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SAFETY DATA SHEET

XRU-1997 ETFE COPP88AX COMP PREC BLUE

Section 1. Identification		
GHS product identifier Chemical name CAS number Other means of identification Product type	: : :	XRU-1997 ETFE COPP88AX COMP PREC BLUE Mixture Mixture CC10294092 solid
<u>Relevant identified uses of the subs</u> Product use	stance :	e or mixture and uses advised against 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.



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GHS label elements		
Signal word Hazard statements	:	No signal word. No known significant effects or critical hazards.
Precautionary statements		
	:	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	:	CC10294092

CAS number/other identifiers

Ingredient name	%	CAS number
Cobalt aluminate blue spinel (C.I. Pigment Blue 28)	>= 5 - <= 10	1345-16-0
Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)	>= 5 - <= 10	68187-11-1

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



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		upper and lower eyelids. Check for and remove any contact lenses.
		Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable
		for breathing. Get medical attention if symptoms occur.
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, acute and delayed

Potential acute health effects

:	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.
:	No specific data.
	:::::::::::::::::::::::::::::::::::::::

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Specific treatments	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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

Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO_2 .
Unsuitable extinguishing media	:	None known.



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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 halogenated compounds metal oxide/oxides
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	:	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 containme	nt ai	nd 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 licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage



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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
Cobalt aluminate blue spinel (C.I. Pigment Blue 28)	ACGIH TLV (1994-09-01) Inhalation sensitizer Skin sensitizer TWA 0.02 mg/m3 (CO)
Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)	ACGIH TLV (1994-09-01) Inhalation sensitizer Skin sensitizer TWA 0.02 mg/m3 (CO) NIOSH REL (2010-09-01) TWA 0.5 mg/m3 (as Cr) OSHA PEL 1989 (1989-03-01) TWA 0.5 mg/m3 (as Cr) OSHA PEL (1993-06-30) TWA 0.5 mg/m3 (as Cr)

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



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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

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 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	:	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	:	BLUE
Odor	:	Not available.
Odor threshold	:	Not available.
рН	:	Not available.
Melting point	:	Not available.

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Boiling point	:	Not available.
Flash point	:	Not applicable.
Burning time	:	Not available.
Burning rate	:	Not available.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive	:	Lower: Not applicable.
(flammable) limits		Upper: Not applicable.
Vapor pressure	:	Not available.
Vapor density	:	Not applicable.
Relative density	:	Not available.
Solubility		Not available.
Solubility in water	:	Not available.
Partition coefficient: n-	-	Not applicable.
octanol/water	•	riot applicable.
Auto-ignition temperature	:	Not applicable.
Decomposition temperature	:	Not available.
SADT		Not available.
Viscosity		Dynamic: Not available.
		Kinematic: Not applicable.
<u>Aerosol product</u>		
Heat of combustion	:	Not available.
Ignition distance	:	Not available.
Enclosed space ignition - Time		Not available.
equivalent	-	
Enclosed space ignition -	:	Not available.
Deflagration density	-	· · · · · · · · · · · · · · · · · · ·
Flame height	:	Not available.
Flame duration		Not available.
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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
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Possibility of hazardous reactions	:	Section 7). Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid Incompatible materials	:	Keep away from extreme heat and oxidizing agents. Keep away from strong acids.
Hazardous decomposition products	:	Oxidizer. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity		
Conclusion/Summary	:	Mixture.Not fully tested.
Irritation/Corrosion		
Conclusion/Summary Skin	:	Mixture.Not fully tested.
Eyes	:	Mixture.Not fully tested.
Respiratory	:	Mixture.Not fully tested.
<u>Sensitization</u>		
Conclusion/Summary Skin Respiratory	:	Mixture.Not fully tested. Mixture.Not fully tested.
<u>Mutagenicity</u>		
Conclusion/Summary	:	Mixture.Not fully tested.
Carcinogenicity		
Conclusion/Summary	:	Mixture.Not fully tested.
Classification		

