

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 1 of 14 Print Date 05/24/2016 Revision Date 05/23/2016

SAFETY DATA SHEET

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Section 1. Identification

GHS product identifier XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Chemical name Mixture **CAS** number Mixture CC10240581 Other means of identification

Product type solid

Relevant identified uses of the substance or mixture and uses advised against

Industrial applications. Plastics. Product use

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.



SAFETY DATA SHEET

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 2 of 14 Revision Date 05/23/2016 Print Date 05/24/2016

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General: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.

Section 3. Composition/information on ingredients

Substance/mixture: MixtureChemical name: MixtureOther means of identification: CC10240581

CAS number/other identifiers

Ingredient name	%	CAS number
Nickel titanium oxide (NiTiO3)	1 - 3	12035-39-1

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.



XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 3 of 14 Print Date 05/24/2016 Revision Date 05/23/2016

Inhalation 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. Remove victim to fresh air and keep at

rest in a position comfortable for breathing. 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, acute and delayed

Potential acute health effects

Eye contact No known significant effects or critical hazards. 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

Over-exposure signs/symptoms

Eye contact No specific data. Inhalation No specific data. Skin contact No specific data. No specific data. **Ingestion**

Indication of immediate medical attention 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 11)

Section 5. Fire-fighting measures

Extinguishing media



XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 4 of 14 Revision Date 05/23/2016 Print Date 05/24/2016

Suitable extinguishing media Unsuitable extinguishing media : In case of fire, use water spray (fog), foam, dry chemical or CO_2 .

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 sulfur oxides

halogenated compounds metal oxide/oxides

Special protective actions for firefighters : 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 selfcontained 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 : 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.

For emergency responders : If specialised 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 : 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).

Methods and materials for containment and cleaning up

Small 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.

Large spill : 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



XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Revision Date 05/23/2016 Page 5 of 14 Print Date 05/24/2016

licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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
Nickel titanium oxide (NiTiO3)	NIOSH REL (2005-09-30)
Appropriate engineering controls	Good general ventilation should be sufficient to control worker
Environmental exposure controls	exposure to airborne contaminants. 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.

Individual protection measures



XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 6 of 14 Revision Date 05/23/2016 Print Date 05/24/2016

Hygiene measures : 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.

Eye/face protection : 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

if a risk assessment indicates this is necessary.

Body protection : 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.

Other skin protection : 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: Use a properly fitted, particulate filter respirator complying with an

approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the

selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state solid [Pellets.] Color **GREEN** Odor Not available. **Odor threshold** Not available. Not available. pН **Melting point** Not available. **Boiling point** Not available. Flash point Not available. **Burning time** Not available. **Burning** rate Not available.



XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 7 of 14 Revision Date 05/23/2016 Print Date 05/24/2016

Evaporation rate : Not available. **Flammability (solid, gas)** : Not available.

Lower and upper explosive : Lower: Not available. (flammable) limits : Upper: Not available.

Vapor pressure: Not available.Vapor density: Not available.Relative density: Not available.Solubility: Not available.Solubility in water: Not available.Partition coefficient: n-: Not available.

octanol/water

Auto-ignition temperature: Not available.Decomposition temperature: Not available.SADT: Not available.

Viscosity : Dynamic: Not available.

Kinematic: Not available.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or

its ingredients.

Chemical stability : Stable under recommended storage and handling conditions (see

Section 7).

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will

not occur

Conditions to avoid : Keep away from extreme heat and oxidizing agents.

Incompatible materials : Keep away from strong acids.

Oxidizer.

Hazardous decomposition

products

Under normal conditions of storage and use, hazardous decomposition

products should not be produced.

Section 11. Toxicological 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.

Information on toxicological effects

Acute toxicity

Conclusion/Summary : Mixture., Not fully tested.

Irritation/Corrosion



SAFETY DATA SHEET

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 8 of 14 Revision Date 05/23/2016 Print Date 05/24/2016

Conclusion/Summary

Skin: Mixture., Not fully tested.Eyes: Mixture., Not fully tested.Respiratory: Mixture., Not fully tested.

Sensitization

Conclusion/Summary

Skin: Mixture.Respiratory: Mixture.

Mutagenicity

Conclusion/Summary : Mixture., Not fully tested.

Carcinogenicity

Conclusion/Summary : Mixture. Not fully tested.

Reproductive toxicity

Conclusion/Summary : Mixture., Not fully tested.

Teratogenicity

Conclusion/Summary : Mixture., Not fully tested.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Nickel titanium oxide	Category 1		
(NiTiO3)			

Aspiration hazard

Not available.

Information on the likely routes of :

Not available.

exposure

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.

