

# SAFETY DATA SHEET

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## 1. IDENTIFICATION

<b>Product Description</b>	<b>RAL 5023</b>
<b>Trade Name</b>	TGIC
<b>Product #</b>	RAL5023
<b>Supplier</b>	Columbia Coatings 1173 Industrial Park Rd Columbia, TN 38401
<b>Contact</b>	(931) 388-7730 Phone (931) 388-5573 Fax

## 2. HAZARD IDENTIFICATION

Product is a mixture of hazardous and non-hazardous ingredients compounded in a polymer.

<b>*Information pertaining to particular danger for man and environment.</b> <i>-Harmful by inhalation and/or if swallowed.</i>	
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**\*Classification System**  
*-Classification was made according to the latest editions of international substances lists, and expanded upon from company literature data.*

NFPA Ratings	Scale 0-4
Health	1
Fire	1
Reactivity	0

HMIS Ratings	Scale 0-4
Health	1
Fire	1
Reactivity	0

## 3. Composition/information on ingredients

Hazardous Components	Case#	TLV-ACGIH	PEL-OSHA	CONCENTRATE %
Cobalt Compounds	1345-16-0	3.5 mg/m <sup>3</sup>	3.5 mg/m <sup>3</sup>	5-10
Titanium Dioxide	13463-67-7	10 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>	
Barium Sulfate	7727-43-7	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	

#### 4. FIRST AID MEASURES

<b>*After Inhalation</b> <i>-Supply fresh air and seek medical attention.</i>
<b>*After Skin Contact</b> <i>-Generally the product does not irritate the skin but water and soap can be used for rinsing.</i>
<b>*After Eye Contact</b> <i>-Rinse opened eye for several minutes under clean running water.</i>
<b>*After Swallowing</b> <i>-Rinse mouth out and then drink water. If symptoms persist, seek medical attention.</i>

#### 5. FIRE FIGHTING MEASURES

<b>*Suitable Extinguishing Agents</b> <i>-Use CO2, extinguishing powder or water spray. Fight larger fires with water spray, alcohol, or resistant foam.</i>
<b>*Firefighting Instructions</b> <i>-Use fully protective equipment with self-contained breathing apparatus.</i>
<b>*Explosion</b> <i>-Avoid generating dust; fine dust dispersed in the air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.</i>
<b>*Personal Protective Equipment</b> <i>-Wear self-contained respiratory device.</i>

#### 6. ACCIDENTAL RELEASE MEASURES

<b>*Personal Related Safety Precautions</b> <i>-Ensure adequate ventilation</i>
<b>*Measure for Environmental Protection</b> <i>-Do not allow to enter sewer/surface or ground water.</i>
<b>*Measure for Cleaning and Collecting</b> <i>-Pick up mechanically. Dispose contaminated material as waste according to item 13.</i>

#### 7. HANDLING AND STORAGE

<b>*Information For Safe Handling</b> <i>-Prevent formation of dust and ensure good ventilation/exhaustion at the workplace.</i>
<b>*Information About Protection Against Explosions and Fires</b> <i>-Dust can combine with air in suspended form when applying and can be an explosive mixture.</i>
<b>*Requirements To Be Met By Storerooms and Receptacles</b> <i>-Store in a cool, dry place in a tightly closed container. Storage temperatures not to exceed 25C/77F to ensure product quality. Shelf life of the product at that temperature is up to 2 years, after that, the performance of the products will deteriorate. Protect from heat and direct sunlight. Protect from humidity and water.</i>
<b>*Information About Storage In Once Common Storage Facility.</b> <i>-Not Required</i>

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

<b>*Additional Information About Design of Technical Systems</b> <i>-No Data: See item 7.</i>	
<b>*Components with Limited Values That May Require Monitoring at the Workplace.</b> <i>-See product ingredients.</i>	
<b>*Personal Protective Equipment</b> <i>-Keep away from foods, beverages, animals and feed. Wash hands before breaks and at the end of work. The usual precautionary measures for handling chemicals should be followed.</i>	
<b>Protective Equipment for Inhalation</b>	<i>It is recommended to use MSHA approved respirator when handling powders. Powders are considered nuisance dust.</i>
<b>Hygienic Measures for Skin Contact</b>	<i>Avoid skin contact; use long sleeve shirts and impermeable gloves at a minimum when handling powders. TYVEK full body suits or equivalent are recommended for heavy exposure. Be sure to launder contaminated clothing before reuse. Wash skin with mild soap and water if contact occurs. If symptoms continue seek medical attention.</i>
<b>Eye Protection</b>	<i>Require the use of safety goggles with side shields. Powder particles can be abrasive on the cornea. In case of eye contact, flush with plenty of fresh water. If irritation develops or persists, seek medical attention.</i>

