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SAFETY DATA SHEET

HK PEARL GREEN 2

Section 1. Identification		
GHS product identifier	:	HK PEARL GREEN 2
Chemical name	:	Mixture
CAS number	:	Mixture
Other means of identification	:	CC10223554
Product type	:	liquid
Relevant identified uses of the sub	ostance	or mixture and uses advised against
Product use	:	Industrial applications. Plastics.
Supplier's details	:	POLYONE CORPORATION
		ColorMatrix Group Inc.
		680 North Rocky River Drive, Berea, Ohio, 44017-1628, USA
		+1 216 622 0100
Emorgonov tolonhono numbor		CHEMTDEC 1 800 424 0300 (24hrs for spill look fire experime
Emergency telephone number (with hours of operation)	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
(when notices of operation)		or accounty.

Section 2. Hazards identification

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants 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. 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.

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	:	CC10223554

CAS number/other identifiers

Ingredient name	%	CAS number
Titanium dioxide	10 - 30	13463-67-7
Miscellaneous Compounds Distillates, petroleum, hydrotreated middle	5 - 10	Not available.

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



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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.
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.
Inhalation	: Exposure to decomposition products may cause a health hazard.
	Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symptoms	
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
Indication of immediate medical a	tention 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 (Sect	ion 11)

See toxicological information (Section 11)



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Section 5. Fire-fighting measures

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 Hazardous thermal decomposition products	:	In a fire or if heated, a pressure increase will occur and the container may burst. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides
Special protective actions for fire- fighters Special protective equipment 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. Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated
int-ingiturs		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).
Mathada and matarials for containing		,

Methods and materials for containment and cleaning up

Small spill :	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate
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waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Prevent
entry into sewers, water courses, basements or confined areas. Wash
spillages into an effluent treatment plant or proceed as follows.
Contain and collect spillage with non-combustible, absorbent material
e.g. sand, earth, vermiculite or diatomaceous earth and place in
container for disposal according to local regulations (see Section 13).
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

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)
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		TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 10 mg/m3
Appropriate engineering controls Environmental exposure controls	:	Good general ventilation should be sufficient to control worker 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		
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	:	Use a properly fitted, air-purifying or air-fed 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.



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Section 9. Physical and chemical properties

Appearance

Physical state	:	liquid [liquid]
Color	:	GREEN
Odor	:	Faint odor.
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.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	Not available.
Solubility	:	Not available.
Solubility in water	:	insoluble in water.
Partition coefficient: n- octanol/water	:	Not available.
		Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature SADT		Not available.
	:	
Viscosity	•	Dynamic: Not available. Kinematic: 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.



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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	n Rat - Male	6.82 Mg/l	4 h
	LD50 Dermal	Rabbit	> 5,000 mg	g/kg -
Miscellaneous Compounds D	istillates, petroleun	n, hydrotreated	middle	
Conclusion/Summary	: Miz	xture.Not fully	tested.	
Irritation/Corrosion				
Conclusion/Summary				
Skin	: Miz	xture.Not fully	tested.	
Eyes	: Miz	xture.Not fully	tested.	
Respiratory	: Miz	xture.Not fully	tested.	
Sensitization				
Conclusion/Summary				
Skin		xture.Not fully		
Respiratory	: Miz	xture.Not fully	tested.	
Mutagenicity				
Conclusion/Summary	: Miz	xture.Not fully	tested.	
Carcinogenicity				
Conclusion/Summary	: Miz	xture.Not fully	tested.	
Classification	1 ·		I	
Product/ingredient	OSHA	IARC	NTP	
name				
Titanium dioxide		2B		



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Reproductive toxicity			
Conclusion/Summary	:	Mixture.Not	fully tested.
Teratogenicity			
Conclusion/Summary	:	Mixture.Not	fully tested.
Specific target organ toxicity (single Not available.	exp	<u>osure)</u>	
Specific target organ toxicity (repeat Not available.	ted e	exposure)	
Aspiration hazard			
Product/ingredient name			Result
Miscellaneous Compounds Distillates, hydrotreated middle	petro	oleum,	ASPIRATION HAZARD - Category 1
Information on the likely routes of exposure	:	Not available	
Potential acute health effects			
Eye contact Inhalation	:	Exposure to c	gnificant effects or critical hazards. lecomposition products may cause a health hazard. ts may be delayed following exposure.
Skin contact Ingestion	:	No known sig	gnificant effects or critical hazards. gnificant effects or critical hazards.
Symptoms related to the physical, ch	emi	cal and toxicol	ogical characteristics
Eye contact	:	No specific d	
Inhalation	:	No specific d	
Skin contact	:	No specific d	
Ingestion	•	No specific d	ata.
Delayed and immediate effects and a	lso c	chronic effects	from short and long term exposure
Short term exposure			
Potential immediate effects	:	Not available	
Potential delayed effects	:	Not available	
Long term exposure			



