MATERIAL SAFETY DATA SHEET **DB2302 RED**

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone Emergency telephone number	:	Product Stewardship (770) 590-3500 x.3563 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	DB2302 RED
Product code	:	FO00003671
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Titanium dioxide	13463-67-7	0.1 - 1

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

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.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:	: Inhalation, Skin contact, Ingestion
Acute exposure	
Inhalation	: Inhalation of airborne droplets may cause irritation of the respiratory tract.
Ingestion	: May be harmful if swallowed.
Eyes	: May cause eye/skin irritation.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.
Medical Conditions Aggravated by Exposure:	: None known.



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	4. FIRST AID MEASURES
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases o doubt seek medical advice.
Ingestion	: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.
Eyes	: Rinse immediately with plenty of water for at least 15 minutes. If ey irritation persists, seek medical attention.
Skin	: Wash off with soap and plenty of water. If skin irritation persists see medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: No data available
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 No data available No data available Not applicable Carbon dioxide blanket, water spray, dry powder, foam. Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) unde fire conditions. Carbon dioxide (CO2), carbon monoxide (CO), oxide of nitrogen (NOx), other hazardous materials, and smoke are all possible. ACCIDENTAL RELEASE MEASURES
Personal precautions	: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
Environmental precautions	: The product should not be allowed to enter drains, water courses or th soil. Should not be released into the environment.
Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binde universal binder, sawdust). Package all material in appropriate container for disposal. Refer to Section 13 of this MSDS for proper disposal methods.
	7. HANDLING AND STORAGE
Handling	: Heat only in areas with appropriate exhaust ventilation. Processing



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	Р	ume condensates may contain eriodically clean hoods, duct ccumulation of these materia	s, and other surfaces t	
Storage		eep containers dry and tight nd contamination. Store in a		sture absorption
8. F	EXPOSURE	CONTROLS / PERSONA	L PROTECTION	
Respiratory protection	· N	o personal respiratory protection	ctive equipment norm	ally required
				any required.
Eye/Face Protection		afety glasses with side-shield	18.	
Hand protection	: P	rotective gloves.		
Skin and body protection	: L	ong sleeved clothing.		
Additional Protective Measures	: S	afety shoes.		
General Hygiene Considerations		andle in accordance with gov Vash hands before breaks and		
Engineering measures		leat only in areas with appropriate exhaust ventilatio		ion. Provide
Exposure limit(s)				
Components	Value	Exposure time	Exposure type	List:
Componento				
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):		ACGIH
Titanium dioxide	10 mg/m3 15 mg/m3		Total dust.	
Titanium dioxide		(TWA):		OSHA Z1
Titanium dioxide	15 mg/m3 20 mg/m3	(TWA): PEL: Short Term Exposure Limi	t as Ti	OSHA Z1
Titanium dioxide	15 mg/m3 20 mg/m3 9. PHYSIC	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PR	t as Ti ROPERTIES	OSHA Z1 MX OEL
Titanium dioxide	15 mg/m3 20 mg/m3 9. PHYSIC : liqui	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PE d Evag	t as Ti ROPERTIES poration rate :	OSHA Z1 MX OEL
Titanium dioxide	15 mg/m3 20 mg/m3 9. PHYSIC : liqui : Visc	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PE d Evap ous, liquid Spec	t as Ti ROPERTIES Doration rate : ific Gravity: :	OSHA Z1 MX OEL Not established Not determined
Titanium dioxide Form Appearance Color	15 mg/m3 20 mg/m3 9. PHYSIC : liqui : Visc : RED	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PF d Evap ous, liquid Spec Bulk	t as Ti ROPERTIES poration rate : ific Gravity: : density :	Not established Not determined Not applicable
Titanium dioxide Form Appearance Color Odor	15 mg/m3 20 mg/m3 9. PHYSIC : liqui : Visc : RED : Very	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PE d Evap ous, liquid Spec Bulk faint Vapo	t as Ti ROPERTIES poration rate : ific Gravity: : density : pr pressure :	Not established Not determined Not determined Not determined
Titanium dioxide Titanium dioxide Form Appearance Color Odor Melting point/range	15 mg/m3 20 mg/m3 9. PHYSIC : liqui : Visc : RED : Very : Not :	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PR d Evap ous, liquid Spec b Bulk faint Vapo applicable Vapo	t as Ti ROPERTIES poration rate : ific Gravity: : density :	Not established Not determined Not determined Not determined Not determined Not determined
Titanium dioxide Form Appearance Color Odor	15 mg/m3 20 mg/m3 9. PHYSIC : liqui : Visc : RED : Very : Not : Not	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PE d Evap ous, liquid Spec Bulk faint Vapo	t as Ti ROPERTIES poration rate : ific Gravity: : density : pr pressure :	Not established Not determined Not determined Not determined
Titanium dioxide Titanium dioxide Form Appearance Color Odor Melting point/range Boiling Point:	15 mg/m3 20 mg/m3 9. PHYSIC : liqui : Visc : RED : Very : Not : : Not : : Imm	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PF d Evap ous, liquid Spec b Bulk faint Vapo applicable PH	t as Ti ROPERTIES poration rate : ific Gravity: : density : por pressure : pour density : :	Not established Not determined Not determined Not determined Not determined Not determined
Titanium dioxide Titanium dioxide Form Appearance Color Odor Melting point/range Boiling Point:	15 mg/m3 20 mg/m3 9. PHYSIC : liqui : Visc : RED : Very : Not : Imm 10. §	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PF d Evap ous, liquid Spec b Bulk faint Vapo applicable pH scible Scible	t as Ti ROPERTIES poration rate : ific Gravity: : density : por pressure : pour density : :	Not established Not determined Not determined Not determined Not determined Not determined
Titanium dioxide Form Appearance Color Odor Melting point/range Boiling Point: Water solubility	15 mg/m3 20 mg/m3 9. PHYSIC : liqui : Visc : RED : Very : Not : Imm 10. §	(TWA): PEL: Short Term Exposure Limi (STEL): CAL AND CHEMICAL PE d Evap ous, liquid Spec b Bulk r faint Vapo applicable pH iscible STABILITY AND REACT	t as Ti ROPERTIES poration rate : ific Gravity: : density : por pressure : pour density : :	Not established Not determined Not determined Not determined Not determined Not determined



