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SAFETY DATA SHEET

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Section 1. Identification		
GHS product identifier	:	DB4049 WHITE
Chemical name		Mixture
CAS number	:	Mixture
Other means of identification	:	FO20014191
Product type	:	liquid
<u>Relevant identified uses of the subs</u> Product use	stance :	or mixture and uses advised against 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 (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 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		
Signal word	:	No signal word.
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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	:	FO20014191

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.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

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Skin contact	Flush contaminated skin with plenty of water. Remove con	
Ingestion	clothing and shoes. Get medical attention if symptoms occu Wash out mouth with water. Remove victim to fresh air and rest in a position comfortable for breathing. If material has swallowed and the exposed person is conscious, give small of water to drink. Do not induce vomiting unless directed to medical personnel. Get medical attention if symptoms occu	d keep at been quantities o do so by
Most important symptoms/effects, a	and delayed	
Potential acute health effects		
Eye contact	No known significant effects or critical hazards.	
Inhalation	No known significant effects or critical hazards.	
Skin contact	No known significant effects or critical hazards.	
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 at	on and special treatment needed, if necessary	
Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhale	ed.
Specific treatments	No specific treatment.	

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 $\rm CO_2$. None known.
Specific hazards arising from the chemical	:	In a fire or if heated, a pressure increase will occur and the container may burst.

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Hazardous thermal decomposition products	:	May emit Hydrogen Chloride (HCl). Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds
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 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 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

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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

IA PEL 1989 (1989-03-01) Permissible Exposure Level 10 mg/m3 Form: Total dust IA PEL (1993-06-30) Permissible Exposure Level 15 mg/m3 Form: Total dust SH REL (1994-06-01) CIH TLV (1996-05-18)
-TWA: Threshold Limit Value - Time weighted average PEL: issible Exposure Level 10 mg/m3
d general ventilation should be sufficient to control worker sure to airborne contaminants.
ssions from ventilation or work process equipment should be
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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	:	liquid [liquid]
Color	:	WHITE
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 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	:	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	:	Avoid contact with acetal homopolymers and acetyl homopolymers during processing.
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	Rat - Male	6.82 Mg/l	4 h
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-
Conclusion/Summann	• Minute	wa Nat falls tastad		

Conclusion/Summary

: Mixture.Not fully tested.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide	Skin - Mild irritant	Human		72 hrs	-
Conclusion/Summary	-				
Skin		/lixture.Not fu			
Eyes		/lixture.Not fu			
Respiratory	: N	/lixture.Not fu	lly tested.		
Sensitization					
Conclusion/Summary					
Skin		/lixture.Not fu			
Respiratory	: N	/lixture.Not fu	lly tested.		
Mutagenicity					
Conclusion/Summary	: N	/lixture.Not fu	lly tested.		
Carcinogenicity					
Conclusion/Summary	: N	/lixture.Not fu	lly tested.		
<u>Reproductive toxicity</u>					
Conclusion/Summary	: N	/lixture.Not fu	lly tested.		
<u>Teratogenicity</u>					
Conclusion/Summary	: N	/lixture.Not fu	lly tested.		
Specific target organ toxici Not available.	ty (single exposi	<u>ıre)</u>			
Specific target organ toxici Not available.	ty (repeated exp	oosure)			
Aspiration hazard					
		0/4	-		

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Not available.

Section 12. Ecological information

Toxicity

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.	48 h
		Daphnia	
	Acute LC50 6.5 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 3 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 15.9 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 3.6 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 11 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 13.4 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute EC50 27.8 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute EC50 19.3 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute EC50 35.306 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	

Conclusion/Summary

: Not available.

Persistence and degradability

Conclusion/Summary

: Not available.

Bioaccumulative potential



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Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		-	low

Mobility in soil

P	:	Not available.
(KOC) 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
		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

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United States - TSCA 12(b) - Chemical export notification: None **U.S. Federal regulations** : 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): Listed 4-Nonylphenol, branched 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 2-Ethylhexanoic acid zinc salt **Miscellaneous Zinc Compounds** United States - EPA Clean water act (CWA) section 311 -Hazardous substances: 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) Not 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 Not listed **DEA List I Chemicals (Precursor** • Chemicals) **DEA List II Chemicals (Essential** Not listed : **Chemicals**)

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US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

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:
		Ethene, chloro-, homopolymer
Pennsylvania	:	None of the components are listed.
<u>California Prop. 65</u>		
WARNING: This product contains a cl	nemi	cal known to the State of California to cause cancer.
United States inventory (TSCA 8b)	:	All components are listed or exempted.
Canada inventory	:	At least one component is not listed in DSL but all such components are listed in NDSL.
International regulations		
Inventory list		
Australia	:	Not determined.
Canada	:	At least one component is not listed in DSL but all such components
		are listed in NDSL.
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.

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United States

All components are listed or exempted.

Section 16. Other information

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

Health	*	1
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 Date of printing 05/23/2017 Date of issue/Date of revision 05/22/2017 : Date of previous issue 04/14/2017 : Version 1.6 : ATE = Acute Toxicity Estimate Key to abbreviations 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. References

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.

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