



# POLYONE CORPORATION

## MATERIAL SAFETY DATA SHEET

### QUAKER BRONZE

Version Number 1.0  
Revision Date 06/07/2004

Page 1 of 8  
Print Date 11/14/2011

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**POLYONE CORPORATION**  
33587 Walker Road, Avon Lake, OH 44012

Telephone : Product Stewardship (770) 271-5902  
**Emergency telephone number** : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**

Product name : QUAKER BRONZE  
Product code : CC10055088  
Chemical Name : Mixture  
CAS-No. : Mixture  
Product Use : Industrial Applications

#### 2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
8-Oxa-3,5-dithia-4-stannatetradecanoic acid, 10-ethyl-4,4-dimethyl-7-oxo-, 2-ethylhexyl ester	57583-35-4	1 - 5
Aluminum	7429-90-5	1 - 5
Carbon black	1333-86-4	1 - 5
Rutile, antimony chromium buff	68186-90-3	1 - 5
Stannane, methyltris(2-ethylhexyloxycarbonylmethylthio)-	57583-34-3	1 - 5
Calcium carbonate	1317-65-3	5 - 10

#### 3. HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

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.

##### POTENTIAL HEALTH EFFECTS

**Routes of Exposure:** : Inhalation, Ingestion, Skin contact

##### Acute exposure

Inhalation : Particulates, like other inert materials can be mechanically irritating. Excessive inhalation of product vapors, especially during heating or

**POLYONE CORPORATION****MATERIAL SAFETY DATA SHEET****QUAKER BRONZE**Version Number 1.0  
Revision Date 06/07/2004Page 2 of 8  
Print Date 11/14/2011

Ingestion : processing, may be irritating to respiratory system.  
: 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:**

**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 applicable  
Suitable extinguishing media : Carbon dioxide blanket, water spray, dry powder, foamnone.

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 : Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), other hazardous materials, and smoke are all possible. 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

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**QUAKER BRONZE**

Version Number 1.0  
Revision Date 06/07/2004

Page 3 of 8  
Print Date 11/14/2011

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.

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.

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**

**QUAKER BRONZE**

Version Number 1.0  
Revision Date 06/07/2004

Page 4 of 8  
Print Date 11/14/2011

Components	Value	Exposure time	Exposure type	List:
8-Oxa-3,5-dithia-4-stannatetradecanoic acid, 10-ethyl-4,4-dimethyl-7-oxo-, 2-ethylhexyl ester	0.1 mg/m3	PEL:	as Sn	OSHA Z1
	0.1 mg/m3	Time Weighted Average (TWA):	as Sn	ACGIH
	0.2 mg/m3	Short Term Exposure Limit (STEL):	as Sn	ACGIH
Aluminum	10 mg/m3	Time Weighted Average (TWA):	Dust.	ACGIH
	5 mg/m3	Time Weighted Average (TWA):	Welding fume. as Al	ACGIH
	15 mg/m3	PEL:	Total dust. as Al	OSHA Z1
	5 mg/m3	PEL:	Respirable dust. as Al	OSHA Z1
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
Carbon black	3.5 mg/m3	Time Weighted Average (TWA):	Total dust. as carbon black	ACGIH
	3.5 mg/m3	PEL:	Total dust. as carbon black	OSHA Z1
Rutile, antimony chromium buff	1 mg/m3	PEL:		OSHA Z1
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
Stannane, methyltris(2-ethylhexyloxycarbonylmethylthio)-	0.1 mg/m3	PEL:	as Sn	OSHA Z1
	0.1 mg/m3	Time Weighted Average (TWA):	as Sn	ACGIH
	0.2 mg/m3	Short Term Exposure Limit (STEL):	as Sn	ACGIH

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: Solid	Evaporation rate	: Not applicable
Appearance	: Pellets	Specific Gravity:	: Not determined
Color	: BROWN	Bulk density	: Not established
Odor	: Very faint	Vapor pressure	: Not applicable
Melting point/range	: Not determined	Vapour density	: Not applicable
Boiling Point:	: Not applicable	pH	: Not applicable
Water solubility	: Insoluble		

