

Version 8.1	Revision Date: 05/08/2019	SDS Numbe 1342021-00	
SECTION	1. IDENTIFICATION		
Produ	uct name	: 532-631	4 ETFE HIGH BUILD GREEN
Produ	uct code	: D154380	078
SDS-	Identcode	: 1300001	126474
Manu	afacturer or supplier's	details	
Com	pany name of supplier	: The Che	emours Company FC, LLC
Addre	ess		arket Street ton, DE 19801 United States of America (USA)
Telep	phone	: 1-844-77	73-CHEM (outside the U.S. 1-302-773-1000)
Emer	gency telephone	773-200	emergency: 1-866-595-1473 (outside the U.S. 1-302- 00) ; Transport emergency: +1-800-424-9300 (outside +1-703-527-3887)
Reco	mmended use of the o	hemical and	restrictions on use
Reco	mmended use	: Coatings	S
Restr	ictions on use	Do not u tions inv internal l written a	essional users only. use or resell Chemours [™] materials in medical applica- volving implantation in the human body or contact with body fluids or tissues unless agreed to by Seller in a agreement covering such use. For further information, contact your Chemours representative.

SECTION 2. HAZARDS IDENTIFICATION

Combustible dust

GHS label elements

Signal Word	:	Warning
Hazard Statements	:	May form combustible dust concentrations in air.

Other hazards

The thermal decomposition vapors of fluorinated plastics may cause polymer fume fever with flulike symptoms in humans, especially when smoking contaminated tobacco. Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS



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Subst	tance / Mixture	:	Mixture			
Comj	ponents					
Cherr	nical name		CAS-No.		Concentration (% w/w)	
Chror	mium oxide		1308-38-9		>= 1 - < 5	
Actua	al concentration is withhe	eld as	a trade secret			
ECTION	4. FIRST AID MEASUF	RES				
Gene	ral advice		vice immediatel	ly.	r if you feel unwell, seek medical ad- or in all cases of doubt seek medical	
lf inha	aled		If inhaled, remove to fresh air. Get medical attention if symptoms occur.			
In cas	se of skin contact		Wash with wate Get medical atte		ap. symptoms occur.	
In cas	se of eye contact		: If in eyes, rinse well with water. Get medical attention if irritation develops and persists.			
lf swa	allowed		If swallowed, De Get medical atte Rinse mouth the	ention if s	symptoms occur.	
	important symptoms effects, both acute and ed		the skin.		use mechanical irritation or drying of es can lead to mechanical irritation.	
Prote	ction of first-aiders	:	No special prec	autions a	are necessary for first aid responders.	
	s to physician	:	Treat symptom	atically ar	nd supportively.	

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Do not use a solid water stream as it may scatter and spread fire. Exposure to combustion products may be a hazard to health.

SAFETY DATA SHEET



532-6314 ETFE HIGH BUILD GREEN

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	Hazard ucts	ous combustion prod-	:	Hydrogen fluoride carbonyl fluoride potentially toxic flu aerosolized partic Carbon oxides Chromium compo	uorinated compounds ulates
	Specifi ods	c extinguishing meth-	:	cumstances and t Use water spray t	measures that are appropriate to local cir- he surrounding environment. o cool unopened containers. ged containers from fire area if it is safe to do
		l protective equipment fighters	:	necessary.	ed breathing apparatus for firefighting if ective equipment.
SEC	TION 6	. ACCIDENTAL RELE	AS	E MEASURES	
	tive equ	al precautions, protec- uipment and emer- procedures	:	Follow safe handl equipment recom	ing advice and personal protective mendations.
	Enviror	nmental precautions	:	Prevent further lea Retain and dispos	e environment must be avoided. akage or spillage if safe to do so. se of contaminated wash water. should be advised if significant spillages ed.

Methods and materials for containment and cleaning up	:	Sweep up or vacuum up spillage and collect in suitable con- tainer for disposal. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Dust deposits should not be allowed to accumulate on surfa- ces, as these may form an explosive mixture if they are relea- sed into the atmosphere in sufficient concentration. Local or national regulations may apply to releases and dispo- sal of this material, as well as those materials and items em- ployed in the cleanup of releases. You will need to determine which regulations are applicable.
		Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures	:	Static electricity may accumulate and ignite suspended dust causing an explosion. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Local/Total ventilation	:	Use only with adequate ventilation.

SAFETY DATA SHEET



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Adv	Advice on safe handling		 Do not breathe dust. Handle in accordance with good industrial hygiene and s practice, based on the results of the workplace exposure sessment Minimize dust generation and accumulation. Keep container closed when not in use. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release environment. 			
Cor	nditions for safe storage	:		labeled containers. nce with the particular national regulations.		
Ma	terials to avoid	:	Do not store with Strong oxidizing a	the following product types: agents		

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Chromium oxide	1308-38-9	TWA	0.5 mg/m ³ (chromium)	OSHA Z-1
		TWA	0.5 mg/m ³ (chromium)	NIOSH REL

