



POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DB4090A ORANGE (SM1163)

Version Number 1.2
Revision Date 01/01/2013

Page 1 of 8
Print Date 1/2/2013

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone : 1 (440) 930-1000 or 1 (866) POLYONE
Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure
number or accident).

Product name : DB4090A ORANGE (SM1163)
Product code : FO20014888
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Naphtha (petroleum), heavy alkylate	64741-65-7	1 - 5
Naphtha, petroleum, hydrotreated heavy	64742-48-9	1 - 5
Titanium dioxide	13463-67-7	0.1 - 1
Stoddard solvent	8052-41-3	1 - 5

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions. Do not use this pigment in polymers at temperatures over 200°C (392°F). Decomposition of diarylide pigments in polymers at temperatures over 200°C (392°F) may produce trace amounts of monoazo dyes, which in turn can decompose to produce aromatic amines. The amount and type of degradation products formed depend on the dwell time, formulation and processing conditions as well as temperature. As conditions become more severe, as when temperatures move into the 240-300°C (464-572°F) range, trace quantities of 3,3'-dichlorobenzidine can be generated. 3,3'-dichlorobenzidine is classified as a suspect carcinogen by NTP and IARC, is classified as Acute Toxicity category 4 and Carcinogen Category 1B according to 1272/2008EC (CLP), and is regulated by OSHA as a suspect carcinogen. In order to avoid the generation of and exposure to 3,3'-dichlorobenzidine, do not use diarylide pigments in polymers when temperatures exceed 200°C (392°F). Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

POTENTIAL HEALTH EFFECTS

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DB4090A ORANGE (SM1163)

Version Number 1.2
Revision Date 01/01/2013

Page 2 of 8
Print Date 1/2/2013

Routes of Exposure: : Inhalation, Skin contact, Ingestion

Acute exposure

- Inhalation : Inhalation of airborne droplets may cause irritation of the respiratory tract.
- Ingestion : May be harmful if swallowed.
- Eyes : May cause eye and skin irritation.
- Skin : Experience shows no unusual dermatitis hazard from routine handling.

Chronic exposure : Refer to Section 11 for Toxicological Information.

Medical Conditions : None known.

Aggravated by Exposure:

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 of doubt seek medical advice.
- Ingestion : Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.
- Eyes : Rinse immediately with plenty of water for at least 15 minutes. If 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 : no data available
- Flammable Limits
 - Upper explosion limit : no data available
 - Lower explosion limit : no data available
- Auto-ignition temperature : Not applicable
- Suitable extinguishing media : Carbon dioxide blanket, Water spray, Dry powder, Foam.
- Special Fire Fighting Procedures : Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
- Unusual Fire/Explosion Hazards : May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DB4090A ORANGE (SM1163)

Version Number 1.2
Revision Date 01/01/2013

Page 3 of 8
Print Date 1/2/2013

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
- Environmental precautions : The product should not be allowed to enter drains, water courses or the soil. Should not be released into the environment.
- Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in appropriate container for disposal.

7. HANDLING AND STORAGE

- Handling : Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials.
- Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a cool dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Respiratory protection : No personal respiratory protective equipment normally required.
- 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 safety practice. Wash hands before breaks and at the end of workday.
- Engineering measures : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

Exposure limit(s)

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DB4090A ORANGE (SM1163)

Version Number 1.2
Revision Date 01/01/2013

Page 4 of 8
Print Date 1/2/2013

Components	Value	Exposure time	Exposure type	List:
Stoddard solvent	100 ppm	Time Weighted Average (TWA):		ACGIH
	350 mg/m3	Recommended exposure limit (REL):		NIOSH
	1,800 mg/m3	Ceiling Limit Value and Time Period (if specified):		NIOSH
	500 ppm 2,900 mg/m3	PEL:		OSHA Z1
	100 ppm 525 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	100 ppm 523 mg/m3	Time Weighted Average (TWA):		MX OEL
	200 ppm 1,050 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
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	: liquid	Evaporation rate	: Not established
Appearance	: viscous, liquid	Specific Gravity	: Not determined
Colour	: ORANGE	Bulk density	: Not applicable
Odour	: very faint	Vapour pressure	: Not determined
Melting point/range	: not applicable	Vapour density	: Not determined
Boiling Point:	: not applicable	pH	: Not applicable
Water solubility	: immiscible		

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	: Incompatible with strong acids and oxidizing agents., Avoid contact with acetal homopolymers and acetal copolymers during processing.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DB4090A ORANGE (SM1163)

Version Number 1.2
Revision Date 01/01/2013

Page 5 of 8
Print Date 1/2/2013

Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 °C (350 °F), after 10 minutes at 204 °C (400 °F), and within 5 minutes at 232 °C (450 °F). Do not use this pigment in polymers at temperatures over 200°C (392°F). Decomposition of diarylide pigments in polymers at temperatures over 200°C (392°F) may produce trace amounts of monoazo dyes, which in turn can decompose to produce aromatic amines. The amount and type of degradation products formed depend on the dwell time, formulation and processing conditions as well as temperature. As conditions become more severe, as when temperatures move into the 240-300°C (464-572°F) range, trace quantities of 3,3'-dichlorobenzidine can be generated. 3,3'-dichlorobenzidine is classified as a suspect carcinogen by NTP and IARC, is classified as Acute Toxicity category 4 and Carcinogen Category 1B according to 1272/2008EC (CLP), and is regulated by OSHA as a suspect carcinogen. In order to avoid the generation of and exposure to 3,3'-dichlorobenzidine, do not use diarylide pigments in polymers when temperatures exceed 200°C (392°F). Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

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

CAS-No.	Chemical Name	Effect	Target Organ
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
8052-41-3	Stoddard solvent	Systemic effects	Kidney, Liver, central nervous system (CNS).
		Irritant	Eyes, Skin, 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
8052-41-3	Stoddard solvent	Oral LD50	> 5,000 mg/kg	rat
		Dermal LD50	> 3,000 mg/kg	rabbit

Carcinogenicity

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

POLYONE CORPORATION**MATERIAL SAFETY DATA SHEET****DB4090A ORANGE (SM1163)**Version Number 1.2
Revision Date 01/01/2013Page 6 of 8
Print Date 1/2/2013

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

IARC Carcinogen Classifications:

- 1 - The component is carcinogenic to humans.
- 2A - The component is probably carcinogenic to humans.
- 2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

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

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATIONS

- Product : Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with 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, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

14. TRANSPORT INFORMATION

- U.S. DOT Classification : Refer to specific regulation.
- 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

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DB4090A ORANGE (SM1163)

Version Number 1.2
Revision Date 01/01/2013

Page 7 of 8
Print Date 1/2/2013

TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

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

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Bis (2-ethylhexyl) adipate	103-23-1	10.00 - 30.00	
Ethoxylated octylphenol	9036-19-5	0.10 - 1.00	
		0.10 - 1.00	
		0.10 - 1.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
103-23-1
8052-41-3

DSL : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

Australia AICS : Not determined

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DB4090A ORANGE (SM1163)

Version Number 1.2

Revision Date 01/01/2013

Page 8 of 8

Print Date 1/2/2013

China IECS : Not determined

Europe EINECS : Listed

Japan ENCS : Not determined

Korea KECI : Not determined

Philippines PICCS : Not determined

16. OTHER INFORMATION

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