

Version	Revision Date:	SDS Number:	Date of last issue: 07/16/2019
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SECTION 1. IDENTIFICATION

Product name	: CHROMIUM OXIDE GREEN 5376				
Manufacturer or supplier's de	tails				
Company name of supplier Address	 Venator Americas LLC 10001 Woodloch Forest Drive The Woodlands, TX 77380 United States of America (USA) 				
Telephone Telefax	: (001) 844 831 6720 : (001) 281 465 6731				
E-mail address of person responsible for the SDS	: msds@venatorcorp.com				
Emergency telephone number	: USA & Canada: +1-800-424-9300 Other Americas: +1-703- 741-5970 [CCN 820025]				
Recommended use of the chemical and restrictions on use					
Recommended use	: Industrial use Colouring agents, pigments				

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Substance

Components

Chemical name	CAS-No.	Concentration (% w/w)
chromium (III) oxide	1308-38-9	90 - 100

The specific chemical identity and/or exact percentage (concentration) of composition may be withheld as a trade secret.



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SECTION 4. FIRST AID MEASURES

General advice	:	Consult a physician.
If inhaled	:	If breathed in, move person into fresh air. Get medical attention if symptoms occur.
In case of skin contact	:	Wash off with soap and water. Call a physician if irritation develops or persists.
In case of eye contact	:	Rinse with water. If eye irritation persists, consult a specialist.
If swallowed	:	Rinse mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	:	Dust contact with the eyes can lead to mechanical irritation. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. The product is not irritant but as with all fine powders can absorb moisture and natural oils from the surface of the skin during prolonged exposure. Individuals with sensitive skin may experience skin drying on prolonged or repeated exposure.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.
Notes to physician	:	No specific measures identified.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray Foam Dry powder Carbon dioxide (CO2)
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Hazardous decomposition products formed under fire conditions.



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	Hazard product	ous combustion s	:	Cr(VI): Hexavalent	t chromium
Specific extinguishing methods		:	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.		
	Further	information	:	Standard procedu	re for chemical fires.
	Special for firefi	protective equipment ghters	:	In the event of fire	e, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Remove all sources of ignition. Never return spills in original containers for re-use. Treat recovered material as described in the section "Disposal considerations". For disposal considerations see section 13.
Environmental precautions	:	No special environmental precautions required. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Keep in suitable, closed containers for disposal. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid creating dusty conditions and prevent wind dispersal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	:	 Minimize dust generation and accumulation. Avoid formation of respirable particles. Avoid inhalation, ingestion and contact with skin and eyes. Avoid exposure - obtain special instructions before use. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the



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	r information on e stability	technological safet : Keep in a dry pla No decomposition	

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis	
chromium (III) oxide	1308-38-9	TWA	0.5 mg/m3 (chromium)	OSHA Z-1	
Engineering measures	: Maintain air c standards.	oncentrations be	elow occupational exp	osure	
Personal protective equipmer	nt				
Hand protection Remarks	: For prolonged	or repeated co	ntact use protective g	loves.	
Eye protection	Ensure that e	Safety glasses Ensure that eyewash stations and safety showers are close to the workstation location.			
Skin and body protection	selected base involved and	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.			
Protective measures	: Wear suitable	Wear suitable protective equipment.			
Hygiene measures	the product. Remove cont before enterin Barrier cream	Remove contaminated clothing and protective equipment before entering eating areas. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has			

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: powder
Colour	: green
Odour	: odourless
Odour Threshold	: No data is available on the product itself.



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pН		:	5 - 9Concentration: 10 %	
Me	ting point	:	4,111 °F / 2,266 °C	
Boi	ling point	:	No data is available on the product itself.	
Fla	sh point	:	No data is available on the product itself.	
Eva	poration rate	:	No data is available on the product itself.	
Fla	mmability (solid, gas)	:	No data is available on the product itself.	
Fla	mmability (liquids)	:	No data is available on the product itself.	
	per explosion limit / Upper nmability limit	:	No data is available on the product itself.	
	ver explosion limit / Lower nmability limit	:	No data is available on the product itself.	
Vap	oour pressure	:	No data is available on the product itself.	
Rel	ative vapour density	:	No data is available on the product itself.	
Rel	ative density	:	No data is available on the product itself.	
Der	nsity	:	No data is available on the product itself.	
	k density	:	600 - 1,500 kg/m3	
	ubility(ies) Vater solubility	:	insoluble	
ç	Solubility in other solvents	:	No data is available on the product itself.	
	tition coefficient: n-	:	No data is available on the product itself.	
	anol/water o-ignition temperature	:	No data is available on the product itself.	
The	rmal decomposition	:	No data is available on the product itself.	
Vis	cosity	:	No data is available on the product itself.	
Exp	plosive properties	:	No data is available on the product itself.	
Oxi	dizing properties	:	No data is available on the product itself.	
Par	ticle size	:	No data is available on the product itself.	

