

Version Number 1.1 Revision Date 07/03/2025 Page 1 of 15 Print Date 07/05/2025

SAFETY DATA SHEET

S243.2 FEP WSS CC HIGH RED

Section 1. Identification				
GHS product identifier Chemical name CAS number	::	S243.2 FEP WSS CC HIGH RED Mixture Mixture		
Other means of identification Product type	:	CC10234297 solid		
Relevant identified uses of the substance or mixture and uses advised against Product use Industrial applications. Plastics.				
Supplier's details	:	Colorant Chromatics Chromatics, Inc. 19 Francis J. Clarke Circle, Bethel, CT 06801, USA +1 800 242 2296		
Emergency telephone number (with hours of operation)	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).		

Section 2. Hazards identification

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. Fluoropolymers heated above 350 C can evolve hydrogen fluoride and carbonyl fluoride as degradation products. Processing at elevated temperatures may release fumes that can cause polymer fume fever. The end-user (fabricator) should take necessary precautions (mechanical ventilation, local exhaust, respiratory protection, etc.) to protect employees from exposure to any vapors or dusts that may be released during heating or fabrication. See Sections 8 and 11 for special precautions. After handling, always wash hands thoroughly with soap and water.

OSHA/HCS status	:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	:	Not classified.



Version Number 1.1 Revision Date 07/03/2025 Page 2 of 15 Print Date 07/05/2025

GHS label elements		
Signal word Hazard statements	:	No signal word. No known significant effects or critical hazards.
Precautionary statements		Not applicable
Ducuention	:	Not applicable.
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
Supplemental label elements	:	None known.
Hazards not otherwise classified	:	None known.
		Not available.

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	CC10234297

CAS number/other identifiers

Ingredient name	%	CAS number
Titanium dioxide	>= 0.3 - <= 1	13463-67-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.



Version Number 1.1	Page 3 of 15
Revision Date 07/03/2025	Print Date 07/05/2025

Inhalation Skin contact	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Wash out 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 medical personnel. Get medical attention if symptoms occur.
Most important symptoms/effects, acu	te ai	nd delayed
Potential acute health effects		
Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.
Over-exposure signs/symptoms		
Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.
Indication of immediate medical atter	ntior	and special treatment needed, if necessary
Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.
See toxicological information (Section	n 11)	

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media :

In case of fire, use water spray (fog), foam, dry chemical or CO₂.



Version Number 1.1 Revision Date 07/03/2025 Page 4 of 15 Print Date 07/05/2025

Unsuitable extinguishing media	:	None known.
Specific hazards arising from the chemical	:	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds
Special protective actions for fire- fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel For emergency responders	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions Methods and materials for containme	: ent ai	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Small spill Large spill	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.



Version Number 1.1 Revision Date 07/03/2025

Page 5 of 15 Print Date 07/05/2025

Section 7. Handling and storage

Precautions for safe handling

Protective measures Advice on general occupational hygiene	:	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Titanium dioxide	OSHA PEL 1989 (1989-03-01)TWA 10 mg/m3 Form: Total dustOSHA PEL (1993-06-30)TWA 15 mg/m3 Form: Total dustACGIH TLV (2022-01-06)TWA 0.2 mg/m3 Form: respirable fraction, nanoscale particlesTWA 2.5 mg/m3 Form: respirable fraction, finescale particles
	TWA 2.5 mg/m3 Form: respirable fraction, finescale particles

Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



Version Number 1.1 Revision Date 07/03/2025

Individual protection measures

Page 6 of 15 Print Date 07/05/2025

Hygiene measures Eye/face protection	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products
Body protection	:	if a risk assessment indicates this is necessary. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be
Other skin protection	:	approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state	:	solid [Pellets.]
Color	:	RED
Odor	:	Not available.
Odor threshold	:	Not available.
pH	:	Not available.
Melting point	:	Not available.
Boiling point	:	Not available.
Flash point	:	Not applicable.



