### MATERIAL SAFETY DATA SHEET CHOCOLATE D30

Version Number 1.1 Revision Date 03/29/2014

Product Use

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#### 1. PRODUCT AND COMPANY IDENTIFICATION

#### POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone number	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	CHOCOLATE D30
Product code	:	CC10147968
Chemical Name	:	Mixture
CAS-No.	:	Mixture

## : Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Calcium carbonate	1317-65-3	1 - 5
Calcium stearate	1592-23-0	1 - 5
Carbon black	1333-86-4	1 - 5
Iron oxide	1309-37-1	5 - 10
Titanium dioxide	13463-67-7	10 - 30

#### **3. HAZARDS IDENTIFICATION**

#### **EMERGENCY OVERVIEW**

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.

#### POTENTIAL HEALTH EFFECTS

Routes of Exposure:	: Inhalation, Ingestion, Skin contact
Acute exposure	
Inhalation	: Particulates, like other inert materials can be mechanically irritating. Excessive inhalation of product vapors, especially during heating or processing, may be irritating to respiratory system.
Ingestion Eyes	<ul><li>May be harmful if swallowed.</li><li>Particulates, like other inert materials can be mechanically irritating.</li></ul>



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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.
	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, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.
Skin	: Wash off with soap and plenty of water. If skin irritation persists seek medical attention.
	5. FIREFIGHTING MEASURES
Flash point	: not applicable
Flammable Limits Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	<ul> <li>not applicable</li> <li>not applicable</li> <li>not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> <li>Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.</li> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.</li> </ul>
	6. ACCIDENTAL RELEASE MEASURES
Personal precautions	: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
Environmental precautions	: Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.
Methods for cleaning up	: Clean up promptly by sweeping or vacuum. Package all material in



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	plastic, cardboard or metal containers for disposal.	
	7. HANDLING AND STORAGE	
Handling : Take measures to prevent the build up of electrostatic charge. only in areas with appropriate exhaust ventilation.		e. Heat
Storage	: Keep containers dry and tightly closed to avoid moisture ab and contamination. Keep in a dry, cool place.	sorption
8. EX	OSURE CONTROLS/PERSONAL PROTECTION	
Respiratory protection	: No personal respiratory protective equipment normally requ	iired.
Eye/Face Protection	: Safety glasses with side-shields	
Hand protection	: Protective gloves	
Skin and body protection	: Long sleeved clothing	
Additional Protective Measures	: Safety shoes	
General Hygiene Considerations	: Handle in accordance with good industrial hygiene and safe practice. Wash hands before breaks and at the end of work	
Engineering measures	: Heat only in areas with appropriate exhaust ventilation. Pro appropriate exhaust ventilation at machinery.	ovide
Exposure limit(s)		

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Components	Value	Exposure time	Exposure type	List:
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
Calcium stearate	10 mg/m3	Time Weighted Average (TWA):		ACGIH
Carbon black	3.5 mg/m3	Recommended exposure limit (REL):		NIOSH
	0.1 mg/m3	Recommended exposure limit (REL):		NIOSH
	3.5 mg/m3	PEL:		OSHA Z1
	3.5 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	3.5 mg/m3	Time Weighted Average (TWA):		MX OEL
	7 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
Iron oxide	10 mg/m3	PEL:	Fume.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	as Fe	MX OEL
	10 mg/m3	Short Term Exposure Limit (STEL):	as Fe	MX OEL
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):		ACGIH
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):	as Ti	MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):	as Ti	MX OEL

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility solid
pellets
BROWN
very faint
Not determined
not applicable
insoluble

Evapouration rate Specific Gravity Bulk density Vapour pressure Vapour density pH Not applicable
Not determined
Not established
not applicable
not applicable
not applicable

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	10. STABILITY AND REACTIVITY
Stability	: The product is stable if stored and handled as prescribed.
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	: Avoid contact with strong oxidizers. Also, avoid contact with acetal or acetal copolymers and with amine containing materials during processing. At processing conditions, these materials are mutually destructive and involve rapid degradation. Thoroughly purge and mechanically clean processing equipment to avoid even trace quantities of these materials from coming in contact with each other. Prevent cross contamination of feedstocks.
Hazardous decomposition products	<ul> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating (approximately 30 minutes or more) above 392 °F (200 °C) or short term heating at 482 °F (250 °C) may result in product decomposition and evolution of carbon monoxide and hydrogen chloride.</li> </ul>

#### 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
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, Respiratory
			system.
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
1309-37-1	Iron oxide	Systemic effects	Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

#### LC50 / LD50

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

CAS-No.	Chemical Name	Route	Value	Species
1592-23-0	Calcium stearate	Oral LD50	>10 gm/kg	rat
1333-86-4	Carbon black	Oral LD50	>15,400 mg/kg	rat
		Dermal LD50	> 3 gm/kg	rabbit

Carcinogenicity

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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.

#### Additional Health Hazard Information:

Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). The IARC 2B listing only pertains to airborne, unbound carbon black particles of respirable size. Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

#### **12. ECOLOGICAL INFORMATION**

Persistence and degradability	: Not readily biodegradable.
Environmental Toxicity	: Chemicals are not readily available as they are bound within the polymer matrix.
Bioaccumulation Potential	: Chemicals are not readily available as they are bound within the polymer matrix.
Additional advice	: no data available
	13. DISPOSAL CONSIDERATIONS
Product	: Like most thermoplastic plastics the product can be recycled. 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 applicable federal, state/provincial and local regulations.
Contaminated packaging	: Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification,

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	transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
	14. TRANSPORT INFORMATION
U.S. DOT Classification	: Not regulated for transportation.
ICAO/IATA	: Refer to specific regulation.
IMO/IMDG (maritime)	: Refer to specific regulation.
	15. REGULATORY INFORMATION
US Regulations:	
OSHA Status	: Classified as hazardous based on components.
TSCA Status	: All components of this product are listed on or exempt from the TSCA Inventory.
US. EPA CERCLA Hazardou	us Substances (40 CFR 302)
not applicable	
California Propositior 65	n : Not applicable
SARA Title III Section 302 E	Extremely Hazardous Substance
Unless specific chemicals are	identified under this section, this product is Not Applicable under this regula
SARA Title III Section 313 T	'oxic Chemicals:
	identified under this section, this product is Not Applicable under this regula
Chemical Name	CAS-No. Weight percent
ZINC COMPOUNDS ZINC COMPOUNDS	68187-51-9         10.00 - 30.00           557-05-1         0.10 - 1.00
Canadian Regulations:	
-	
National Pollutant Rel Chemical Name	ease Inventory (NPRI) CAS-No. Weight NPRI ID#

Trational Fondulit Release Inventory (14114)			
Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
2,6-Di-tert-butyl-p-cresol	128-37-0	0.10 - 1.00	

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Aluminum oxide		1344-28-1	0.10 - 1.00	
Zinc ferrite brown spinel (C.I. Pi 119)	igment Yellow	68187-51-9	10.00 - 30.00	
Zinc stearate		557-05-1	0.10 - 1.00	
WHMIS Classification : WHMIS Ingredient Disclos CAS-No.				
1333-86-4         1309-37-1         DSL       :		ts of this product a t (DSL) or are exe	re on the Canadian Don mpt.	nestic
ational Inventories:				
Australia AICS :	Listed			
China IECS :	Listed			
Europe EINECS :	Listed			
Japan ENCS :	Not determined	1		
Korea KECI :	Listed			
Philippines PICCS :	Listed			
		NFORMATION		

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