Test Guideline 402
- No adverse effect has been observed in acute dermal toxicity tests.

Respiratory or skin sensitisation : Species: Guinea pig
- Classification: Does not cause skin sensitisation.
- Result: negative

Species: Humans
- Classification: Does not cause respiratory sensitisation.
- Result: negative

STOT - single exposure : Assessment: May cause respiratory irritation.

Repeated dose toxicity :
- Human: 85 mg/m3
- Application Route: inhalation (vapour)

- Human: 615 mg/kg
Application Route: Skin contact

STOT - repeated exposure: Exposure routes: inhalation (vapour)
Target Organs: Auditory system
Assessment: Causes damage to organs through prolonged or repeated exposure.

Aspiration toxicity: May be fatal if swallowed and enters airways.

TITANIUM DIOXIDE (TiO2):
Acute oral toxicity: LD 50 Rat: > 24,000 mg/kg
Acute inhalation toxicity: LC 50 Rat: > 6,820 mg/m3
Exposure time: 4 h
Acute dermal toxicity: LD 50 Rabbit: > 10,000 mg/kg

ALUMINUM HYDROXIDE:
Acute oral toxicity: LD 50 Rat: > 5,000 mg/kg
LD50 Rat, female: > 2,000 mg/kg
Method: OECD Test Guideline 423
GLP: yes
No adverse effect has been observed in acute oral toxicity tests.

Respiratory or skin sensitisation: Test Method: Maximisation Test (GPMT)
Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.
Method: OECD Test Guideline 406
GLP: yes

METHYLMETHACRYLATE:
Acute oral toxicity: LD 50 Rat: 7,800 mg/kg
Acute inhalation toxicity: LC 50 Rat: 29.8 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Acute dermal toxicity: LD 50 Rabbit: > 5,000 mg/kg
Respiratory or skin sensitisation : Classification: May cause sensitization by skin contact.

STOT - single exposure : Assessment: May cause respiratory irritation.

**SILICA AMORPHOUS (SIO2):**

Acute oral toxicity : LD 50 Rat: > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : LC 50 Rat: > 2.08 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD 50 Rabbit: > 5,000 mg/kg

**SILICA COLLOIDAL AMORPHOUS:**

Acute oral toxicity : LD 50 Rat: > 5,000 mg/kg

Acute dermal toxicity : LD 50 Rabbit: > 2,000 mg/kg
Not classified as acutely toxic by dermal absorption under GHS.

**COBALT COMPOUNDS:**

Acute oral toxicity : LD 50 Rat: 6,171 mg/kg

**STYRENE:**

Acute oral toxicity : LD 50 Oral Rat: > 2,000 mg/kg

Acute inhalation toxicity : LC 50 Rat: 11.8 mg/l, 2770 ppm
Exposure time: 4 h
Test atmosphere: vapour

No observed adverse effect level Humans: 100 ppm
Exposure time: 7 h
Test atmosphere: vapour

Acute dermal toxicity : LD 50 Rat: > 2,000 mg/kg
Method: OECD Test Guideline 402
No adverse effect has been observed in acute dermal toxicity tests.

Respiratory or skin sensitisation:
Species: Guinea pig
Classification: Does not cause skin sensitisation.
Result: negative

Species: Humans
Classification: Does not cause respiratory sensitisation.
Result: negative

STOT - single exposure
Assessment: May cause respiratory irritation.

Repeated dose toxicity:
Human: 85 mg/m3
Application Route: inhalation (vapour)

Human: 615 mg/kg
Application Route: Skin contact

STOT - repeated exposure
Exposure routes: inhalation (vapour)
Target Organs: Auditory system
Assessment: Causes damage to organs through prolonged or repeated exposure.

Aspiration toxicity
May be fatal if swallowed and enters airways.

