

## SAFETY DATA SHEET

**DGG0051 Patina Green Sm.**

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## SAFETY DATA SHEET

**DGG0051 Patina Green Sm.****Section 1. Identification**

GHS product identifier : DGG0051 Patina Green Sm.  
Chemical name : Mixture  
CAS number : Mixture  
Other means of identification : FO20010103  
Product type : liquid

**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 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. 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.

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 2B  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 1A

**GHS label elements**

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**Hazard pictograms****Signal word****Hazard statements**

- : Danger
- : Causes eye irritation.
- : May cause an allergic skin reaction.
- : May cause cancer.

**Precautionary statements****General****Prevention****Response****Storage****Disposal****Supplemental label elements****Hazards not otherwise classified**

- : Not applicable.
- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
- : IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- : Store in a well-ventilated place.
- : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- : None known.
- : None known.

<b>Section 3. Composition/information on ingredients</b>
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**Substance/mixture****Chemical name****Other means of identification**

- : Mixture
- : Mixture
- : FO20010103

**CAS number/other identifiers**

Ingredient name	%	CAS number
Diisodecyl phthalate (mixed isomers)	6.8 - 10	68515-49-1

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Titanium dioxide	5 - 10	13463-67-7
Silica, cristobalite	1 - 3	14464-46-1
Bisphenol A - Epichlorohydrin polymer	1.51 - 3	25068-38-6
Antimony trioxide	1.75 - 3	1309-64-4
Carbon black	0.1 - 0.3	1333-86-4
Cadmium	0.1 - 0.3	7440-43-9
Naphthalene	0.1 - 0.3	91-20-3

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.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before

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- removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. 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 eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May cause an allergic skin reaction.  
**Ingestion** : No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

**Indication of immediate medical attention and special treatment needed, if necessary**

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the

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rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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 CO<sub>2</sub>.  
**Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.  
**Hazardous thermal decomposition products** : May emit Hydrogen Chloride (HCl).  
Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
halogenated compounds  
metal oxide/oxides

- 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** : 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. Avoid breathing vapor or mist. 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".

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- 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. Approach release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilled product. 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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. Avoid breathing vapor or mist. 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.

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**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.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Carbon black	<p><b>OSHA PEL 1989 (1989-03-01)</b> PEL: Permissible Exposure Level 3.5 mg/m<sup>3</sup></p> <p><b>OSHA PEL (1993-06-30)</b> PEL: Permissible Exposure Level 3.5 mg/m<sup>3</sup></p> <p><b>NIOSH REL (1994-06-01)</b> Time Weighted Average (TWA) 3.5 mg/m<sup>3</sup></p> <p><b>Time Weighted Average (TWA)</b></p> <p><b>ACGIH TLV (2010-12-06)</b> TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 3 mg/m<sup>3</sup> Form: Inhalable fraction</p>
Cadmium	<p><b>OSHA PEL 1989 (1989-03-01) expressed as Cd</b> PEL: Permissible Exposure Level 0.1 mg/m<sup>3</sup> Form: Fume <b>Ceiling, is a limit indicating the maximum concentration of a chemical substances in the breathing zone that should not be exceeded.</b> 0.3 mg/m<sup>3</sup> Form: Fume</p> <p><b>PEL: Permissible Exposure Level 0.2 mg/m<sup>3</sup> Form: Dust</b> <b>Ceiling, is a limit indicating the maximum concentration of a chemical substances in the breathing zone that should not be exceeded.</b> 0.6 mg/m<sup>3</sup> Form: Dust</p> <p><b>OSHA PEL 1989 (1992-12-14)</b> PEL: Permissible Exposure Level 0.005 mg/m<sup>3</sup></p> <p><b>OSHA PEL Z2 (1993-06-30)</b> PEL: Permissible Exposure Level 0.1 mg/m<sup>3</sup> Form: Fume <b>Ceiling, is a limit indicating the maximum concentration of a chemical substances in the breathing zone that should not be exceeded.</b> 0.3 mg/m<sup>3</sup> Form: Fume</p> <p><b>PEL: Permissible Exposure Level 0.2 mg/m<sup>3</sup> Form: Dust</b></p>

