SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Gold Shield® Composite Materials

MSDS Number : 000000013487

Product Use Description : Composite for ballistic and structural applications.

Company : Honeywell International, Inc.
           101 Columbia Road
           Morristown, NJ 07962-1057

For more information call : 1-800-919-0943
                           1-973-455-3941
                           (Monday-Friday, 9:00am-5:00pm)

In case of emergency call : Medical (PROSAR): 1-800-498-5701 or +1-651-523-0309
                           Transportation (CHEMTREC): 1-800-424-9300 or
                           +1-703-527-3887
                           : (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Form : sheets
Color : gold
Odor : odourless

Hazard Summary : Can release irritating and/or toxic vapors at elevated processing temperatures or if involved in a fire.

Potential Health Effects

Skin : Contact with hot product will cause thermal burns. May cause mechanical irritation.
Eyes: Elevated processing temperatures may generate fumes and vapors which may cause irritation. May cause mechanical irritation.

Ingestion: Unlikely route of exposure. No adverse health effects are expected.

Inhalation: Unlikely route of exposure. Elevated processing temperatures may generate fumes and vapors which may cause irritation.

Chronic Exposure: None known.

Aggravated Medical Condition: None known.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical nature: Article</th>
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<tr>
<td></td>
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<tr>
<td>Resin coated aramid fiber</td>
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</table>

Note: No ingredients are hazardous according to OHSA criteria.

SECTION 4. FIRST AID MEASURES

Inhalation: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Get medical attention if irritation develops and persists.

Skin contact: Wash off with soap and water. In case of burns apply cold water until pain subsides then seek medical advice.

Eye contact: Immediately flush eye(s) with plenty of water. Call a physician if
irritation develops or persists.

Ingestion: Unlikely route of exposure.

Notes to physician:
Treatment: Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:
- Water
- Dry chemical
- Carbon dioxide (CO2)
- Foam

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards during firefighting:
In case of fire hazardous decomposition products may be produced such as:
- Hydrocarbons
- Carbon monoxide
- Carbon dioxide (CO2)
- Aldehydes
- Ketones
- Alcohols

Special protective equipment for firefighters:
Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Wear self-contained breathing apparatus and protective suit.

Environmental precautions:
No special environmental precautions required.

Methods for cleaning up:
Sweep up or vacuum up spillage and collect in suitable container for disposal.
SECTION 7. HANDLING AND STORAGE

**Handling**

Handling: Wear personal protective equipment. For personal protection see section 8.

**Storage**

Storage temperature: \(\leq 66 \, ^\circ\text{C} \, (\leq 151 \, ^\circ\text{F})\)

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering measures**

General room ventilation is adequate for storage and handling. Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapors.

**Eye protection**

Safety glasses with side-shields

**Hand protection**

When handling hot material, use heat resistant gloves. Protect against cuts from sharp sheet edges.

**Skin and body protection**

Wear heat protective clothing for handling hot material.

**Respiratory protection**

No personal respiratory protective equipment normally required. Breathing apparatus only if exposed to thermal processing fumes and vapors.

**Exposure Guidelines**

Contains no substances with occupational exposure limit values.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state**

sheets

**Color**

gold

**Odor**

odourless

**pH**

Note: not applicable
Melting point/freezing point : Note: no data available
Boiling point/boiling range : Note: not applicable
Flash point : Note: no data available

Lower explosion limit : Note: not applicable
Upper explosion limit : Note: not applicable
Vapor pressure : Note: not applicable
Vapor density : Note: not applicable
Density : Note: no data available
Water solubility : Note: insoluble

Ignition temperature : Note: no data available
Decomposition temperature : Note: Thermal decomposition products may include a complex mixture of organic compounds, including, but not limited to: Hydrocarbons, Carbon monoxide, Carbon dioxide (CO2), Aldehydes, Ketones, Alcohols

SECTION 10. STABILITY AND REACTIVITY

Chemical stability : Stable
### Possibility of hazardous reactions
- Hazardous polymerisation does not occur.
- Curing of the composite resin may begin to occur at temperatures of 82°C (180°F) or higher.

### Conditions to avoid
- Avoid exposure to open flame or temperatures exceeding recommended processing conditions.

### Incompatible materials to avoid
- Strong oxidizing agents
- Strong mineral acids

## SECTION 11. TOXICOLOGICAL INFORMATION

Further information: Note: There is no data available for this product.

## SECTION 12. ECOLOGICAL INFORMATION

Further information on ecology:
Additional ecological information: We have no quantitative data concerning the ecological effects of this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods: Observe all Federal, State, and Local Environmental regulations.

## SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>DOT</th>
<th>Not dangerous goods</th>
</tr>
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<tbody>
<tr>
<td>TDG</td>
<td>Not dangerous goods</td>
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</table>
IATA Not dangerous goods
IMDG Not dangerous goods

SECTION 15. REGULATORY INFORMATION

Inventories

US. Toxic Substances Control Act: The product is an article and is exempt from Inventory listing requirements.

Australia. Industrial Chemical (Notification and Assessment) Act: The product is an article and is exempt from Inventory listing requirements.

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL): The product is an article and is exempt from Inventory listing requirements.

Japan. Kashin-Hou Law List: The product is an article and is exempt from Inventory listing requirements.

Korea. Existing Chemicals Inventory (KECI): The product is an article and is exempt from Inventory listing requirements.

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act: The product is an article and is exempt from Inventory listing requirements.

China. Inventory of Existing Chemical Substances: The product is an article and is exempt from Inventory listing requirements.

NZIOC - New Zealand: The product is an article and is exempt from Inventory listing requirements.

National regulatory information

SARA 302 Components: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold
(De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**: No SARA Hazards

**California Prop. 65**: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**WHMIS Classification**: As an article the product does not need to be labelled according to the CPR criteria (WHMIS).

### SECTION 16. OTHER INFORMATION

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<thead>
<tr>
<th></th>
<th>HMIS III</th>
<th>NFPA</th>
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<tbody>
<tr>
<td>Health hazard</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Flammability</td>
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<td>0</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Instability</td>
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<td>0</td>
</tr>
</tbody>
</table>

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.
Changes since the last version are highlighted in the margin. This version replaces all previous versions.
Previous Issue Date: 02/06/2009
Prepared by: Honeywell Performance Materials and Technologies  Product Stewardship Group