



POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DB3680 CLEAR FLAME RETARDANT

Version Number 1.1
Revision Date 09/02/2003

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Print Date 11/12/2011

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
2700 Papin Street, St. Louis, MO 63103

NON-EMERGENCY TELEPHONE : Product Stewardship, (314) 771-1800
Emergency telephone number : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**

Product name : DB3680 CLEAR FLAME RETARDANT
Product code : FO20004002
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Components	CAS-No.	Weight %
Triphenyl phosphate	115-86-6	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.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Skin contact, Ingestion

Acute exposure

Inhalation : Resin particles, like other inert materials, can be mechanically irritating.
Ingestion : May be harmful if swallowed.
Eyes : Particulates, like other inert materials can be mechanically irritating.
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:

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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, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.
- Skin : Wash off with soap and plenty of water. If skin irritation persists seek medical attention.

5. FIRE-FIGHTING MEASURES

- Flash point : Not applicable
- Flammable Limits
 - Upper explosion limit : Not applicable
 - Lower explosion limit : Not applicable
- Autoignition temperature : Not relevant
- 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.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
- Environmental precautions : Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.
- Methods for cleaning up : Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

7. HANDLING AND STORAGE

- Handling : Take measures to prevent the build up of electrostatic charge. 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

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these materials.

Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Respiratory protection : No personal respiratory protective equipment normally required. If dusty conditions occur wear appropriate respiratory protection.
- 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)

Components	Value	Exposure time	Exposure type	List:
Triphenyl phosphate	3 mg/m3	Time Weighted Average (TWA):		ACGIH
Triphenyl phosphate	3 mg/m3	PEL:	Dust.	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : Solid
- Appearance : powder, granular
- Color : NO PIGMENT
- Odor : Very faint
- Melting point/range : Not determined
- Boiling Point: : Not applicable
- Water solubility : Insoluble
- Evaporation rate : Not applicable.
- Specific Gravity : Not determined
- Bulk density : Not determined
- Vapor pressure : Not applicable
- Vapor density : Not applicable
- pH : Not applicable

10. STABILITY AND REACTIVITY

- Stability : Stable.
- Hazardous Polymerization : Will not occur.
- Conditions to avoid : To avoid thermal decomposition, do not overheat. Keep away from

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oxidizing agents and open flame.

- Incompatible Materials : Incompatible with strong acids and oxidizing agents. Avoid contact with acetal homopolymers and acetal copolymers during processing.
- 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 (approximately 30 minutes or more) above 392 °F (200 °C) or short term heating at 482 °F (250 °C) may result in product decomposition and evolution of carbon monoxide and hydrogen chloride.

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
115-86-6	Triphenyl phosphate	Systemic effects	Respiratory system, blood and blood forming system, central nervous 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
115-86-6	Triphenyl phosphate	Oral LD50	3,500 mg/kg	rat
		Dermal LD50	> 7,900 mg/kg	rabbit

12. ECOLOGICAL INFORMATION

- Persistence and degradability : Not readily biodegradable.
- Environmental Toxicity : Adverse ecological impact is not known or expected under normal use.
- 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

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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 : Not regulated for transportation.
ICAO/IATA : Not regulated for transportation.
IMO / IMDG : Not regulated for transportation.

15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.
TSCA Status : All components of this product are listed on or exempt from the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Not applicable

California Proposition 65 : WARNING! This product contains a chemical known to the State of California to cause cancer.

SARA Title III Section 302 Extremely Hazardous Substance

Not applicable

SARA Title III Section 313 Toxic Chemicals:

Not applicable
Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Not applicable

WHMIS Classification : D2B

WHMIS Ingredient Disclosure List

CAS-No.

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115-86-6

DSL : All of the components of this product are listed on the Canadian Inventories or are exempt. However, at least one component of this product is on the Canadian Non-Domestic Substances List (NDSL). Quantity use in Canada is restricted by regulations.

National Inventories:

Australia AICS : Not determined.
China IECS : Listed.
Europe EINECS : Not determined.
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 when used in combination with any other materials and/or in any particular process or processing conditions.