Version Number 1.1 Revision Date 07/03/2025 Page 7 of 15 Print Date 07/05/2025

Burning time Burning rate Evaporation rate Flammability (solid, gas) Lower and upper explosive (flammable) limits	:::::::::::::::::::::::::::::::::::::::	Not available. Not available. Not available. Not available. Lower: Not applicable. Upper: Not applicable.
Vapor pressure	:	Not available.
Vapor density	:	Not applicable.
Relative density Solubility Solubility in water	:	Not available. Not available. Not available.
Partition coefficient: n-		Not applicable.
octanol/water	•	Not applicable.
Auto-ignition temperature	:	Not applicable.
Decomposition temperature SADT Viscosity	:	Not available. Not available. Dynamic: Not available.
VISCOSICY	·	Kinematic: Not applicable.
<u>Aerosol product</u>		
Heat of combustion	:	Not available.
Ignition distance	:	Not available.
Enclosed space ignition - Time equivalent	:	Not available.
Enclosed space ignition -	:	Not available.

Enclosed space ignition -	•	Not available.
Deflagration density		
Flame height	:	Not available.
Flame duration	:	Not available.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or
Chemical stability	:	its ingredients. Stable under recommended storage and handling conditions (see
Possibility of hazardous reactions	:	Section 7). Under normal conditions of storage and use, hazardous reactions will
		not occur.



Version Number 1.1 Revision Date 07/03/2025 Page 8 of 15 Print Date 07/05/2025

Conditions to avoid	:	Keep away from extreme heat and oxidizing agents.
Incompatible materials	:	Keep away from strong acids.
		Oxidizer.
Hazardous decomposition	:	Under normal conditions of storage and use, hazardous decomposition
products		products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Product/ingredient name	Result	Species	Dose	Exposure
Titanium oxide (TiO2)				
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h
	Dusts and mists			
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-
Conclusion/Summary	: Mixture	e.Not fully tested.		
Irritation/Corrosion				
Conclusion/Summary				
Skin	: Mixtur	e.Not fully tested.		
Eyes	: Mixtur	e.Not fully tested.		
Respiratory	: Mixtur	e.Not fully tested.		
<u>Sensitization</u>				
Conclusion/Summary				
Skin	: Mixtur	e.Not fully tested.		
Respiratory	: Mixtur	e.Not fully tested.		
<u>Mutagenicity</u>				
Conclusion/Summary	: Mixtur	e.Not fully tested.		
Carcinogenicity				
Conclusion/Summary	: Mixtur	e.Not fully tested.		
Classification				

Product/ingredient name	OSHA	IARC	NTP
Titanium oxide (TiO2)	-	2B	-



Version Number 1.1 Revision Date 07/03/2025 Page 9 of 15 Print Date 07/05/2025

Reproductive toxicity		
Conclusion/Summary	:	Mixture.Not fully tested.
<u>Teratogenicity</u>		
Conclusion/Summary	:	Mixture.Not fully tested.
Specific target organ toxicity (single Not available.	exp	<u>osure)</u>
Specific target organ toxicity (repea Not available.	ted e	exposure)
Aspiration hazard Not available.		
Information on the likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact Inhalation Skin contact Ingestion	::	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Symptoms related to the physical, cl	hemi	cal and toxicological characteristics
Eye contact Inhalation Skin contact Ingestion	::	No specific data. No specific data. No specific data. No specific data.
Delayed and immediate effects and a	also (chronic effects from short and long term exposure
Short term exposure		
Potential immediate effects Potential delayed effects	:	Not available. Not available.
Long term exposure		
Potential immediate effects Potential delayed effects	:	Not available. Not available.



Version Number 1.1 Revision Date 07/03/2025 Page 10 of 15 Print Date 07/05/2025

Potential chronic health effects

Conclusion/Summary	:	Mixture.Not fully tested.
General Carcinogenicity Mutagenicity Teratogenicity Developmental effects Fertility effects	: : : : : : : : : : : : : : : : : : : :	No known significant effects or critical hazards. No known significant effects or critical hazards.
Numerical measures of toxicity Acute toxicity estimates N/A		
Other information	:	This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium oxide (TiO2)	·		
	Acute LC50 > 1,000 Mg/l Marine water	Fish - Fundulus heteroclitus	96 h
	Acute LC50 3 Mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 h
	Acute LC50 6.5 Mg/l Fresh water	Daphnia - Daphnia pulex	48 h
S243.2 FEP WSS CC HIGH RE	ED		·
Remarks - Acute - Aquatic invertebrates.:	Chemicals are not readily available	e as they are bound within the po	lymer matrix.
Conclusion/Summary	: Chemicals are not readi polymer matrix.	ly available as they are bound wi	thin the
Persistence and degradability			