TITANIUM DIOXIDE (TIO2):
Acute oral toxicity: LD 50 Rat: > 24,000 mg/kg

Acute inhalation toxicity: LC 50 Rat: > 6,820 mg/m3
Exposure time: 4 h

Acute dermal toxicity: LD 50 Rabbit: > 10,000 mg/kg

ALUMINUM HYDROXIDE:
Acute oral toxicity: LD 50 Rat: > 5,000 mg/kg

LD50 Rat, female: > 2,000 mg/kg
Method: OECD Test Guideline 423
GLP: yes
No adverse effect has been observed in acute oral toxicity tests.

Respiratory or skin sensitisation : Test Method: Maximisation Test (GPMT)
Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.
Method: OECD Test Guideline 406
GLP: yes

METHYLMETHACRYLATE:
Acute oral toxicity : LD 50 Rat: 7,800 mg/kg

Acute inhalation toxicity : LC 50 Rat: 29.8 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD 50 Rabbit: > 5,000 mg/kg

Respiratory or skin sensitisation : Classification: May cause sensitization by skin contact.

STOT - single exposure : Assessment: May cause respiratory irritation.

SILICA AMORPHOUS (SIO2):
Acute oral toxicity : LD 50 Rat: > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : LC 50 Rat: > 2.08 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD 50 Rabbit: > 5,000 mg/kg

SILICA COLLOIDAL AMORPHOUS:
Acute oral toxicity : LD 50 Rat: > 5,000 mg/kg

Acute dermal toxicity : LD 50 Rabbit: > 2,000 mg/kg
Not classified as acutely toxic by dermal absorption under GHS.

**XYLENE:**

- **Acute oral toxicity**: LD 50 Rat: 3,523 - 8,600 mg/kg
- **Acute inhalation toxicity**: LC 50 Rat: 6700 ppm
  - Exposure time: 4 h
  - Test atmosphere: vapour
- **Acute dermal toxicity**: LD 50 Rabbit: 1,700 mg/kg
- **STOT - single exposure**: Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.
- **Aspiration toxicity**: May be fatal if swallowed and enters airways.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

No data available

**Components:**

**STYRENE:**

- **Toxicity to fish**: LC 50 (Pimephales promelas (fathead minnow)): 4.02 mg/l
  - Exposure time: 96 h
- **Toxicity to daphnia and other aquatic invertebrates**: EC 50 (Water flea (Daphnia magna)): 4.7 mg/l
  - Exposure time: 48 h
- **Toxicity to algae**: ErC50 (Pseudokirchneriella subcapitata (green algae)): 4.9 mg/l
  - Exposure time: 72 h
- **Toxicity to bacteria**: EC 50 (activated sludge): ca. 500 mg/l
  - Exposure time: 0.5 h
- **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**: NOEC: 1.01 mg/l
  - Exposure time: 21 d
  - Species: Water flea (Daphnia magna)
Toxicity to soil dwelling organisms
NOEC: 34 mg/kg
Exposure duration: 14 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 207

**TITANIUM DIOXIDE (TIO2):**
Toxicity to daphnia and other aquatic invertebrates
EC 50 (Water flea (Daphnia magna)): > 1,000 mg/l
Exposure time: 48 h
Test Method: static test

**METHYLMETHACRYLATE:**
Toxicity to fish
LC 50 (Fathead minnow (Pimephales promelas)): 130 mg/l
Exposure time: 96 h
Method: Static

LC 50 (Oncorhynchus mykiss (rainbow trout)): > 79 mg/l
Exposure time: 96 h
Test Method: flow-through test

Toxicity to daphnia and other aquatic invertebrates
EC 50 (Water flea (Daphnia magna)): 69 mg/l
Exposure time: 48 h
Test Method: flow-through test

Toxicity to algae
EC 50 (Pseudokirchneriella subcapitata (algae)): > 110 mg/l
Exposure time: 72 h
Test Method: static test

**SILICA AMORPHOUS (SIO2):**
Toxicity to fish
LC 50 (Danio rerio (zebra fish)): > 10,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
GLP: yes

**SILICA COLLOIDAL AMORPHOUS:**
Toxicity to fish
LC50 (Brachydanio rerio (zebrafish)): > 10,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

**COBALT COMPOUNDS:**
Ecotoxicology Assessment
Chronic aquatic toxicity: May cause long lasting harmful effects to aquatic life.