8/14



SAFETY DATA SHEET

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 9 of 14 Revision Date 05/23/2016 Print Date 05/24/2016

Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No specific data.Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Mixture., Not fully tested.

General:No known significant effects or critical hazards.Carcinogenicity:No known significant effects or critical hazards.Mutagenicity:No known significant effects or critical hazards.Teratogenicity:No known significant effects or critical hazards.Developmental effects:No known significant effects or critical hazards.Fertility effects:No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure



SAFETY DATA SHEET

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 10 of 14 Print Date 05/24/2016 Revision Date 05/23/2016

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Remarks - Acute - Aquatic Chemicals are not readily available as they are bound within the polymer matrix.

invertebrates.:

Conclusion/Summary Chemicals are not readily available as they are bound within the

polymer matrix.

Persistence and degradability

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 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 Classification : Not regulated for transportation.

10/14



XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Page 11 of 14 Revision Date 05/23/2016 Print Date 05/24/2016

ICAO/IATA : Consult mode specific transport rules

IMO/IMDG (maritime) : Consult mode specific transport rules

Section 15. Regulatory information

U.S. Federal regulations

: United States - TSCA 12(b) - Chemical export notification: The following components are listed: 1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1,2,2-tetrafluoroethene

United States - TSCA 4(a) - Final Test Rules: Listed 1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1,2,2-tetrafluoroethene

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 5(a)2 - Final significant new use rules: Not

United States - TSCA 5(a)2 - 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 6 - Proposed 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) - Chemical Data Reporting (CDR): Not determined

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 307 - Priority pollutants: Listed Phthalocyanine green

Nickel titanium oxide (NiTiO3)

Cobalt titanate green spinel (C.I. Pigment Green 50)

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

release prevention - Toxic substances: Not listed

United States - Department of commerce - Precursor chemical:



SAFETY DATA SHEET

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Revision Date 05/23/2016 Page 12 of 14 Print Date 05/24/2016

Not listed

Clean Air Act Section 112(b)

Hazardous Air Pollutants (HAPs)

Listed

Clean Air Act Section 602 Class I

Not listed

Substances

Clean Air Act Section 602 Class II : Not listed

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

Name	%	Classification
Nickel titanium oxide (NiTiO3)	1 - 3	AH, CH

SARA 313

	Product name	CAS number	%
Form R - Reporting	Cobalt titanate green spinel	68186-85-6	10 - 25
requirements	(C.I. Pigment Green 50)		
	Nickel titanium oxide	12035-39-1	1 - 3
	(NiTiO3)		
Supplier notification	Nickel titanium oxide	12035-39-1	1 - 3
	(NiTiO3)		
	Cobalt titanate green spinel	68186-85-6	10 - 25
	(C.I. Pigment Green 50)		

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts: None of the components are listed.New York: None of the components are listed.New Jersey: The following components are listed:

Cobalt titanate green spinel (C.I. Pigment Green 50)



SAFETY DATA SHEET

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Revision Date 05/23/2016

Page 13 of 14 Print Date 05/24/2016

Nickel titanium oxide (NiTiO3)

Phthalocyanine green

Pennsylvania The following components are listed:

Cobalt titanate green spinel (C.I. Pigment Green 50)

Nickel titanium oxide (NiTiO3)

Phthalocyanine green

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

United States inventory (TSCA 8b) All components are listed or exempted.

At least one component is not listed in DSL but all such components Canada inventory

are listed in NDSL.

International regulations

International lists Australia inventory (AICS): All components are listed or exempted.

Taiwan inventory (CSNN): All components are listed or exempted.

Malaysia Inventory (EHS Register): Not determined. **EINECS:** All components are listed or exempted.

Japan inventory: Not determined.

China inventory (IECSC): All components are listed or exempted.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components

are listed or exempted.

Philippines inventory (PICCS): Not determined.

Chemical Weapons Convention

List Schedule I Chemicals

Chemical Weapons Convention

List Schedule II Chemicals

Chemical Weapons Convention

List Schedule III Chemicals

Not listed

Not listed

Not listed

Section 16. Other information

History

Date of printing 05/24/2016 Date of issue/Date of revision 05/23/2016 Date of previous issue 05/19/2016 Version 1.0

Key to abbreviations ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor



SAFETY DATA SHEET

XRU-2301 FEP 1108 ULTRAHIGH STR GREEN

Version Number 1.0 Revision Date 05/23/2016 Page 14 of 14 Print Date 05/24/2016

GHS = Globally Harmonized System of Classification and Labelling of

Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

 $LogPow = logarithm\ of\ the\ octanol/water\ partition\ coefficient$

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine

pollution)

UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named 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.