



POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

BANDLOCK BROWN

Version Number 1.0
Revision Date 04/29/2005

Page 1 of 6
Print Date 11/17/2011

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 : BANDLOCK BROWN
Product code : CC10069474
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Manganese titanium tungsten oxide ((Mn,Ti,W)O2)	144437-66-1	30 - 60

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 : Resin particles, like other inert materials, can be mechanically irritating.
Ingestion : May be harmful if swallowed.
Eyes : Resin particles, like other inert materials, are mechanically irritating to eyes.
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:

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

BANDLOCK BROWN

Version Number 1.0
Revision Date 04/29/2005

Page 2 of 6
Print Date 11/17/2011

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 (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

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.
- Storage : Keep containers dry and tightly closed to avoid moisture absorption

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

BANDLOCK BROWN

Version Number 1.0
Revision Date 04/29/2005

Page 3 of 6
Print Date 11/17/2011

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)

Components	Value	Exposure time	Exposure type	List:
Manganese titanium tungsten oxide ((Mn,Ti,W)O2)	5 mg/m3	Time Weighted Average (TWA):	as W	ACGIH
	10 mg/m3	Short Term Exposure Limit (STEL):	as W	ACGIH
	5 mg/m3	Ceiling Limit Value:	as Mn	OSHA Z1
	0.2 mg/m3	Time Weighted Average (TWA):	as Mn	ACGIH

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : Solid
- Appearance : Pellets
- Color : BROWN
- 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 established
- Vapor pressure : Not applicable
- Vapour density : Not applicable
- pH : Not applicable

10. STABILITY AND REACTIVITY

- Stability : Stable.
- Hazardous Polymerization : Will not occur.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

BANDLOCK BROWN

Version Number 1.0
Revision Date 04/29/2005

Page 4 of 6
Print Date 11/17/2011

- 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.
- Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

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
144437-66-1	Manganese titanium tungsten oxide ((Mn,Ti,W)O ₂)	Irritant	Eyes, Skin.

Additional Health Hazard Information:

Manganese titanium tungsten oxide ((Mn,Ti,W)O₂) 144437-66-1 Prolonged or repeated breathing of this material may result in chronic bronchitis. Exposure to freshly formed fumes from heated metal may cause "metal fume fever".

12. ECOLOGICAL INFORMATION

- Persistence and degradability : Not readily biodegradable.
- Environmental Toxicity : Chemicals are not readily available as they are bound within the polymer matrix.
- Bioaccumulation Potential : Chemicals are not readily available as they are bound within the polymer matrix.
- 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

BANDLOCK BROWN

Version Number 1.0
Revision Date 04/29/2005

Page 5 of 6
Print Date 11/17/2011

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 : Not applicable
65

SARA Title III Section 302 Extremely Hazardous Substance
Not applicable

SARA Title III Section 313 Toxic Chemicals:

Chemical Name	CAS-No.	Weight %
MANGANESE COMPOUNDS	144437-66-1	35.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Manganese titanium tungsten oxide ((Mn,Ti,W)O2)	144437-66-1	35.00	147

WHMIS Classification : Not controlled.
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).

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

BANDLOCK BROWN

Version Number 1.0
Revision Date 04/29/2005

Page 6 of 6
Print Date 11/17/2011

Quantity use in Canada is restricted by regulations.

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.