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Potential immediate effects Potential delayed effects	:	Not available. Not available.
Potential chronic health effects		
Conclusion/Summary	:	Mixture.Not fully tested.
General Carcinogenicity Mutagenicity Teratogenicity	:	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.
Developmental effects Fertility effects	:	No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Inhalation (dusts and mists)	22.6 mg/l

Section 12. Ecological information

Toxicity

Acute LC50 > 1,000,000 μg/l Marine water Acute LC50 > 1,000 mg/l Fresh	Fish - Mummichog	96 h
Marine water		96 h
Acute LC50 > 1.000 mg/l Fresh		
riedice Leese > 1,000 mg/111cbit	Fish - Fathead minnow	96 h
water		
Acute LC50 13 mg/l Fresh water	Aquatic invertebrates.	48 h
	Water flea	
Acute EC50 19.3 mg/l Fresh water	Aquatic invertebrates.	48 h
	Water flea	
Acute EC50 27.8 mg/l Fresh water	Aquatic invertebrates.	48 h
	Water flea	
Acute EC50 35.306 mg/l Fresh	Aquatic invertebrates.	48 h
water	Water flea	
	Acute LC50 13 mg/l Fresh water Acute EC50 19.3 mg/l Fresh water Acute EC50 27.8 mg/l Fresh water Acute EC50 35.306 mg/l Fresh	Acute LC50 13 mg/l Fresh waterAquatic invertebrates. Water fleaAcute EC50 19.3 mg/l Fresh waterAquatic invertebrates. Water fleaAcute EC50 27.8 mg/l Fresh waterAquatic invertebrates. Water fleaAcute EC50 35.306 mg/l Fresh waterAquatic invertebrates. Water flea

Conclusion/Summary

Not available.



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Persistence and degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		352.00	low

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.
ICAO/IATA	:	Not classified as dangerous good under transport regulations.
IMO/IMDG (maritime)	:	Not classified as dangerous good under transport regulations.



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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) - Proposed test rules: Not listed United States - TSCA 4(a) - Proposed test rules: Not listed United States - TSCA 4(a) - Proposed test rules: Not listed United States - TSCA 4(a) - Proposed significant new use rules: Not listed United States - TSCA 5(a) - Proposed significant new use rules: Not listed United States - TSCA 5(a) - Proposed significant new use rules: Not listed United States - TSCA 5(e) - Substances consent order: Not listed United States - TSCA 6 - Final risk management: Not listed United States - TSCA 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(c) - Significant adverse reaction (SAR): 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 Zinc ferrite brown spinel (C.I. Pigment Yellow 119) United States - EPA Clean air act (CAA) section 311 - Hazardous substances: Not listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable 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 Chemicals)	:	Not listed

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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
Titanium dioxide	10 - 30	СН
Miscellaneous Compounds	5 - 10	AH
Distillates, petroleum,		
hydrotreated middle		

SARA 313

	Product name	CAS number	%	
Form R - Reporting	Zinc ferrite brown spinel	68187-51-9	1 - 5	
requirements	(C.I. Pigment Yellow 119)			
Supplier notification	Zinc ferrite brown spinel	68187-51-9	1 - 5	
	(C.I. Pigment Yellow 119)			

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	:	The following components are listed:
		Mica
		Titanium dioxide
New York	:	None of the components are listed.
New Jersey	:	The following components are listed:
		Mica
		Titanium dioxide
		Zinc ferrite brown spinel (C.I. Pigment Yellow 119)
Pennsylvania	:	The following components are listed:
·		Titanium dioxide
		Zinc ferrite brown spinel (C.I. Pigment Yellow 119)
California Prop. 65		

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

United States inventory (TSCA 8b)	:	Not determined.
Canada inventory	:	Not determined.
International regulations		
International lists	:	 Australia inventory (AICS): Not determined. Taiwan inventory (CSNN): Not determined. Malaysia Inventory (EHS Register): Not determined. EINECS: Not determined. Japan inventory: Not determined. China inventory (IECSC): Not determined. Korea inventory: Not determined. New Zealand Inventory of Chemicals (NZIoC): Not determined. Philippines inventory (PICCS): Not determined.
Chemical Weapons Convention List Schedule I Chemicals	:	Not listed
Chemical Weapons Convention List Schedule II Chemicals	:	Not listed
Chemical Weapons Convention List Schedule III Chemicals	:	Not listed

Section 16. Other information

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<u>History</u>		
Date of printing	:	08/08/2015
Date of issue/Date of revision	:	08/07/2015
Date of previous issue	:	00/00/0000
Version	:	1.0
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)
		$\hat{U}N = United Nations$
References	:	Not available.



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Notice to reader

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