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SAFETY DATA SHEET

BLUE FRITOLAY

Section 1. Identification		
GHS product identifier	:	BLUE FRITOLAY
Chemical name	:	Mixture
CAS number	:	Mixture
Other means of identification	:	CC10217768
Product type	:	solid
Relevant identified uses of the subst	ance	or mixture and uses advised against
Product use	:	Industrial applications. Plastics.
~ ~ ~ ~ ~		
Supplier's details	:	POLYONE CORPORATION
		33587 Walker Road, Avon Lake, OH 44012
		1 (440) 930-1000 or 1 (866) POLYONE
Emergency telephone number	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure
(with hours of operation)		or accident).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. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. 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.

GHS label elements



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Signal word Hazard statements	:	No signal word. 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	:	CC10217768

CAS number/other identifiers

Ingredient name	%	CAS number
Titanium dioxide	5 - 10	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 comform 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.	f
Skin contact	: Flush contaminated skin with plenty of water. Remove contamir clothing and shoes. Get medical attention if symptoms occur.	ated
Ingestion	: Wash out mouth with water. Remove victim to fresh air and kee rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quan	ities
	of water to drink. Do not induce vomiting unless directed to do s medical personnel. Get medical attention if symptoms occur.	JUy
Most important symptoms/effect	medical personnel. Get medical attention if symptoms occur.	<i></i>
Most important symptoms/effect <u>Potential acute health effects</u>	medical personnel. Get medical attention if symptoms occur.	J Uy
	 medical personnel. Get medical attention if symptoms occur. <u>cute and delayed</u> No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. 	J Uy
<u>Potential acute health effects</u> Eye contact Inhalation	 medical personnel. Get medical attention if symptoms occur. cute and delayed No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. 	J Uy
<u>Potential acute health effects</u> Eye contact	 medical personnel. Get medical attention if symptoms occur. <u>cute and delayed</u> No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. 	J Uy
<u>Potential acute health effects</u> Eye contact Inhalation Skin contact	 medical personnel. Get medical attention if symptoms occur. cute and delayed No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. No known significant effects or critical hazards. 	J Uy
<u>Potential acute health effects</u> Eye contact Inhalation Skin contact Ingestion	 medical personnel. Get medical attention if symptoms occur. cute and delayed No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. No known significant effects or critical hazards. 	J Uy
Potential acute health effects Eye contact Inhalation Skin contact Ingestion Over-exposure signs/symptoms	 medical personnel. Get medical attention if symptoms occur. cute and delayed No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. No known significant effects or critical hazards. No known significant effects or critical hazards. 	J Uy
Potential acute health effects Eye contact Inhalation Skin contact Ingestion Over-exposure signs/symptoms Eye contact	 medical personnel. Get medical attention if symptoms occur. cute and delayed No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. 	J Uy

Notes to physician Specific treatments	 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. 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



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Extinguishing media

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

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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
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
	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
Appropriate engineering controls	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,
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	filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
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 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 :	
Other skin protection :	
Respiratory protection :	

Section 9. Physical and chemical properties

Appearance

Physical state	:	solid [Pellets.]
Color	:	BLUE
Odor	:	Faint odor.
Odor threshold	:	Not available.
рН	:	Not available.
Melting point	:	Not available.

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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.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	Not available.
Solubility	:	Not available.
Solubility in water	:	insoluble in water.
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