**STYRENE:**

Toxicity to fish:
- LC 50 (Pimephales promelas (fathead minnow)): 4.02 mg/l
  - Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
- EC 50 (Water flea (Daphnia magna)): 4.7 mg/l
  - Exposure time: 48 h

Toxicity to algae:
- ErC50 (Pseudokirchneriella subcapitata (green algae)): 4.9 mg/l
  - Exposure time: 72 h

Toxicity to bacteria:
- EC 50 (activated sludge): ca. 500 mg/l
  - Exposure time: 0.5 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOEC: 1.01 mg/l
  - Exposure time: 21 d
  - Species: Water flea (Daphnia magna)

Toxicity to soil dwelling organisms:
- NOEC: 34 mg/kg
  - Exposure duration: 14 d
  - Species: Eisenia fetida (earthworms)
  - Method: OECD Test Guideline 207

**TITANIUM DIOXIDE (TIO2):**

Toxicity to daphnia and other aquatic invertebrates:
- EC 50 (Water flea (Daphnia magna)): > 1,000 mg/l
  - Exposure time: 48 h
  - Test Method: static test

**METHYLMETHACRYLATE:**

Toxicity to fish:
- LC 50 (Fathead minnow (Pimephales promelas)): 130 mg/l
  - Exposure time: 96 h
  - Method: Static

- LC 50 (Oncorhynchus mykiss (rainbow trout)): > 79 mg/l
  - Exposure time: 96 h
  - Test Method: flow-through test

Toxicity to daphnia and other aquatic invertebrates:
- EC 50 (Water flea (Daphnia magna)): 69 mg/l
  - Exposure time: 48 h
  - Test Method: flow-through test

Toxicity to algae:
- EC 50 (Pseudokirchneriella subcapitata (aglae)): > 110 mg/l
Exposure time: 72 h  
Test Method: static test 

**SILICA AMORPHOUS (SIO2):**
Toxicity to fish : LC 50 (Danio rerio (zebra fish)): > 10,000 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
GLP: yes

**SILICA COLLOIDAL AMORPHOUS:**
Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 10,000 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

**XYLENE:**
Toxicity to fish : LC 50 (Fathead minnow (Pimephales promelas)): 23.53 - 29.97 mg/l  
Exposure time: 96 h  
Test Method: static test

Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (Daphnia magna)): > 100 - < 1,000 mg/l  
Exposure time: 24 h  
Test Method: static test

**Persistence and degradability**

**Product:**  
No data available

**Components:**

**STYRENE:**
Biodegradability : Biodegradation: > 60 %  
Exposure time: 10 d  
Readily biodegradable

**METHYLMETHACRYLATE:**
Biodegradability : Biodegradation: 94.3 %
Exposure time: 14 d
Readily biodegradable

SILICA COLLOIDAL AMORPHOUS:
Biodegradability : Result: The methods for determining biodegradability are not applicable to inorganic substances.

STYRENE:
Biodegradability : Biodegradation: > 60 %
Exposure time: 10 d
Readily biodegradable

METHYL METHACRYLATE:
Biodegradability : Biodegradation: 94.3 %
Exposure time: 14 d
Readily biodegradable

SILICA COLLOIDAL AMORPHOUS:
Biodegradability : Result: The methods for determining biodegradability are not applicable to inorganic substances.

XYLENE:
Physico-chemical removability : The product evaporates readily.

