

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 1 of 15
Print Date 02/26/2015

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION**Section 1. Identification**

GHS product identifier : 187CSB PANTONE(R) 187 C SIMULATION
Chemical name : Mixture
CAS number : Mixture
Other means of identification : FO20017332
Product type : solid

Relevant identified uses of the substance 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 (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. 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 MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

Supplemental label elements : None known.
Hazards not otherwise classified : None known.

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 2 of 15
Print Date 02/26/2015

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Chemical name : Mixture
Other means of identification : FO20017332

CAS number/other identifiers

Ingredient name	%	CAS number
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	10 - 30	68515-48-0
Calcium carbonate	10 - 30	471-34-1
Titanium dioxide	1 - 5	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. 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

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 3 of 15
Print Date 02/26/2015

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 attention 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 (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : No specific fire or explosion hazard.
- Hazardous thermal** : May emit Hydrogen Chloride (HCl).

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 5 of 15
Print Date 02/26/2015

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : 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
Calcium carbonate	OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m ³ Form: Total dust PEL: Permissible Exposure Level 5 mg/m³ Form: Respirable fraction
Titanium dioxide	OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 10 mg/m ³ Form: Total dust OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m ³ Form: Total dust ACGIH TLV (1996-05-18) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 10 mg/m ³

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker 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, filters or engineering modifications to the process equipment will be

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 6 of 15
Print Date 02/26/2015

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** : 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, particulate filter 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.

Section 9. Physical and chemical properties

Appearance

- Physical state** : solid [Paste.]
- Color** : RED
- Odor** : Faint odor.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 7 of 15
Print Date 02/26/2015

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 (flammable) limits	:	Lower: Not available. 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.
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

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 8 of 15
Print Date 02/26/2015

Product/ingredient name	Result	Species	Dose	Exposure
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich				
	LD50 Oral	Rat	10,000 mg/kg	-
Calcium carbonate				
	LD50 Oral	Rat	6,450 mg/kg	-
Titanium dioxide				
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-

Conclusion/Summary : Mixture.Not fully tested.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	Eyes - Mild irritant	Rabbit			-
Calcium carbonate	Eyes - Severe irritant	Rabbit		24 hrs	-
	Skin - Moderate irritant	Rabbit		24 hrs	-

Conclusion/Summary

Skin : Mixture.Not fully tested.
Eyes : Mixture.Not fully tested.
Respiratory : Mixture.Not fully tested.

Sensitization**Conclusion/Summary**

Skin : Mixture.Not fully tested.
Respiratory : Mixture.Not fully tested.

Mutagenicity

Conclusion/Summary : Mixture.Not fully tested.

Carcinogenicity

Conclusion/Summary : Mixture.Not fully tested.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium dioxide		2B	

SAFETY DATA SHEET**187CSB PANTONE(R) 187 C SIMULATION**Version Number 1.9
Revision Date 02/25/2015Page 9 of 15
Print Date 02/26/2015**Reproductive toxicity****Conclusion/Summary** : Mixture.Not fully tested.**Teratogenicity****Conclusion/Summary** : Mixture.Not fully tested.**Specific target organ toxicity (single exposure)**

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.**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.**Symptoms related to the physical, chemical and toxicological characteristics****Eye contact** : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure****Potential immediate effects** : Not available.
Potential delayed effects : Not available.**Long term exposure****Potential immediate effects** : Not available.

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 10 of 15
Print Date 02/26/2015

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Mixture.Not fully tested.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity**Acute toxicity estimates**

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Calcium carbonate			
	Acute LC50 56,000 mg/l Fresh water	Fish - Western mosquitofish	96 h
	Chronic NOEC 61,000 mg/l Fresh water	Fish - Rainbow trout,donaldson trout	28 d
	Chronic NOEC 61,000 mg/l Fresh water	Fish - Rainbow trout,donaldson trout	35 d
	Chronic NOEC 61,000 mg/l Fresh water	Fish - Rainbow trout,donaldson trout	42 d
	Chronic NOEC 61,000 mg/l Fresh water	Fish - Rainbow trout,donaldson trout	35 d
	Chronic NOEC 61,000 mg/l Fresh water	Fish - Rainbow trout,donaldson trout	42 d
Titanium dioxide			
	Acute LC50 1,000,000 µg/l Marine water	Fish - Mummichog	96 h
	Acute LC50 1,000 mg/l Fresh water	Fish - Fathead minnow	96 h

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 11 of 15
Print Date 02/26/2015

	Acute LC50 5.5 mg/l Fresh water	Aquatic invertebrates. Water flea	48 h
	Acute LC50 10 mg/l Fresh water	Aquatic invertebrates. Water flea	48 h
	Acute LC50 13 mg/l Fresh water	Aquatic invertebrates. Water flea	48 h
	Acute LC50 6.5 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 35.9 mg/l Fresh water	Aquatic plants - Green algae	72 h
	Acute EC50 5.83 mg/l Fresh water	Aquatic plants - Green algae	72 h
187CSB PANTONE(R) 187 C SIMULATION			
Remarks - Acute - Aquatic invertebrates.:	Chemicals are not readily available as they are bound within the polymer matrix.		

Conclusion/Summary : Chemicals are not readily available as they are bound within the polymer matrix.

Persistence and degradability

Conclusion/Summary : Chemicals are not readily available as they are bound within the polymer matrix.

Conclusion/Summary : Chemicals are not readily available as they are bound within the polymer matrix.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	8.8	3.00	low
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

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 12 of 15
Print Date 02/26/2015

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: Listed **1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich**
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

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 13 of 15
Print Date 02/26/2015

United States - TSCA 8(a) - Dioxin/Furane precursor: 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(d) - Health and safety studies: Not listed
United States - TSCA 8(a) - Preliminary assessment report (PAIR): Listed Poly(dimethylsiloxane)

United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Listed Vinyl chloride monomer
Phenol
Acrylonitrile

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 Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Classification
1,2-Benzenedicarboxylic acid, di-	10 - 30	AH

SAFETY DATA SHEET

187CSB PANTONE(R) 187 C SIMULATION

Version Number 1.9
Revision Date 02/25/2015

Page 14 of 15
Print Date 02/26/2015

C8-10-branched alkyl esters, C9-rich		
Calcium carbonate	10 - 30	AH
Titanium dioxide	1 - 5	CH

SARA 313

Not applicable.

State regulations

- Massachusetts** : The following components are listed:
Calcium carbonate
Titanium dioxide
- New York** : None of the components are listed.
- New Jersey** : The following components are listed:
Ethene, chloro-, homopolymer
Calcium carbonate
Titanium dioxide
- Pennsylvania** : The following components are listed:
Calcium carbonate

Titanium dioxide

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 exempted.
- Canada inventory** : At least one component is not listed in DSL but all such components are listed in NDSL.

International regulations

- International lists** :
- Australia inventory (AICS):** Not determined.
 - Taiwan inventory (CSNN):** Not determined.
 - Malaysia Inventory (EHS Register):** Not determined.
 - EINECS:** All components are listed or exempted.
 - 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** : Not listed

SAFETY DATA SHEET**187CSB PANTONE(R) 187 C SIMULATION**Version Number 1.9
Revision Date 02/25/2015Page 15 of 15
Print Date 02/26/2015

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**History**

Date of printing : 02/26/2015
Date of issue/Date of revision : 02/25/2015
Date of previous issue : 03/18/2014
Version : 1.9

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 above-named 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.