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	<p><b>Ceiling</b>, is a limit indicating the maximum concentration of a chemical substances in the breathing zone that should not be exceeded. 0.6 mg/m<sup>3</sup> Form: Dust  <b>OSHA PEL (1993-06-30) expressed as Cd</b>          PEL: Permissible Exposure Level 0.005 mg/m<sup>3</sup>  <b>NIOSH REL (1994-06-01) expressed as Cd</b>          Form: Dust  <b>ACGIH TLV (1994-09-01) expressed as Cd</b>          TLV-TWA: Threshold Limit Value - Time weighted average PEL:          Permissible Exposure Level 0.01 mg/m<sup>3</sup> Form: Inhalable fraction  <b>TLV-TWA: Threshold Limit Value - Time weighted average PEL:</b>  <b>Permissible Exposure Level 0.002 mg/m<sup>3</sup> Form: Respirable fraction</b></p>
Naphthalene	<p><b>OSHA PEL 1989 (1989-03-01)</b>          PEL: Permissible Exposure Level 50 mg/m<sup>3</sup> 10 ppm  <b>Short Term Exposure Limit value for a 15-minute reference period expressed in parts per million or in mg/m<sup>3</sup>. 75 mg/m<sup>3</sup> 15 ppm</b>  <b>OSHA PEL (1993-06-30)</b>          PEL: Permissible Exposure Level 50 mg/m<sup>3</sup> 10 ppm  <b>NIOSH REL (1994-06-01)</b>          Time Weighted Average (TWA) 50 mg/m<sup>3</sup> 10 ppm  <b>Short Term Exposure Limit value for a 15-minute reference period expressed in parts per million or in mg/m<sup>3</sup>. 75 mg/m<sup>3</sup> 15 ppm</b>  <b>ACGIH TLV (1996-05-18)</b>          TLV-TWA: Threshold Limit Value - Time weighted average PEL:          Permissible Exposure Level 52 mg/m<sup>3</sup> 10 ppm</p>
Silica, cristobalite	<p><b>OSHA PEL 1989 (1989-03-01) Calculated as Quartz</b>          PEL: Permissible Exposure Level 0.05 mg/m<sup>3</sup> Form: Respirable dust  <b>OSHA - PEL Z3 (1997-09-03)</b>          Time Weighted Average (TWA) Form: Respirable  <b>Time Weighted Average (TWA) 10 mg/m<sup>3</sup> Form: Respirable</b>  <b>Time Weighted Average (TWA) 30 mg/m<sup>3</sup> Form: Total dust</b>  <b>NIOSH REL (1994-06-01)</b>          Time Weighted Average (TWA) 0.05 mg/m<sup>3</sup> Form: Respirable dust  <b>ACGIH TLV (2005-12-09)</b>          TLV-TWA: Threshold Limit Value - Time weighted average PEL:          Permissible Exposure Level 0.025 mg/m<sup>3</sup> Form: Respirable fraction</p>
Titanium dioxide	<p><b>OSHA PEL 1989 (1989-03-01)</b>          PEL: Permissible Exposure Level 10 mg/m<sup>3</sup> Form: Total dust  <b>OSHA PEL (1993-06-30)</b>          PEL: Permissible Exposure Level 15 mg/m<sup>3</sup> Form: Total dust  <b>NIOSH REL (1994-06-01)</b></p>