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Product/ingredient name	Result	Species	Dose	Exposure
Titanium dioxide		· -		
	LC50 Inhalation		6.82 Mg/l	4 h
	LD50 Dermal	Rabbit	> 5,000 mg/	/kg -
Conclusion/Summary	: Miz	xture.Not fully t	ested.	
Irritation/Corrosion				
Conclusion/Summary				
Skin		xture.Not fully t		
Eyes		xture.Not fully t		
Respiratory	: Miz	xture.Not fully f	ested.	
Sensitization				
Conclusion/Summary				
Skin		xture.Not fully t		
Respiratory	: Miz	xture.Not fully 1	ested.	
Mutagenicity				
Conclusion/Summary	: Miz	xture.Not fully 1	ested.	
Carcinogenicity				
Conclusion/Summary Classification	: Miz	xture.Not fully	ested.	
Product/ingredient	OSHA	IARC	NTP	
name				
Titanium dioxide		2B		
<u>Reproductive toxicity</u>				
Conclusion/Summary	: Miz	xture.Not fully	ested.	
Teratogenicity				
Conclusion/Summary	: Miz	xture.Not fully	ested.	
Specific target organ toxici Not available.	ty (single exposure	<u>e)</u>		
Specific target organ toxici Not available.	ty (repeated expos	<u>sure)</u>		
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<u>Aspiration hazard</u> Not available.		
Information on the likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact Inhalation Skin contact	:	No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. No known significant effects or critical hazards.
Ingestion Symptoms related to the physical, cl	: hemi	No known significant effects or critical hazards.
Eye contact	:	No specific data.
Inhalation Skin contact Ingestion	::	No specific data. No specific data. No specific data.
-	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 Carcinogenicity Mutagenicity Teratogenicity Developmental effects Fertility effects	::	No known significant effects or critical hazards. No known significant effects or critical hazards.

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Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	
Titanium dioxide				
	Acute LC50 > 1,000,000 μg/l	Fish - Mummichog	96 h	
	Marine water			
	Acute LC50 > 1,000 mg/l Fresh	Fish - Fathead minnow	96 h	
	water			
	Acute LC50 13 mg/l Fresh water	Aquatic invertebrates. Water flea	48 h	
	Acute EC50 19.3 mg/l Fresh water	Aquatic invertebrates. Water flea	48 h	
	Acute EC50 27.8 mg/l Fresh water	Aquatic invertebrates. Water flea	48 h	
	Acute EC50 35.306 mg/l Fresh water	Aquatic invertebrates. Water flea	48 h	
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Remarks - Acute - Aquatic invertebrates.:	Chemicals are not readily available a	as they are bound within the	e polymer matrix.	
Conclusion/Summary	: Chemicals are not readily available as they are bound within the polymer matrix.			
Persistence and degradability	<u>v</u>			
Conclusion/Summary	: Chemicals are not readi polymer matrix.	ly available as they are bou	nd within the	
Conclusion/Summary	: Chemicals are not readi polymer matrix.	ly available as they are bou	nd within the	

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		352.00	low



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Mobility in soil

Soil/water partition coefficient:Not available.(KOC):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.
ICAO/IATA	:	Not classified as dangerous good under transport regulations.
IMO/IMDG (maritime)	:	Not classified as dangerous good under transport regulations.

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



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		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 Phthalocyanine blue
		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) Hazardous Air Pollutants (HAPs)	:	Not listed
Clean Air Act Section 602 Class I Substances	:	Not listed
Clean Air Act Section 602 Class II Substances	:	Not listed
DEA List I Chemicals (Precursor	:	Not listed

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.

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Composition/information on ingredients

Name	%	Classification		
Titanium dioxide	5 - 10	СН		
SARA 313 Not applicable.				
<u>State regulations</u> Massachusetts	: The following components are li Calcium carbonate Titanium dioxide	sted:		
New York	: None of the components are liste			
New Jersey	: The following components are li Calcium carbonate Titanium dioxide Phthalocyanine blue	sted:		
Pennsylvania	: The following components are li Calcium carbonate	sted:		
	Titanium dioxide			
	Phthalocyanine blue			
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 exe	empted.		
Canada inventory	: All components are listed or exe	empted.		
International regulations				
International lists	Taiwan inventory (CSNN): A Malaysia Inventory (EHS Reg EINECS: All components are li Japan inventory: All compone China inventory (IECSC): Al Korea inventory: All compone	isted or exempted. ents are listed or exempted. I components are listed or exempted. ents are listed or exempted. emicals (NZIOC): All components		
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exempted.

Chemical Weapons Convention	:	Not listed
List Schedule I Chemicals Chemical Weapons Convention	:	Not listed
List Schedule II Chemicals Chemical Weapons Convention	:	Not listed
List Schedule III Chemicals		

Section 16. Other information

<u>History</u>		
Date of printing	:	06/11/2015
Date of issue/Date of revision	:	06/10/2015
Date of previous issue	:	06/08/2015
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 $73/78$ = 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 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.