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Hydrofluoric acid	7664-39-3	TWA	3 ppm 2.5 mg/m ³	NIOSH REL
		С	6 ppm 5 mg/m³	NIOSH REL
		TWA	3 ppm	OSHA Z-2
		TWA	0.5 ppm (Fluorine)	ACGIH
		С	2 ppm (Fluorine)	ACGIH
Carbonyl difluoride	353-50-4	TWA	2 ppm	ACGIH
		STEL	5 ppm	ACGIH
		ST	5 ppm 15 mg/m³	NIOSH REL
		TWA	2 ppm 5 mg/m³	NIOSH REL
Carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm	OSHA Z-1



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				9,000 mg/m ³	
			TWA	5,000 ppm 9,000 mg/m ³	NIOSH R
			ST	30,000 ppm 54,000 mg/m ³	NIOSH R
Carb	on monoxide	630-08-0	TWA	25 ppm	ACGIH
			TWA	35 ppm 40 mg/m ³	NIOSH R
			С	200 ppm 229 mg/m ³	NIOSH R
			TWA	50 ppm 55 mg/m ³	OSHA Z-
		Minimize w Apply mea Ensure tha dust collec signed in a	vorkplace exposisures to preven t dust-handling tors, vessels, a manner to pre	on, especially in confin sure concentrations. In dust explosions. In systems (such as exh and processing equipmed vent the escape of dus to leakage from the equi	aust ducts, ent) are de- t into the
Pers	onal protective equip	ment			
Resp	viratory protection	maintain va concentrat unknown, a Follow OS use NIOSH by air purif dous chem respirator i exposure l	apor exposures ions are above appropriate res HA respirator re I/MSHA approv ying respirators ical is limited. I f there is any p evels are unkno	t ventilation is recommended recommended limits o piratory protection shore egulations (29 CFR 19 ved respirators. Protect against exposure to a Use a positive pressure otential for uncontrolled own, or any other circu ators may not provide a	limits. Where r are uld be worn. 10.134) and ion provided ny hazar- e air supplied d release, mstance
Hand	protection				
Μ	aterial	: Chemical-ı	esistant gloves	3	
	aterial emarks	: For prolon	ged or repeated	d contact use protective s and at the end of wo	
R		: For prolon Wash hand	ged or repeated ds before break ollowing persor	d contact use protective	rkday.
R Eye j	emarks	: For prolong Wash hand : Wear the for Safety gog	ged or repeated ds before break ollowing persor	d contact use protective as and at the end of wo nal protective equipmer	rkday.



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			Wash contaminat	ed clothing before re-use.
SECTIO	N 9. PHYSICAL AND CH	ЕМІС		S
Арр	earance	:	powder	
Colo	or	:	green	
Odc	Dr	:	No data available	e
Odd	or Threshold	:	No data available	e
pН		:	No data available	e
Melt	ting point/freezing point	:	No data available	e
Initia ranç	al boiling point and boiling ge	:	No data available	e
Flas	sh point	:	Not applicable	
Eva	poration rate	:	Not applicable	
Flar	nmability (solid, gas)	:	Not classified as	a flammability hazard
	per explosion limit / Upper amability limit	:	No data available	e
	ver explosion limit / Lower amability limit	:	No data available	e
Vap	or pressure	:	Not applicable	
Rela	ative vapor density	:	Not applicable	
Den	isity	:	1.7520 g/cm ³	
	ubility(ies) Water solubility	:	negligible	
	tition coefficient: n- anol/water	:	Not applicable	
Auto	oignition temperature	:	No data available	e
Dec	composition temperature	:	No data available	e
	cosity /iscosity, kinematic	:	Not applicable	
Exp	losive properties	:	Not explosive	
Oxio	dizing properties	:	The substance o	r mixture is not classified as oxidizing.



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	Particle size		:	No data available	9
SEC	TION 1	0. STABILITY AND RE	EAC	ΓΙVITY	
	Reactiv	ity	:	Not classified as	a reactivity hazard.
	Chemical stability		:	Stable under nor	mal conditions.
	Possibility of hazardous reac- tions		:	May form combustible dust concentrations in air. Can react with strong oxidizing agents. Hazardous decomposition products will be formed at elevate temperatures.	
	Conditi	ons to avoid	:	Heat, flames and Avoid dust forma	
	Incomp	atible materials	:	Oxidizing agents	
	Hazardous decomposition prod Thermal decomposition :		J cts Hydrofluoric acid Carbonyl difluorio Carbon dioxide Carbon monoxide	de	

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Components:

Chromium oxide:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 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 inhala- tion toxicity

Skin corrosion/irritation

Not classified based on available information.

Components:

Chromium oxide:



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Spec Meth Resu	od			deline 404 າ
	ous eye damage/eye classified based on av		ation.	
Com	ponents:			
Chro	omium oxide:			
Spec	cies	: Rabb	it	
Resu	ılt	: No ey	e irritation	
Meth	od	: OECI	D Test Gui	deline 405

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Components:

Chromium oxide:

Test Type	:	Buehler Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative
Remarks	:	Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.

Components:

Chromium oxide:

Genotoxicity in vitro :	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Genotoxicity in vivo :	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Method: OECD Test Guideline 474 Result: negative

Carcinogenicity

Not classified based on available information.



