

## **BLUE 293C ACETAL**

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# SAFETY DATA SHEET

### **BLUE 293C ACETAL**

# **Section 1. Identification**

**BLUE 293C ACETAL GHS** product identifier

Chemical name Mixture CAS number Mixture CC10202345 Other means of identification

**Product type** solid

Relevant identified uses of the substance or mixture and uses advised against

Product use Industrial applications. Plastics.

POLYONE CORPORATION Supplier's details

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). 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 This material is considered hazardous by the OSHA Hazard

Communication Standard (29 CFR 1910.1200).

Classification of the substance or

mixture

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

CARCINOGENICITY - Category 2

Dispose of contents and container in accordance with all local,

regional, national and international regulations.

Supplemental label elements None known.



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**Hazards not otherwise classified** : None known.

# Section 3. Composition/information on ingredients

Substance/mixture: MixtureChemical name: MixtureOther means of identification: CC10202345

### **CAS** number/other identifiers

Ingredient name	%	CAS number
Poly(dimethylsiloxane)	10 - 30	63148-62-9
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.

Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable

for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.



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**Skin contact**: Flush contaminated skin with plenty of water. Remove contaminated

clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly

before reuse.

**Ingestion**: Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing

such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**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**: Irritating to mouth, throat and stomach.

### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:

pain or irritation

watering redness

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. It may be dangerous to the person providing aid to



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give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

# **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 CO<sub>2</sub>.

None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

No specific fire or explosion hazard.

: If overheated or burnt, the polymer releases formaldehyde. Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides

Special protective actions for firefighters 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 selfcontained 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

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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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



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or air).

### Methods and materials for containment and cleaning up

Small spill Move containers from spill area. Avoid dust generation. Do not dry

> sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste

disposal contractor.

Large spill Move containers from spill area. Approach release from upwind.

> Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. 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** Put on appropriate personal protective equipment (see Section 8).

> Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product

residue and can be hazardous. Do not reuse container.

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. Store in a well-ventilated place. 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.



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# 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 NIOSH REL (1994-06-01)	
	ACGIH TLV (1996-05-18) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 10 mg/m3	

**Appropriate engineering controls** 

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to

keep worker exposure to airborne contaminants below any

recommended or statutory limits.

**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 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: chemical splash goggles.

### Skin protection



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**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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves

cannot be accurately estimated.

**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 [Pellets.]

Color : BLUE
Odor : Not available.

**Odor threshold** Not available. Not available. pН **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.



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**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** : Maintain polymer temperature below 230°C (446°F). Avoid

prolonged exposure at or above recommended processing temperature.

Incompatible materials

Incompatible with strong oxidizers and with strong acids and bases

(decomposes to form formaldehyde). At melt temperatures, acetal resins are incompatible with halogenated polymers such as vinyl (PVC) and any elastomers containing any halogenated polymers. At processing conditions, these materials are mutually destructive and involve rapid degradation. Even small amounts of such contaminants can cause sudden and spontaneous formaldehyde gas formation. Workplace fume well above threshold levels are a likely result. Unsafe pressurization of equipment such as extruder or mold can also result. Thoroughly purge and mechanically clean processing equipment to avoid even trace quantities of halogenated materials from coming in contact with the acetal. Prevent contamination of virgin or rework

resin

**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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**Conclusion/Summary** : Mixture.Not fully tested.

### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Poly(dimethylsiloxane)	Eyes - Moderate irritant	Rabbit		24 hrs	-
	Skin - Mild 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	

### **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.



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**Aspiration hazard** 

Not available.

Information on the likely routes of

exposure

Not available.

Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**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** : Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:

pain or irritation watering

redness

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.
Potential delayed effects : Not available.

Potential chronic health effects

**Conclusion/Summary** : Mixture.Not fully tested.

**General** : No known significant effects or critical hazards.

**Carcinogenicity**: Suspected of causing cancer. Risk of cancer depends on duration and

level of exposure.

Mutagenicity : No known significant effects or critical hazards.



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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
Poly(dimethylsiloxane)			
	Acute LC50 3.160 mg/l Fresh	Fish - Channel catfish	96 h
	water		
	Acute LC50 37.790 mg/l Fresh	Fish - Redear sunfish	96 h
	water		
	Acute LC50 44.5 mg/l Fresh water	Aquatic invertebrates.	48 h
		Water flea	
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Remarks - Acute - Aquatic	Chemicals are not readily available as they are bound within the polymer matrix.		
invertebrates.:			

**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
Titanium dioxide		352.00	low

### Mobility in soil



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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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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 : Consult mode specific transport rules

IMO/IMDG (maritime) : Consult mode specific transport rules

# 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) - 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



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United States - TSCA 5(a)2 - Final significant new use rules: Not

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 Poly(dimethylsiloxane)

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 Phthalocyanine blue

United States - EPA Clean water act (CWA) section 311 -

Hazardous substances: Not 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)

Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I

**Substances** 

Clean Air Act Section 602 Class II

Substances

**DEA List I Chemicals (Precursor** 

Chemicals)

**DEA List II Chemicals (Essential** 

Chemicals)

Not listed

Not listed

Not listed

Not listed

Not listed

# US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312



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Classification : Immediate (acute) health hazard

Delayed (chronic) health hazard

### **Composition/information on ingredients**

Name	%	Classification
Poly(dimethylsiloxane)	10 - 30	АН
Titanium dioxide	1 - 5	СН

### **SARA 313**

Not applicable.

**State regulations** 

Massachusetts : The following components are listed:

Titanium dioxide

New York : None of the components are listed.
New Jersey : The following components are listed:

Phthalocyanine blue Titanium dioxide

**Pennsylvania** : The following components are listed:

Phthalocyanine blue

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** : All components are listed or exempted.

**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.



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**Chemical Weapons Convention** 

**List Schedule I Chemicals** 

**Chemical Weapons Convention** 

**List Schedule II Chemicals** 

**Chemical Weapons Convention** 

List Schedule III Chemicals

Not listed

Not listed

Not listed

## Section 16. Other information

**History** 

Date of printing: 07/31/2014Date of issue/Date of revision: 07/30/2014Date 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)

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.