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	<b>ACGIH TLV (1996-05-18)</b> TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 10 mg/m <sup>3</sup>
Diisodecyl phthalate (mixed isomers)	
Antimony trioxide	<b>OSHA PEL (1993-06-30) expressed as Sb</b> PEL: Permissible Exposure Level 0.5 mg/m <sup>3</sup> <b>NIOSH REL (1994-06-01) expressed as Sb</b> Time Weighted Average (TWA) 0.5 mg/m <sup>3</sup> <b>OSHA PEL 1989 (1989-03-01) expressed as Sb</b> PEL: Permissible Exposure Level 0.5 mg/m <sup>3</sup> <b>ACGIH TLV (1994-09-01)</b>
Bisphenol A - Epichlorohydrin polymer	

**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. Contaminated work clothing should not be allowed out of the workplace. 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

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higher degree of protection: chemical splash goggles.

**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. 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, air-purifying or air-fed 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** : liquid [liquid]
- Color** : GREEN
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- 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 (flammable) limits** : **Lower:** Not available.  
**Upper:** Not available.
- Vapor pressure** : Not available.

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Vapor density	:	Not available.
Relative density	:	Not available.
Solubility	:	Not available.
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
SADT	:	Not available.
Viscosity	:	<b>Dynamic:</b> Not available. <b>Kinematic:</b> 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

Product/ingredient name	Result	Species	Dose	Exposure
Carbon black	LD50 Oral	Rat	15,400 mg/kg	-
Cadmium	LD50 Oral	Rat	2,330 mg/kg	-
	LC50 Inhalation	Rat	0.025 mg/l	0.50 h
Naphthalene	LD50 Oral	Rat	490 mg/kg	-
	LD50 Dermal	Rabbit	20,000 mg/kg	-

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Silica, cristobalite				
Bisphenol A - Epichlorohydrin polymer				
	LD50 Oral	Rat	13,600 mg/kg	-
	LD50 Oral	Rat	11,400 mg/kg	-
	LD50 Oral	Rat	11,400 mg/kg	-
	LD50 Oral	Rat	30,000 mg/kg	-
	LD50 Oral	Rat	30,000 mg/kg	-
	LD50 Oral	Rat	30,000 mg/kg	-
	LD50 Oral	Rat	30,000 mg/kg	-
	LD50 Oral	Rat	13,600 mg/kg	-
Antimony trioxide				
	LD50 Oral	Rat	34,600 mg/kg	-
	LD50 Oral	Rat	34,000 mg/kg	-
Diisodecyl phthalate (mixed isomers)				
	LD50 Oral	Rat	60,000 mg/kg	-
	LD50 Dermal	Rabbit	16,000 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
Naphthalene	Skin - Severe irritant	Rabbit		24 hrs	-
	Skin - Mild irritant	Rabbit			-
Bisphenol A - Epichlorohydrin polymer	Eyes - Mild irritant	Rabbit			-
	Eyes - Mild irritant	Rabbit			-
	Skin - Moderate irritant	Rabbit		24 hrs	-
	Skin - Severe irritant	Rabbit		24 hrs	-
	Eyes - Mild irritant	Rabbit			-
Antimony trioxide	Eyes - Mild irritant	Rabbit			-
Diisodecyl phthalate (mixed isomers)	Eyes - Mild irritant	Rabbit			-
Titanium dioxide	Skin - Mild	Human		72 hrs	-

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	irritant				
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**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
Carbon black		2B	
Cadmium	+	1	
Naphthalene		2B	
Silica, cristobalite		1	
Antimony trioxide		2B	
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.

**Aspiration hazard**

Not available.

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**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

**Eye contact** : Causes eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May cause an allergic skin reaction.  
**Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:  
 irritation  
 watering  
 redness  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness  
**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** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.  
**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.