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Comp	oonents:			
Chror	nium oxide:			
Speci		: Rat		
	ation Route	: Ingestion : 2 Years		
Resul		: negative		
IARC			ent at levels greater than or equal to 0.1% is r confirmed human carcinogen by IARC.	
OSHA No component of this product present at levels greater than or equal to 0.1 on OSHA's list of regulated carcinogens.				
NTP			ent at levels greater than or equal to 0.1% is ed carcinogen by NTP.	
Repro	oductive toxicity			
-	assified based on av	ailable information.		
<u>Comp</u>	oonents:			
Chror	nium oxide:			
Effect	s on fetal developme		bryo-fetal development	
		Species: Rat Application Ro	ute: Ingestion	
		Result: negativ	/e	
		Remarks: Base	ed on data from similar materials	
	-single exposure assified based on av	ailable information.		
STOT	-repeated exposure)		
Not cl	assified based on av	ailable information.		
Repea	ated dose toxicity			
<u>Comp</u>	oonents:			
Chror	nium oxide:			
Speci		: Rat		
AON Applic	L ation Route	: 2,000 mg/kg : Ingestion		
	sure time	: 90 Days		
Aspir	ation toxicity			
-	<mark>ation toxicity</mark> assified based on av	ailable information.		



ersion 1	Revision Date: 05/08/2019	-	9S Number: 42021-00037	Date of last issue: 11/07/2018 Date of first issue: 02/27/2017
ECTIC	ON 12. ECOLOGICAL INF	ORN	ΙΑΤΙΟΝ	
Ec	otoxicity			
<u>Co</u>	mponents:			
Ch	romium oxide:			
То	xicity to fish	:	LC50 (Danio reric Exposure time: 96	o (zebra fish)): > 10,000 mg/l S h
	xicity to algae/aquatic nts	:	EC50 (Desmodes mg/l Method: OECD T	emus subspicatus (green algae)): > 848.6 est Guideline 201
To: icit	xicity to fish (Chronic tox- y)	:	NOEC (Danio rer Exposure time: 30	o (zebra fish)): 1,000 mg/l) d
aqı	xicity to daphnia and other uatic invertebrates (Chron- oxicity)		Exposure time: 2	nagna (Water flea)): > 0.02 mg/l l d city at the limit of solubility.
To	xicity to microorganisms	:	EC50: > 10,000 n Exposure time: 3	
	rsistence and degradabi data available	lity		
Bio	baccumulative potential			
<u>Co</u>	mponents:			
	romium oxide: baccumulation	:	Species: Fish Bioconcentration	factor (BCF): 260 - 800
	bility in soil data available			
Ot	her adverse effects			
Re	oduct: sults of PBT and vPvB sessment	:	to be either persis	ixture contains no components considered stent, bioaccumulative and toxic (PBT), or d very bioaccumulative (vPvB) at levels of

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods		
Waste from residues	:	Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste



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handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards		Combustible dust		
SARA 313	:	The following components are subject to reporting levels tablished by SARA Title III, Section 313:		
		Chromium oxide	1308-38-9	>= 1 - < 5 %

US State Regulations

Pennsylvania Right To Know

Fluoropolymer	Trade secret
Chromium oxide	1308-38-9
Copper iodide	7681-65-4

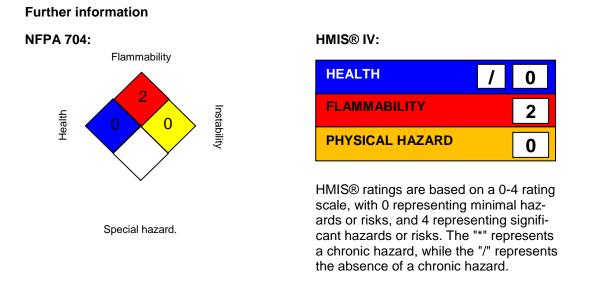
California Prop. 65

WARNING: This product can expose you to chemicals including pentadecafluorooctanoic acid, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



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California List of Hazardous Substances Chromium oxide 1308-38-9				
California Permissible Exposure Limits for Chemical Contaminants Chromium oxide 1308-38-9				

SECTION 16. OTHER INFORMATION



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For further information contact the local Chemours office or nominated distributors. All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

Full text of other abbreviations

ACGIH NIOSH REL OSHA Z-1		USA. ACGIH Threshold Limit Values (TLV) USA. NIOSH Recommended Exposure Limits USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim- its for Air Contaminants
OSHA Z-2	:	USA. Occupational Exposure Limits (OSHA) - Table Z-2
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
ACGIH / C	:	Ceiling limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
	:	Ceiling value not be exceeded at any time.
OSHA Z-1 / TWA	÷	8-hour time weighted average
OSHA Z-2 / TWA	•	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the



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German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance: ELx - Loading rate associated with x% response: EmS - Emergency Schedule: ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC -International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG -United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to	:	Internal technical data, data from raw material SDSs, OECD
compile the Material Safety		eChem Portal search results and European Chemicals Agen-
Data Sheet		cy, http://echa.europa.eu/

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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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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