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Hazardous Polymerization	:	Will not occur.
Conditions to avoid	:	Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.
Incompatible Materials	:	Incompatible with strong acids and oxidizing agents., Avoid contact with acetal homopolymers and acetal copolymers during processing.
Hazardous decomposition products	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 °C (350 °F), after 10 minutes at 204 °C (400 °F), and within 5 minutes at 232 °C (450 °F).
	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.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
13463-67-7	Titanium dioxide	no	2B	no

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

2A - The component is probably carcinogenic to humans.

2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

1 - The component is known to be a human carcinogen.

2 - The component is reasonably anticipated to be a human carcinogen.

12. ECOLOGICAL INFORMATION

Persistence and degradability	:	Not readily biodegradable.
Environmental Toxicity	:	Environmental toxicity has not been established for this mixture as a whole.
Bioaccumulation Potential	:	No data available



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Product : Where possible recycling is preferred to disposal or incineration. Tigenerator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. Contaminated packaging : Recycling is preferred when possible. The generator of waste materia has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. Contaminated packaging : Recycling is preferred when possible. The generator of waste materia has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. U.S. DOT Classification : Refer to specific regulation. ICAO/IATA (air) : Refer to specific regulation. IMO / IMDG (maritime) : Refer to specific regulation. US Regulations: OSHA Status OSHA Status : Classified as hazardous based on components. TSCA Status : All components of this product are listed on or exempt from the TSC Inventory. US. EPA CERCLA Hazardous Substances (40 CFR 302) Not applicable SARA Title III Section 302 Extremely Hazardous Substance Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation.		13. DISPOSAL CONSIDERATIONS
has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. U.S. DOT Classification : Refer to specific regulation. ICAO/IATA (air) : Refer to specific regulation. IMO / IMDG (maritime) : Refer to specific regulation. IMO / IMDG (maritime) : Refer to specific regulation. US Regulations: OSHA Status : Classified as hazardous based on components. TSCA Status : All components of this product are listed on or exempt from the TSC Inventory. US. EPA CERCLA Hazardous Substances (40 CFR 302) Not applicable SARA Title III Section 302 Extremely Hazardous Substance Unless specific chemicals are identified under this section, this product is Not Applicable under this regul	Product	: Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with
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ICAO/IATA (air) : Refer to specific regulation. IMO / IMDG (maritime) : Refer to specific regulation. US Regulations: OSHA Status : Classified as hazardous based on components. TSCA Status : All components of this product are listed on or exempt from the TSC Inventory. US. EPA CERCLA Hazardous Substances (40 CFR 302) Not applicable SARA Title III Section 302 Extremely Hazardous Substance Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation.		14. TRANSPORT INFORMATION
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	SARA Title III Section 302 I	Extremely Hazardous Substance
	Unless specific chemicals are	e identified under this section, this product is Not Applicable under this regula
SARA Title III Section 313 Toxic Chemicals:	SARA Title III Section 313 7	Foxic Chemicals:

<u>PolyOne</u>

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Canadian Regulations:

Chemical Name			CAS-No.	Weight %	NPRI ID#
Miscellaneous Zinc Compoun	ds		Not Available	0.10 - 1.00	241
WHMIS Classification	:	Not controlled.			
WINNIS Classification	•	Not controlled.			
DSL	:		of this product are (DSL) or are exem		n Domestic
ational Inventories:					
Australia AICS	:	Not determined			
China IECS	:	Not determined			
Europe EINECS	:	Listed			
Japan ENCS	:	Not determined			
Korea KECI	:	Not determined			
Philippines PICCS	•	Not determined			

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.