PolyOne Colorant Chromatics

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SAFETY DATA SHEET

XRU-2469 ECA4000 C.C. HIGH STR BLUE

Section 1. Identification		
GHS product identifier Chemical name CAS number Other means of identification Product type	: : : : : : : : : : : : : : : : : : : :	XRU-2469 ECA4000 C.C. HIGH STR BLUE Mixture Mixture CC10259538 solid
<u>Relevant identified uses of the subs</u> Product use	tance :	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
Emergency telephone number (with hours of operation)	:	+1 800 242 2296 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	:	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	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	CC10259538

CAS number/other identifiers

Ingredient name	%	CAS number
Titanium dioxide	0.1 - 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.

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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. 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 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.
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 atte	<u>ntio</u>	n and special treatment needed, if necessary
Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
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. Firefighting measures

Extinguishing media

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	:	No specific fire or explosion hazard.
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chemical Hazardous thermal decomposition products	:	No specific data.
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	ent a	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

:

Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8).

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Advice on general occupational hygiene	:	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)
		PEL: Permissible Exposure Level 10 mg/m3 Form: Total dust
		OSHA PEL (1993-06-30)
		PEL: Permissible Exposure Level 15 mg/m3 Form: Total dust
		NIOSH REL (1994-06-01)
		ACGIH TLV (1996-05-18)
		TLV-TWA: Threshold Limit Value - Time weighted average PEL:
		Permissible Exposure Level 10 mg/m3
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
Environmental exposure controis		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.
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Individual protection measures		
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical
		products, before eating, smoking and using the lavatory and at the end

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Eye/face protection	:	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	:	GREEN
Odor	:	Not available.
Odor threshold	:	Not available.
рН	:	Not available.
Melting point	:	Not available.
Boiling point	:	Not available.
Flash point	:	Not available.
Burning time	:	Not available.
Burning rate	:	Not available.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive	:	Lower: Not available.
(flammable) limits		Upper: Not available.

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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

Product/ingredient name	Result	Species	Dose	Exposure
Titanium dioxide				
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-
Conclusion/Summary	• Mixtu	ire Not fully tested		<u>.</u>

Conclusion/Summary

Mixture.Not fully tested.

Irritation/Corrosion

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Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide	Skin - Mild	Human		72 hrs	-
Conclusion/Service-	irritant				
Conclusion/Summary Skin	: N	Aixture.Not fu	ully tested		
Eyes		Aixture.Not fu			
Respiratory		Aixture.Not fu			
Sensitization					
Conclusion/Summary					
Skin		Aixture.Not fu	•		
Respiratory	: N	Aixture.Not fu	illy tested.		
Mutagenicity					
Conclusion/Summary	: N	Aixture.Not fu	Illy tested.		
Carcinogenicity					
Conclusion/Summary	: N	Aixture.Not fu	Illy tested.		
<u>Reproductive toxicity</u>					
Conclusion/Summary	: N	Aixture.Not fu	Illy tested.		
Teratogenicity					
Conclusion/Summary	: N	Aixture.Not fu	Illy tested.		
Specific target organ toxicity Not available.	(single exposi	ure)			
Specific target organ toxicity Not available.	(repeated exp	<u>oosure)</u>			
Aspiration hazard Not available.					
Information on likely routes of exposure	of : N	Not available.			
Potential acute health effects					
Eve contact		Jo known sigr	uficant offect	s or critical hazards	,
Eye contact Inhalation				s or critical hazards	
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Skin contact Ingestion	:	No known significant effects or critical hazards. No known significant effects or critical hazards.
Symptoms related to the physical, che	emic	cal and toxicological characteristics
Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.
<u>Delayed and immediate effects as wel</u> <u>Short term exposure</u>	<u>l as</u>	chronic effects from short and long-term exposure
Potential immediate effects Potential delayed effects	:	Not available. Not available.
Long term exposure		

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

:

:

:

:

:

:

:

Potential chronic health effects

Conclusion/Summary

General
Carcinogenicity
Mutagenicity
Teratogenicity
Developmental effects
Fertility effects

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Mixture.Not fully tested.

No known significant effects or critical hazards.

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Product/ingredient name	Result	Species	Exposure
Titanium dioxide			
	Acute LC50 > 1,000,000 μg/l	Fish - Fish	96 h
	Marine water		
	Acute LC50 > 1,000 mg/l Fresh water	Fish - Fish	96 h
	Acute LC50 13 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 6.5 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 3 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 15.9 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 3.6 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 11 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 13.4 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute EC50 27.8 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 19.3 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 35.306 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
XRU-2469 ECA4000 C.C. HI			
Remarks - Acute - Aquatic invertebrates.:	Chemicals are not readily available a	as they are bound within the	e polymer matrix.
Conclusion/Summary	: Chemicals are not readil polymer matrix.	ly available as they are bou	nd within the
Persistence and degradabilit	<u>v</u>		
Conclusion/Summary	: Chemicals are not readil polymer matrix.	ly available as they are bou	nd within the
Conclusion/Summary	: Chemicals are not readil polymer matrix.	ly available as they are bou	nd within the

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		-	low

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Mobility in soil

:	Not available.
:	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.
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
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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: 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 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)		
DEA List II Chemicals (Essential	:	Not listed
Chemicals)		

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

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Classification

: Not applicable.

Composition/information on ingredients

Name	%	Classification
Titanium dioxide	0.1 - 1	СН

SARA 313

Not applicable.

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)
Pennsylvania	:	The following components are listed:
		Cobalt aluminate blue spinel (C.I. Pigment Blue 28)

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.
Canada inventory	:	Not determined.

International regulations

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Europe inventory	:	All components are listed or exempted.
Japan	:	Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.

Section 16. Other information

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

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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 are not required on SDSs 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 mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

History

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:	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
	Not available.
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Notice to reader

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