Bioaccumulative potential

Product:
No data available

Components:

STYRENE:
Bioaccumulation : Bioconcentration factor (BCF): < 100
Partition coefficient: n-octanol/water : log Pow: 2.96 (25 °C)

METHYL METHACRYLATE:
Partition coefficient: n-octanol/water : log Pow: 1.38

**STYRENE:**
Bioaccumulation : Bioconcentration factor (BCF): < 100
Partition coefficient: n-octanol/water : log Pow: 2.96 (25 °C)

**METHYLMETHACRYLATE:**
Partition coefficient: n-octanol/water : log Pow: 1.38

**XYLENE:**
Partition coefficient: n-octanol/water : log Pow: 3.16

**Mobility in soil**
**Product:**
No data available

**Components:**

**STYRENE:**
Surface tension : 32.3 mN/m
Distribution among environmental compartments : Koc: 352

**METHYLMETHACRYLATE:**
Surface tension : 28 mN/m

**SILICA AMORPHOUS (SIO2):**
Surface tension : 5.2 mN/m

**STYRENE:**
Surface tension : 32.3 mN/m
Distribution among environmental compartments : Koc: 352
METHYLMETHACRYLATE:
Surface tension : 28 mN/m

SILICA AMORPHOUS (SIO2):
Surface tension : 5.2 mN/m

13. DISPOSAL CONSIDERATIONS
Waste disposal methods
Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>REGULATION</th>
<th>ID NUMBER</th>
<th>PROPER SHIPPING NAME</th>
<th>HAZARD CLASS</th>
<th>SUBSIDIARY HAZARDS</th>
<th>PACKING GROUP</th>
<th>MARINE POLLUTANT / LTD. QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT - ROAD</td>
<td>UN 1866</td>
<td>Resin solution</td>
<td>3</td>
<td></td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - RAIL</td>
<td>UN 1866</td>
<td>Resin solution</td>
<td>3</td>
<td></td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - INLAND WATERWAYS</td>
<td>UN 1866</td>
<td>Resin solution</td>
<td>3</td>
<td></td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>TRANSPORT CANADA - ROAD</td>
<td>UN 1866</td>
<td>RESIN SOLUTION</td>
<td>3</td>
<td></td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>TRANSPORT CANADA - RAIL</td>
<td>UN 1866</td>
<td>RESIN SOLUTION</td>
<td>3</td>
<td></td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>TRANSPORT CANADA - INLAND WATERWAYS</td>
<td>UN 1866</td>
<td>RESIN SOLUTION</td>
<td>3</td>
<td></td>
<td>III</td>
<td></td>
</tr>
</tbody>
</table>
INTERNATIONAL MARITIME DANGEROUS GOODS

| UN  | Description                 | UN | DANGEROUS CARGO CLASS
|-----|-----------------------------|----|------------------------
| 1866 | Resin Solution              | 3  | III

MARINE POLLUTANT: (ALIPHATIC PETROLEUM DISTILLATES, ALIPHATIC PETROLEUM DISTILLATES)

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

<table>
<thead>
<tr>
<th>UN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1866</td>
<td>Resin solution</td>
</tr>
</tbody>
</table>

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

<table>
<thead>
<tr>
<th>UN</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1866</td>
<td>Resin solution</td>
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</tbody>
</table>

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

<table>
<thead>
<tr>
<th>UN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1866</td>
<td>Resina, soluciones de</td>
</tr>
</tbody>
</table>

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

1,3, BUTADIENE
LEAD
ETHYLENE OXIDE
ACETALDEHYDE
1,4-DIOXANE
FORMALDEHYDE
BENZENE
QUARTZ (SIO2)
ETHYL BENZENE
SAFETY DATA SHEET

Maxguard™ WG-LE-5555 WHITE GELCOAT
™ Trademark, Ashland or its subsidiaries, registered in various countries
505615

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Components</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3, BUTADIENE</td>
<td></td>
</tr>
<tr>
<td>LEAD</td>
<td></td>
</tr>
<tr>
<td>TOLUENE</td>
<td></td>
</tr>
<tr>
<td>ETHYLENE GLYCOL</td>
<td></td>
</tr>
<tr>
<td>MONOMETHYL ETHER</td>
<td></td>
</tr>
<tr>
<td>ETHYLENE OXIDE</td>
<td></td>
</tr>
<tr>
<td>METHYL CHLORIDE</td>
<td></td>
</tr>
<tr>
<td>BENZENE</td>
<td></td>
</tr>
</tbody>
</table>