SECTION 10. STABILITY AND REACTIVITY

Reactivity

: Stable at normal ambient temperature and pressure. Stable under recommended storage conditions.



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	ical stability bility of hazardous ons	: Reacts with May react v oxidizing co chlorine trifl glycerol - m	osition if stored and applied as directed. the following substances: vith molten alkali at high temperatures under onditions. uoride producing flame ay produce an explosion er recommended storage conditions.
Condi	tions to avoid	: Exposure to	omoisture
Incompatible materials		oxidizing co Lithium nitroalkanes dirubidium a oxygen diflu Strong oxid chlorine trifl	acetylide
Hazar produ	dous decomposition cts	chromium n	bunt (<0.1% as Cr) of reversion to hexavalent hay occur if the dry chromium (III) oxide powder is elevated temperatures.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: No data is available on the product itself.
Acute toxicity	
Components: chromium (III) oxide: Acute oral toxicityComponents	: LD50 (Rat, male): > 15,000 mg/kg Method: OECD Test Guideline 401
Components: chromium (III) oxide: Acute inhalation toxicity	 LC50 (Rat, male and female): > 5.41 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	: No data available
Acute toxicity (other routes of administration)	: No data available
Skin corrosion/irritation	

Skin corrosion/irritation

Components:



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chromium (III) oxide: Species: Rabbit Exposure time: 4 h Method: OECD Test Guideline 404 Result: No skin irritation

Serious eye damage/eye irritation

Components:

chromium (III) oxide: Species: Rabbit Result: No eye irritation Exposure time: 24 h Method: OECD Test Guideline 405

Respiratory or skin sensitisation

Components:

chromium (III) oxide: Exposure routes: Skin Species: Guinea pig Method: OECD Test Guideline 406 Result: Not a skin sensitizer.

Assessment:

No data available

Germ cell mutagenicity

Components:

chromium (III) oxide: Genotoxicity in vitro

: Test system: Salmonella typhimurium Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Result: negative

Components:

chromium (III) oxide: Genotoxicity in vivo : Test Type: Micronucleus test Species: Mouse (male and female) Method: Mutagenicity (micronucleus test)

Carcinogenicity

Components:

chromium (III) oxide: Species: Rat, male and female Application Route: Ingestion Exposure time: 2 Years Result: negative

Carcinogenicity -Assessment : No data available

Result: negative



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	IARC			s product present at levels greater than or tified as probable, possible or confirmed y IARC.
	ACGIH			s product present at levels greater than or tified as a carcinogen or potential H.
	OSHA			s product present at levels greater than or DSHA's list of regulated carcinogens.
	NTP			s product present at levels greater than or tified as a known or anticipated carcinogen
	Reprod	luctive toxicity		
	<u>Compo</u>	nents:		
		ım (III) oxide: on fertility	8 mg/kg body wei	Parent: No observed adverse effect level: >
	Effects develop	on foetal ment	: No data available	
	Reprodu Assess	uctive toxicity - ment	: No data available	
		single exposure available		
		repeated exposure available		
	Repeat	ed dose toxicity		
	<u>Compo</u>	nents:		
	Species NOAEL Applica Exposu Method	im (III) oxide: s: Rat, male and female .: 2,000 mg/kg tion Route: Oral ire time: 90 days : OECD Test Guideline s: No significant adver	e 408	ed
	LOAEL Applica Exposu Method	s: Rat, male and female : 3 mg/m ³ tion Route: Inhalation re time: 13 w : OECD Test Guideline s: No significant adver	e 413	ed



СП	ROIVIIU		JKEE	N 3370	
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	Repeated Assessme	dose toxicity - nt	:	No data available	
	Aspiration No data av	-			
	Experienc	e with human	exposu	re	
	General Inf		-	available	
	Inhalation:		No data	available	
	Skin conta	ct:	No data	available	
	Eye contac	et:	No data	available	
	Ingestion:		No data	available	
	Toxicolog No data ava	y, Metabolism , ailable	Distrib	ution	
	Neurologi No data av	cal effects ailable			
	Further inf	formation			
	Ingestion:		No data	available	
SEC	TION 12. E	COLOGICAL I	NFORM	ATION	
	Ecotoxicity	y			
	Compone chromium (Toxicity to	(III) oxide:	:	LC50 (Danio rerio Exposure time: 96 Method: ISO 7346	
	Toxicity to aquatic inv		her :	No data available	