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**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
Carbon black			
	Acute EC50 37.563 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 61.547 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
Cadmium			
	Acute LC50 2.1 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 1.41 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 1 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 1.1 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 2 µg/l Fresh water	Fish - Fish	96 h
	Acute EC50 25.4 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 24.4 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 24 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 33 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 36 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 35.77 µg/l Marine water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 24 µg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 33.97 µg/l Marine water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 0.072 µg/l Marine water	Aquatic invertebrates. Crustaceans	48 h

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	Acute LC50 31.13 µg/l Marine water	Aquatic invertebrates. Crustaceans	48 h
	Acute EC50 164 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute EC50 0.095 mg/l Marine water	Aquatic plants - Algae	96 h
	Acute EC50 101 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute EC50 97 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute EC50 452 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute EC50 200 µg/l Fresh water	Aquatic plants - Aquatic plants	96 h
	Acute NOEC 1,000 µg/l Marine water	Aquatic plants - Algae	4 d
	Acute NOEC 2 µg/l Fresh water	Aquatic plants - Algae	4 d
	Acute NOEC 2 µg/l Fresh water	Aquatic plants - Algae	3 d
	Chronic NOEC 1.25 µg/l Fresh water	Fish - Fish	100 d
	Chronic NOEC 0.07 µg/l Fresh water	Fish - Fish	28 d
	Chronic NOEC 0.02 µg/l Fresh water	Fish - Fish	28 d
	Chronic NOEC 1.88 µg/l Fresh water	Fish - Fish	133 d
	Chronic NOEC 1.33 µg/l Fresh water	Fish - Fish	133 d
<b>Naphthalene</b>			
	Acute LC50 372 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 315 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 313 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 213 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 438 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 2,160 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 1.96 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 2.550 Mg/l Fresh water	Aquatic invertebrates. Water flea	48 h
	Acute EC50 1,600 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 2,194 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 2,800 µg/l Marine water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 2.6 mg/l Marine water	Aquatic invertebrates. Crustaceans	48 h



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	Acute EC50 5,960 µg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 3,930 µg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 2,350 µg/l Marine water	Aquatic invertebrates. Crustaceans	48 h
	Acute EC50 1.6 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
<b>Antimony trioxide</b>			
	Acute LC50 > 530 mg/l Fresh water	Fish - Fish	96 h
	Acute LC50 > 1,000,000 µg/l Marine water	Fish - Fish	96 h
	Acute EC50 423,450 µg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 560 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute EC50 730 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute EC50 760 µg/l Fresh water	Aquatic plants - Algae	96 h
	Acute EC50 740 µg/l Fresh water	Aquatic plants - Algae	96 h
	Acute NOEC 200 µg/l Fresh water	Aquatic plants - Algae	4 d
<b>Titanium dioxide</b>			
	Acute LC50 > 1,000,000 µg/l Marine water	Fish - Fish	96 h
	Acute LC50 > 1,000 mg/l Fresh water	Fish - Fish	96 h
	Acute LC50 13 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 6.5 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 3 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 15.9 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 3.6 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 11 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 13.4 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute EC50 27.8 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 19.3 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 35.306 mg/l Fresh	Aquatic invertebrates.	48 h

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	water	Daphnia	
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**Conclusion/Summary** : Not available.

**Persistence and degradability**

**Conclusion/Summary** : Not available.

**Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Cadmium		1,345.00	high
Naphthalene	3.4	36.50	low
Bisphenol A - Epichlorohydrin polymer	2.64 - 3.78	31.00	low
Diisodecyl phthalate (mixed isomers)	8.8	0.10	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**

**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

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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:** Listed **Diisodecyl phthalate**  
**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:** Listed  
**Lead**  
**United States - TSCA 8(a) - Chemical risk rules:** Not listed  
**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(a) - Preliminary assessment report (PAIR):** Listed **Naphthalene**  
**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 **Cadmium**  
**Miscellaneous Chromium Compounds (Cr II & III)**  
**Chromium (III) oxide**  
**Miscellaneous Zinc Compounds**

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Diisodecyl phthalate  
Zinc  
Miscellaneous Nickel Compounds  
Vinyl chloride monomer  
Lead  
Antimony trioxide  
Naphthalene  
Arsenic