SARA Hazard Classification
SARA 311/312 Classification
Reactivity Hazard
Fire Hazard
Acute Health Hazard
Chronic Health Hazard

SARA 313 Component(s)

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>STYRENE</td>
<td>25.27%</td>
</tr>
<tr>
<td>METHYLMETHACRYLATE</td>
<td>3.00%</td>
</tr>
<tr>
<td>COBALT 2-ETHYLHEXANOATE</td>
<td>0.09%</td>
</tr>
<tr>
<td>COBALT NEODECANOATE</td>
<td>0.02%</td>
</tr>
<tr>
<td>COBALT HYDROXIDE</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Notification status

<table>
<thead>
<tr>
<th>Act</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>US. Toxic Substances Control Act</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>Australia. Industrial Chemical (Notification and Assessment) Act</td>
<td>n (Negative listing)</td>
</tr>
<tr>
<td>Japan. ENCS - Existing and New Chemical Substances Inventory</td>
<td>n (Negative listing)</td>
</tr>
<tr>
<td>Korea. Toxic Chemical Control Law (TCCL) List</td>
<td>n (Negative listing)</td>
</tr>
<tr>
<td>Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act</td>
<td>n (Negative listing)</td>
</tr>
<tr>
<td>China. Inventory of Existing Chemical Substances</td>
<td>y (positive listing)</td>
</tr>
</tbody>
</table>

Reportable quantity - Product

<table>
<thead>
<tr>
<th>Substances</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>US. EPA CERCLA Hazardous Substances (40 CFR 302)</td>
<td>3955 lbs</td>
</tr>
</tbody>
</table>

Reportable quantity-Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>STYRENE</td>
<td>100-42-5</td>
<td>1000 lbs</td>
</tr>
</tbody>
</table>

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16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet:
- ACGIH: American Conference of Industrial Hygienists
- BEI: Biological Exposure Index
- CAS: Chemical Abstracts Service (Division of the American Chemical Society).
- CMR: Carcinogenic, Mutagenic or Toxic for Reproduction
- FG: Food grade
- GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
- H-statement: Hazard Statement
- IATA: International Air Transport Association.
- IATA-DGR: Dangerous Goods Regulation by the “International Air Transport Association” (IATA).
- ICAO: International Civil Aviation Organization
- ICAO-TI (ICAO): Technical Instructions by the “International Civil Aviation Organization”
- IMDG: International Maritime Code for Dangerous Goods
- ISO: International Organization for Standardization
- logPow: octanol-water partition coefficient
- LCxx: Lethal Concentration, for xx percent of test population
- LDxx: Lethal Dose, for xx percent of test population.
- ICxx: Inhibitory Concentration for xx of a substance
- Ecxx: Effective Concentration of xx
- N.O.S.: Not Otherwise Specified
- OECD: Organization for Economic Co-operation and Development
- OEL: Occupational Exposure Limit
- P-Statement: Precautionary Statement
- PBT: Persistent, Bioaccumulative and Toxic
- PPE: Personal Protective Equipment
- STEL: Short-term exposure limit
- STOT: Specific Target Organ Toxicity
- TLV: Threshold Limit Value
- TWA: Time-weighted average
- vPvB: Very Persistent and Very Bioaccumulative
- WEL: Workplace Exposure Level

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
Maxguard™ WG-LE-5555 WHITE GELCOAT
™ Trademark, Ashland or its subsidiaries, registered in various countries
505615

DOT : Department of Transportation
FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC : Hazardous Materials Information Review Commission
HMIS : Hazardous Materials Identification System
NFPA : National Fire Protection Association
NIOSH : National Institute for Occupational Safety and Health
OSHA : Occupational Safety and Health Administration
PMRA : Health Canada Pest Management Regulatory Agency
RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System