Components:

chromium (III) oxide:						
Toxicity to algae/aquatic	:	EC50 (Desmodesmus	subspicatus	(green	algae)):	848 µg/L
plants		Exposure time: 72 h				



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				Method: OECD T	est Guideline 201
	M-Facto toxicity	or (Acute aquatic)	:	No data available	
		im (III) oxide: to fish (Chronic	:	Exposure time: 3	io (zebra fish)): > 1,000 mg/l 0 d est Guideline 210
	Toxicity aquatic	ments: m (III) oxide: to daphnia and other invertebrates c toxicity)	:	Exposure time: 2	nagna (Water flea)): 0.014 mg/l 1 d est Guideline 202
	M-Facto toxicity	or (Chronic aquatic)	:	No data available	
		ments: Im (III) oxide: Ito microorganisms		EC50 (activated s Exposure time: 3 Method: ISO 819 EC50 (Other): 35	2
		[,] to soil dwelling		Exposure time: 4 No data available	
	organisi Plant to			No data available	
		nt toxicity	•	No data available	
		to terrestrial	:	No data available	
		cology Assessment equatic toxicity	:	No data available	
	Chronic	aquatic toxicity	:	No data available	
	Toxicity	Data on Soil	:	No data available	
		rganisms relevant to ronment	:	No data available	
		ence and degradabil	ity		
	Biodegr	adability - Product	:	Result: Not readil	y biodegradable.
	Biocher	mical Oxygen	:	No data available	



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Dema	and (BOD)		
Cherr (COD	nical Oxygen Demand))	: No data available	e
BOD/	COD	: No data available	e
ThOD)	: No data available	e
BOD/	ThOD	: No data available	e
Disso (DOC	olved organic carbon	: No data available	9
-	ico-chemical <i>v</i> ability	: No data available	e
Stabil	lity in water	: No data available	9
Photo	odegradation	: No data available	e
Impac Treatr	ct on Sewage ment	: No data available	9
	ccumulative potential		
Bioac	cumulation - Product	: Remarks: Bioac	cumulation is unlikely.
	ion coefficient: n- ol/water	: No data available	e
	lity in soil		
Mobil	ity	: No data available	9
	bution among onmental compartments	: No data available	9
Stabi	lity in soil	: No data available	e
Other	r adverse effects		
Enviro pathw	onmental fate and vays	: No data available	9
	lts of PBT and vPvB ssment - Product	to be either pers	mixture contains no components considered istent, bioaccumulative and toxic (PBT), or and very bioaccumulative (vPvB) at levels of
Endo poten	crine disrupting tial	: No data available	e
	rbed organic bound ens (AOX)	: No data available	e



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Hazardous to the ozone layer

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information	:	No data available
Global warming potential (GWP)	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of wastes in an approved waste disposal facility.
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA Not regulated as dangerous goods

IMDG

Not regulated as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable for product as supplied.

National Regulations

DOT Classification Not regulated as dangerous goods



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SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain a	ny components with a CERCLA RQ.
SARA 313	: The following components are subject to reporting levels
	established by SARA Title III, Section 313:

chromium (III) oxide 1308-38-9 >= 90 - <= 100

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

chromium (III) oxide 1308-38-9

California Prop. 65

WARNING: This product can expose you to chemicals including Arsenic (As), Cadmium (Cd), Chromium VI (Cr6+), Cobalt (Co), Lead (Pb), Mercury (Hg) and Nickel (Ni), present as trace impurities and not intentionally added, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

CH INV	:	On the inventory, or in compliance with the inventory
DSL	:	All components of this product are on the Canadian DSL
AICS	:	On the inventory, or in compliance with the inventory
NZIOC	:	On the inventory, or in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	All substances listed as active on the TSCA inventory

Inventories

AICS (Australia), AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals

No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No substances are subject to TSCA 12(b) export notification requirements.

TSCA - 5(a) Significant New Use Rule List of Chemicals

No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No substances are subject to TSCA 12(b) export notification requirements.



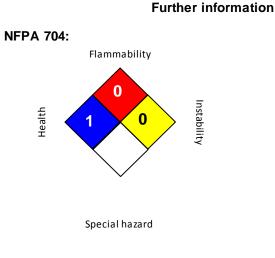
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SECTION 16. OTHER INFORMATION



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

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.

LABEL CODE : N/A

Sources of key data used to compile the Safety Data Sheet	:	Information taken from reference works and the literature., Information derived from practical experience.

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OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1
		Limits for Air Contaminants
OSHA Z-1 / TWA	:	8-hour time weighted average

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