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical</b>	
<b>Form:</b>	<b>Solid, finely divided powder</b>
<b>Color:</b>	<b>According to product specs</b>
<b>Odor:</b>	<b>Nearly odorless</b>
<b>Chemical</b>	
<b>Specific Gravity:</b>	<b>Approx. 1.54</b>
<b>Coverage:</b>	<b>125 sq. ft / lb</b>
<b>Flash Point:</b>	<b>&gt; 300°C</b>
<b>Hardness:</b>	<b>H - 2H (ASTM D3363)</b>
<b>Danger of Explosion:</b>	<b>Dust at sufficient concentrations can form explosive mixtures with air.</b>
<b>Density:</b>	<b>1.2 - 1.9 g/cm<sup>3</sup></b>
<b>Solubility with Water:</b>	<b>Insoluble</b>
<b>Solvent Content:</b>	<b>n/a</b>
<b>Salt Spray:</b>	<b>1000 hrs less than 1/16" in creepage over B-1000 panels</b>
<b>Film Thickness:</b>	<b>2.5 - 3.5 mils</b>
<b>Humidity:</b>	<b>1000 hrs no blistering</b>
<b>Flexibility:</b>	<b>3/16" (ASTM D522)</b>
<b>Impact:</b>	<b>160 in-lb direct &amp; reverse</b>
<b>Cross Hatch Adhesion:</b>	<b>5B (ASTM D3359)</b>

**10. STABILITY AND REACTIVITY**

<p><b>*Product Stability</b>  <i>-No decomposition if used according to specifications.</i></p>
<p><b>*Thermal Decomposition/Conditions To Be Avoided</b>  <i>-Decomposition at high temperatures may yield Carbon Dioxide, Carbon Monoxide, Nitrous Oxide and other hazardous gases.</i></p>
<p><b>*Dangerous Reactions</b>  <i>-N/A</i></p>
<p><b>*Dangerous Products of Decomposition</b>  <i>-N/A</i></p>

**11. TOXICOLOGICAL INFORMATION**

<p><b>*Primary Irritant Effect</b>  <i>-On the skin – Powder can be irritation through rubbing action, also has a drying effect.                  -In the eye – Powder can be irritating through rubbing, can cause abrasion on the cornea.</i></p>
<p><b>*Sensitization</b>  <i>-Sensitization possible through skin contact.</i></p>
<p><b>*Additional Toxicological Information</b>  <i>-The product shows the following danger according to internally approved calculation methods for preparations: Harmful!</i></p>

**12. ECOLOGICAL INFORMATION**

<p><b>*General Notes</b>  <i>-Water hazard class 1 (Self-Assessment): Slightly hazardous for water.</i></p>
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**13. DISPOSAL INFORMATION**

<p><b>*Packaging</b>  <i>-Disposal must be made according to official regulations.</i></p>
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**14. TRANSPORTATION INFORMATION**

<p><b>*DOT Regulations</b>  <i>-Non-Hazardous / Non-Regulated</i></p>
<p><b>*Maritime Transportation IMDG</b>  <i>-Non-Polluting</i></p>

**15. REGULATIONS**

<p><b>*Product Related Hazard Information</b>  <i>-The product has been classified and marked in accordance with directives on hazardous materials.</i></p>
<p><b>*Hazard Symbols</b>  <i>-Harmful</i></p>
<p><b>*Hazard-Determining Components of Labeling</b>  <i>-TGIC</i></p>
<p><b>*Risk Phrases</b>  <i>-Harmful by inhalation and if swallowed.                  -May cause sensitization by skin contact.</i></p>
<p><b>*Safety Phrases</b>  <i>-Keep out of reach of children.                  -Keep container dry.                  -Keep container in a well-ventilated area.                  -Keep away from food, drink and animals/feed.                  -Do not breath gas/fumes/vapors/spray.                  -If swallowed, seek medical advice immediately and show this label.</i></p>

**16. OTHER INFORMATION**

<p><b>THIS INFORMATION IS BASED ON OUR PRESENT KNOWLEDGE. HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE FOR ANY SPECIFIC PRODUCT FEATURES AND SHALL NOT ESTABLISH A LEGALLY VALID CONTRACTUAL RELATIONSHIP.</b></p>
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