Product/ingredient name	OSHA	IARC	NTP
C.I. Pigment Blue 28 An	-	2B	Reasonably anticipated to be a human carcinogen.
inorganic pigment that is			
the reaction product of			
high temperature			



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calcination in which cobalt (II) oxide and aluminum oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of spinel. Its composition may include any one or a combination of the modifiers MgO, ZnO, Li2O, or TiO2.		32B	Reasonably anticipated to be a human carcinogen.		
Reproductive toxicity					
Conclusion/Summary	: N	/lixture.Not fully t	ested.		
<u>Teratogenicity</u>					
Conclusion/Summary	: N	/lixture.Not fully t	ested.		
Specific target organ toxicity (single exposure) Not available.					
Specific target organ toxicity (repeated exposure) Not available.					
Aspiration hazard Not available.					
Information on the likely routes of exposure	n on the likely routes of : Not available.				
Potential acute health effects					
Eye contact Inhalation Skin contact Ingestion	: N : N				
Symptoms related to the physical,	<u>chemical</u>	and toxicologica	<u>l characteristics</u>		
Eye contact Inhalation Skin contact Ingestion	: N : N	Io specific data. Io specific data. Io specific data. Io specific data.			



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Delayed and immediate effects and 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.
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. No known significant effects or critical hazards.
Numerical measures of toxicity		
<u>Acute toxicity estimates</u> 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

Result	Species	Exposure
COMP PREC BLUE		
Chemicals are not readily available	e as they are bound wi	thin the polymer matrix.
	COMP PREC BLUE	



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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 Not available.		
<u>Mobility in soil</u>		
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



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Section 14. Transport information

U.S.DOT 49CFR Ground/Air/Water	:	Not regulated for transportation.
International Air ICAO/IATA	:	Consult mode specific transport rules
International Water IMO/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 5(a)2 - Final significant new use rules: Not listed
	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 Aluminum chromium cobalt oxide (C.I.
	Pigment Blue 36)
	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
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United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed United States - Department of commerce - Precursor chemical: Not listed

Clean Air Act Section 112(b)	:	Listed
Hazardous Air Pollutants (HAPs) 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)		Not listed
DEA List II Chemicals (Essential Chemicals)	•	Not listed

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
C.I. Pigment Blue 28 An	>= 5 - <= 10	CARCINOGENICITY - Category 2
inorganic pigment that is the		
reaction product of high		
temperature calcination in		
which cobalt (II) oxide and		
aluminum oxide in varying		
amounts are homogeneously		
and ionically interdiffused		
to form a crystalline matrix		
of spinel. Its composition		
may include any one or a		
combination of the		
modifiers MgO, ZnO, Li2O,		
or TiO2.		
C.I. Pigment Blue 36	>= 5 - <= 10	CARCINOGENICITY - Category 2

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Form R - Reporting requirements

Product name	CAS number	%
Cobalt aluminate blue spinel (C.I. Pigment Blue 28)	1345-16-0	>= 5 - < 10
Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)	68187-11-1	>= 3 - < 7

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 aluminate blue spinel (C.I. Pigment Blue 28)
		Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)
Pennsylvania	:	The following components are listed:
		Cobalt aluminate blue spinel (C.I. Pigment Blue 28)
		Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)
<u>California Prop. 65</u>		
This product does not require a Safe I		
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>		
Australia	:	Not determined.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): All components are listed or exempted.
		Japan inventory (ISHL): Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	All components are listed or exempted.
Thailand	:	All components are listed or exempted.
Turkey	:	Not determined.

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United States Viet Nam 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		0

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

History	
Date of printing	: 06/29/2023
Date of issue/Date of revision	: 06/27/2023
Date of previous issue	: 10/26/2020
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
	MARPOL = 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 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



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materials or in any process, unless specified in the text.