

## XI'AN FUNCTION MATERIAL GROUP CO., LTD Material Safety Data Sheet Chromium Oxide

1. Product and Company Identification		
Trade Name: Chemical Formula:	Chromium oxide Cr <sub>2</sub> O <sub>3</sub>	
Manufacturer/Supplier:	XI'AN FUNCTION MATERIAL GROUP CO., LTD	
Street:	No. 69, Gazelle Valley, High-Tech Zone	
City:	XI'AN	
State:	Shaanxi	
Zip Code:	710077	
Country:	China	
Tel #:	+86-29-88993870/+86-13519132051	
	2. Hazards Identification	
Signal Word:	Warning	
Hazard Statements:	H302+H332: Harmful if swallowed or if inhaled	
	H317: May cause an allergic skin reaction	
Precautionary Statements:	<ul> <li>P261 Avoid breathing dust/fume/gas/mist/vapours/spray.</li> <li>P280: Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell</li> <li>P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing</li> <li>P501: Dispose of contents/container in accordance with local/regional/national/international regulations</li> </ul>	
HMIS Health Ratings (0-4):		
Health:	2	
Flammability: Physical:	0 1	
	3. Composition	
Chemical Family:	Ceramic	
Additional Names:	Chromium(III) oxide, Chromium sesquioxide, Chromia, Chrome green, Eskolaite	
Chromium oxide (Cr <sub>2</sub> O <sub>3</sub> ):		
Percentage:	100 wt%	
	1308-38-9	
CAS #: EC #:	215-160-9	

	4. First Aid Procedures
General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:	Seek Medical Attention.
Skin:	Wash affected area with mild soap and water. Remove any
P.	contaminated clothing.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
	5. Firefighting Measures
Flammability:	Non-flammable
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for
	surrounding material and type of fire.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective
	clothing to prevent contact with skin and eyes. See section 10 for decomposition products.
	6. Accidental Release Measures
If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in
	special protection information. Isolate spill area and provide
	ventilation. Vacuum up spill using a high efficiency particulate
	absolute (HEPA) air filter and place in a closed container for disposa
	Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.
	7. Handling and Storage
Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from
Storage Conditions.	
	materials and conditions listed in section 10.
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Work/Hygienic Maintenance:	materials and conditions listed in section 10. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
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Work/Hygienic Maintenance: Ventilation:	<ul><li>materials and conditions listed in section 10.</li><li>Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.</li><li>Provide sufficient ventilation to maintain concentration at or below</li></ul>
Work/Hygienic Maintenance: Ventilation: 8. E Permissible Exposure Limits:	materials and conditions listed in section 10. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air. Provide sufficient ventilation to maintain concentration at or below threshold limit.
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Work/Hygienic Maintenance: Ventilation: 8. E Permissible Exposure Limits: Threshold Limit Value: Special Equipment:	materials and conditions listed in section 10. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air. Provide sufficient ventilation to maintain concentration at or below threshold limit. xposure Controls and Personal Protection 0.5 mg/m <sup>3</sup> as Cr, long-term value 0.5 mg/m <sup>3</sup> as Cr, long-term value None
Work/Hygienic Maintenance: Ventilation: 8. E Permissible Exposure Limits: Threshold Limit Value:	<ul> <li>materials and conditions listed in section 10.</li> <li>Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.</li> <li>Provide sufficient ventilation to maintain concentration at or below threshold limit.</li> </ul> Exposure Controls and Personal Protection <ul> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>None</li> <li>Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a</li> </ul>
Work/Hygienic Maintenance: Ventilation: 8. E Permissible Exposure Limits: Threshold Limit Value: Special Equipment:	<ul> <li>materials and conditions listed in section 10.</li> <li>Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.</li> <li>Provide sufficient ventilation to maintain concentration at or below threshold limit.</li> </ul> Exposure Controls and Personal Protection <ul> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>None</li> <li>Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed.</li></ul>
Work/Hygienic Maintenance: Ventilation: 8. E Permissible Exposure Limits: Threshold Limit Value: Special Equipment:	<ul> <li>materials and conditions listed in section 10.</li> <li>Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.</li> <li>Provide sufficient ventilation to maintain concentration at or below threshold limit.</li> <li>Exposure Controls and Personal Protection</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>None</li> <li>Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use</li> </ul>
Work/Hygienic Maintenance: Ventilation: 8. E Permissible Exposure Limits: Threshold Limit Value: Special Equipment:	<ul> <li>materials and conditions listed in section 10.</li> <li>Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.</li> <li>Provide sufficient ventilation to maintain concentration at or below threshold limit.</li> <li>Exposure Controls and Personal Protection</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>None</li> <li>Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government</li> </ul>
Work/Hygienic Maintenance: Ventilation: 8. E Permissible Exposure Limits: Threshold Limit Value: Special Equipment: Respiratory Protection:	<ul> <li>materials and conditions listed in section 10.</li> <li>Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.</li> <li>Provide sufficient ventilation to maintain concentration at or below threshold limit.</li> <li>Exposure Controls and Personal Protection</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>None</li> <li>Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.</li> </ul>
Work/Hygienic Maintenance: Ventilation: 8. E Permissible Exposure Limits: Threshold Limit Value: Special Equipment: Respiratory Protection: Protective Gloves:	<ul> <li>materials and conditions listed in section 10.</li> <li>Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.</li> <li>Provide sufficient ventilation to maintain concentration at or below threshold limit.</li> <li>Exposure Controls and Personal Protection</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>None</li> <li>Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.</li> <li>Rubber gloves</li> </ul>
Work/Hygienic Maintenance: Ventilation: 8. E Permissible Exposure Limits: Threshold Limit Value: Special Equipment:	<ul> <li>materials and conditions listed in section 10.</li> <li>Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.</li> <li>Provide sufficient ventilation to maintain concentration at or below threshold limit.</li> <li>Exposure Controls and Personal Protection</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>0.5 mg/m<sup>3</sup> as Cr, long-term value</li> <li>None</li> <li>Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.</li> </ul>

9. Physical and Chemical Characteristics			
Color	Pale to dark green		
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts		
Odor:	Odorless		
Water Solubility:	Insoluble		
Boiling Point:	3000 °C		
Melting Point:	2435 °C		
Flash Point:	N/A		
Autoignition Temperature:	N/A		
Density:	5.22 g/cc		
Molecular weight:	151.99 g/mol		
	10. Reactivity		
Stability:	Stable under recommended storage conditions		
Reacts With:	Oxidizing agents		
Incompatible Conditions:	None		
Hazardous Decomposition Products:	Metal oxide fume		
1	11. Toxicological Information		
Potential Health Effects:			
Eyes:	May cause irritation		
Skin:	May cause irritation		
Ingestion:	Harmful		
Inhalation:	Harmful		
Chronic:	N/A		
Signs & Symptoms: Aggravated Medical Conditions:	N/A N/A		
Median Lethal Dose:	N/A		
Carcinogen:	N/A		
	12. Ecological Information		
Aquatic Toxicity:	Low		
Persistent Bioaccumulation Toxicity:	No		
Very Persistent, Very Bioaccumulative:			
Notes:	N/A		
	13. Disposal Considerations		
Dispose of in accordance with local, state, n	ational, and international regulations.		
	14. Transportation Data		
Hazardous:	Not hazardous for transportation.		
Hazard Class:	N/A		
Packing Group:	N/A		
UN Number:	N/A		

15. Regulatory Information	
No	
N/A	
Yes	
	No N/A

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

Document Last Revised:

07/09/2017

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