Version Number 1.1 Revision Date 07/03/2025 Page 11 of 15 Print Date 07/05/2025

Conclusion/Summary	:	Chemicals are not readily available as they are bound within the polymer matrix.
Conclusion/Summary	:	Chemicals are not readily available as they are bound within the polymer matrix.
Bioaccumulative potential Not available.		
Mobility in soil		
Soil/water partition coefficient (KOC)	:	Not available.
Other adverse effects	:	No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Acute hazardous waste "P" List: Not listed

United States - RCRA Toxic hazardous waste "U" List: Not listed

Section 14. Transport information

U.S.DOT 49CFR Ground/Air/Water	:	Not regulated for transportation.
IATA	:	Consult mode specific transport rules
11/15		



Version Number 1.1 Revision Date 07/03/2025

Page 12 of 15 Print Date 07/05/2025

IMDG

: Consult mode specific transport rules

Section 15. Regulatory information

U.S. Federal regulations	:	 United States - TSCA 12(b) - Chemical export notification: None of the components are listed. United States - TSCA 4(a) - Final Test Rules: Not listed United States - TSCA 4(a) - ITC Priority list: Not listed United States - TSCA 4(a) - Proposed test rules: Not listed United States - TSCA 4(f) - Priority risk review: Not listed United States - TSCA 4(f) - Priority risk review: Not listed United States - TSCA 5(a) - Final significant new use rules: Not listed United States - TSCA 5(a) - Proposed significant new use rules: Not listed United States - TSCA 5(e) - Substances consent order: Not listed United States - TSCA 6 - Final risk management: Not listed United States - TSCA 8(a) - Chemical risk rules: Not listed United States - TSCA 8(a) - Dioxin/Furane precusor: Not listed United States - TSCA 8(a) - Preliminary assessment report (PAIR): Not listed United States - TSCA 8(c) - Significant adverse reaction (SAR): Not listed United States - TSCA 8(d) - Health and safety studies: Not listed United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Not listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances: Not listed
		United States - EPA Clean air act (CAA) section 112 - Accidental
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) Clean Air Act Section 602 Class I	:	Listed Not listed
Substances Clean Air Act Section 602 Class II	:	Not listed



Version Number 1.1 Revision Date 07/03/2025 Page 13 of 15 Print Date 07/05/2025

Substances		
DEA List I Chemicals (Precursor	:	Not listed
Chemicals)		
DEA List II Chemicals (Essential	:	Not listed
Chemicals)		

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification

Not applicable.

:

Composition/information on ingredients

No products were found.

Name	%	Classification
Titanium oxide (TiO2)	>= 0.3 - <= 1	CARCINOGENICITY - Category 2

Not applicable.

State regulations		
Massachusetts	:	None of the components are listed.
New York	:	None of the components are listed.
New Jersey	:	None of the components are listed.
Pennsylvania	:	None of the components are listed.
<u>California Prop. 65</u>		-

WARNING: This product can expose you to Titanium dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Titanium dioxide	-	-

United States inventory (TSCA 8b)	:	All components are active or exempted.
Canada inventory	:	All components are listed or exempted.
<u>International regulations</u> <u>Inventory list</u>		



Version Number 1.1 Revision Date 07/03/2025 Page 14 of 15 Print Date 07/05/2025

Australia Canada China Eurasian Economic Union	:	Not determined. All components are listed or exempted. All components are listed or exempted. Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): Not determined.
New Zealand Philippines Republic of Korea Taiwan	:	All components are listed or exempted. All components are listed or exempted. All components are listed or exempted. All components are listed or exempted.
Thailand Turkey United States Viet Nam	:	exempted. All components are listed or exempted. Not determined. All components are active or exempted. Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	/	0
Flammability		0
Physical hazards		

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual. History

Date of printing	:	07/05/2025
Date of issue/Date of revision	:	07/03/2025
Date of previous issue	:	05/12/2022
Version	:	1.1
Key to abbreviations	:	ATE = Acute Toxicity Estimate
-		BCF = Bioconcentration Factor
		GHS = Globally Harmonized System of Classification and Labelling of
		Chemicals
		IATA = International Air Transport Association
		IBC = Intermediate Bulk Container
		IMDG = International Maritime Dangerous Goods
		LogPow = logarithm of the octanol/water partition coefficient



Version Number 1.1 Revision Date 07/03/2025

Page 15 of 15 Print Date 07/05/2025

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations Not available.

References

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.