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) : 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  
DEA List I Chemicals (Precursor : Not listed  
Chemicals)  
DEA List II Chemicals (Essential : Not listed  
Chemicals)

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

Chemical Name	CAS-No.	RQ for component
Naphthalene	91-20-3	100 lb(s) 45.4 kg
Cadmium	7440-43-9	10 lb(s) 4.54 kg

**SARA 311/312**

Classification : Immediate (acute) health hazard  
Delayed (chronic) health hazard

**Composition/information on ingredients**

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Name	%	Classification
Carbon black	0.1 - 0.3	CH
Cadmium	0.1 - 0.3	CH
Naphthalene	0.1 - 0.3	AH, CH
Silica, cristobalite	1 - 3	CH
Bisphenol A - Epichlorohydrin polymer	1.51 - 3	AH
Antimony trioxide	1.75 - 3	AH, CH
Diisodecyl phthalate (mixed isomers)	6.8 - 10	AH

**SARA 313**

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	Cadmium	7440-43-9	0.1 - 0.3
	Naphthalene	91-20-3	0.1 - 0.3
	Rutile, antimony chromium buff	68186-90-3	1 - 3
	Antimony trioxide	1309-64-4	1.75 - 3
	Chromium (III) oxide	1308-38-9	3 - 5
<b>Supplier notification</b>	Cadmium	7440-43-9	0.1 - 0.3
	Naphthalene	91-20-3	0.1 - 0.3
	Rutile, antimony chromium buff	68186-90-3	1 - 3
	Antimony trioxide	1309-64-4	1.75 - 3
	Chromium (III) oxide	1308-38-9	3 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State regulations**  
**Massachusetts**

: The following components are listed:

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- Titanium dioxide
- Silica, cristobalite
- Antimony trioxide
- Chromium (III) oxide
- Bis (2-ethylhexyl) adipate
- New York** : The following components are listed:
  - Cadmium
  - Naphthalene
- New Jersey** : The following components are listed:
  - Antimony trioxide
  - Silica, cristobalite
  - Ethene, chloro-, homopolymer
  - Titanium dioxide
  - Bis (2-ethylhexyl) adipate
  - Chromium (III) oxide
  - Antimony trioxide
  - Naphthalene
  - Cadmium
  - Carbon black
- Pennsylvania** : The following components are listed:
  - Carbon black
  - Cadmium
  - Naphthalene
  - Silica, cristobalite
  - Antimony trioxide
  - Chromium (III) oxide
  - Bis (2-ethylhexyl) adipate
  - Titanium dioxide

**California Prop. 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**United States inventory (TSCA 8b)** : All components are listed or exempted.

**Canada inventory** : All components are listed or exempted.

**International regulations**

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<b>International lists</b>	:	<b>Australia inventory (AICS):</b> Not determined. <b>Taiwan inventory (CSNN):</b> Not determined. <b>Malaysia Inventory (EHS Register):</b> Not determined. <b>EINECS:</b> Not determined. <b>Japan inventory:</b> Not determined. <b>China inventory (IECSC):</b> Not determined. <b>Korea inventory:</b> Not determined. <b>New Zealand Inventory of Chemicals (NZIoC):</b> Not determined. <b>Philippines inventory (PICCS):</b> Not determined.
<b>Chemical Weapons Convention List Schedule I Chemicals</b>	:	Not listed
<b>Chemical Weapons Convention List Schedule II Chemicals</b>	:	Not listed
<b>Chemical Weapons Convention List Schedule III Chemicals</b>	:	Not listed

## Section 16. Other information

### History

<b>Date of printing</b>	:	06/09/2016
<b>Date of issue/Date of revision</b>	:	06/07/2016
<b>Date of previous issue</b>	:	01/14/2014
<b>Version</b>	:	1.5

### **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

<b>References</b>	:	Not available.
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### 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

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materials or in any process, unless specified in the text.