**10. STABILITY AND REACTIVITY**

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**QUAKER BRONZE**

Version Number 1.0  
Revision Date 06/07/2004

Page 5 of 8  
Print Date 11/14/2011

- Stability : Stable.
- 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 : Avoid contact with strong oxidizers. Also, avoid contact with acetal or acetal copolymers and with amine containing materials during processing. At processing conditions, these materials are mutually destructive and involve rapid degradation. Thoroughly purge and mechanically clean processing equipment to avoid even trace quantities of these materials from coming in contact with each other. Prevent cross contamination of feedstocks.
- Hazardous decomposition products : Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), 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
57583-35-4	8-Oxa-3,5-dithia-4-stannat etradecanoic acid, 10-ethyl-4,4-dimethyl-7-oxo-, 2-ethylhexyl ester	Irritant	Eyes, Skin.
7429-90-5	Aluminum	Irritant	Skin, Respiratory system.
		Systemic effects	Eyes, Skin, Respiratory system.
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
68186-90-3	Rutile, antimony chromium buff	Irritant	Eyes, Skin, Respiratory system.
57583-34-3	Stannane, methyltris(2-ethylhexyloxy carbonylmethylthio)-	Irritant	Eyes, Skin.
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, Respiratory system.

**LC50 / LD50**

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

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**QUAKER BRONZE**

Version Number 1.0  
Revision Date 06/07/2004

Page 6 of 8  
Print Date 11/14/2011

CAS-No.	Chemical Name	Route	Value	Species
1333-86-4	Carbon black	Oral LD50 Dermal LD50	> 15,400 mg/kg > 3 gm/kg	rat rabbit
57583-34-3	Stannane, methyltris(2-ethylhexylox ycarbonylmethylthio)-	Oral LD50	920 mg/kg	rat

**Additional Health Hazard Information:**

**Carbon black 1333-86-4 Carcinogenicity:** Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). The IARC 2B listing only pertains to airborne, unbound carbon black particles of respirable size. Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

**Additional Health Hazard Information:**

**Rutile, antimony chromium buff 68186-90-3** Can cause eye irritation. Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: antimony measles (a red, pimply rash).

**12. ECOLOGICAL INFORMATION**

- Persistence and degradability : Not readily biodegradable.
- Environmental Toxicity : Chemicals are not readily available as they are bound within the matrix of the polymer.
- Bioaccumulation Potential : Chemicals are not readily available as they are bound within the matrix of the polymer.
- Additional advice : No data available

**13. DISPOSAL CONSIDERATIONS**

- Product : Like most thermoplastic plastics the product can be recycled. 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.

**POLYONE CORPORATION****MATERIAL SAFETY DATA SHEET****QUAKER BRONZE**Version Number 1.0  
Revision Date 06/07/2004Page 7 of 8  
Print Date 11/14/2011**14. TRANSPORT INFORMATION**

U.S. DOT Classification : Not regulated for transportation.  
ICAO/IATA (air) : 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 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:

Chemical Name	CAS-No.	Weight %
ALUMINUM (FUME OR DUST)	7429-90-5	4.18
CHROMIUM III COMPOUNDSANTIMONY COMPOUNDS	68186-90-3	3.52

## Canadian Regulations:

## National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Aluminum	7429-90-5	4.18	12
Rutile, antimony chromium buff	68186-90-3	3.52	68
Rutile, antimony chromium buff	68186-90-3	3.52	17

**POLYONE CORPORATION****MATERIAL SAFETY DATA SHEET****QUAKER BRONZE**

Version Number 1.0  
Revision Date 06/07/2004

Page 8 of 8  
Print Date 11/14/2011

WHMIS Classification : D2A

**WHMIS Ingredient Disclosure List**

CAS-No.
57583-35-4
7429-90-5
1333-86-4
68186-90-3
57583-34-3

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

**National Inventories:**

Australia AICS : Not determined  
China IECS : Not determined  
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.