

## MATERIAL SAFETY DATA SHEET

**S3864 BROWN 471 HS**Version Number 1.0  
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Print Date 11/11/2011**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 : S3864 BROWN 471 HS

Product code : FO20004991

Chemical Name : Mixture

CAS-No. : Mixture

Product Use : Industrial Applications

**2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS**

Components	CAS-No.	Weight %
Azodicarbonamide	123-77-3	1 - 5
Quartz	14808-60-7	0.1 - 1
Diphenyloxide-4,4'-disulfohydrazide	80-51-3	1 - 5
Iron oxide	1309-37-1	1 - 5
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Calcium carbonate	1317-65-3	10 - 30

**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 : Inhalation of airborne droplets may cause irritation of the respiratory tract.

Ingestion : May be harmful if swallowed.

Eyes : May cause eye/skin irritation.

Skin : Experience shows no unusual dermatitis hazard from routine handling.

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Print Date 11/11/2011**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. FIRE-FIGHTING MEASURES****Flash point** : No data available.**Flammable Limits**

Upper explosion limit : No data available.

Lower explosion limit : No data available.

**Autoignition temperature** : Not applicable.**Suitable extinguishing media** : Carbon dioxide blanket, dry powder, foam, Water spray.**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** : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in appropriate container for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

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- 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 : Under normal handling conditions a respirator may not be 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)

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Components	Value	Exposure time	Exposure type	List:
Calcium carbonate	10 mg/m3	Time Weighted Average (TWA):	Total dust.	ACGIH
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
Diphenyloxide-4,4'-disulfohydrazide	0.1 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
Iron oxide	5 mg/m3	Time Weighted Average (TWA):	Dust and fume. as Fe	ACGIH
Quartz	0.05 mg/m3	Time Weighted Average (TWA):	Respirable dust.	ACGIH
Quartz	0.098 mg/m3	Time Weighted Average (TWA):	Respirable dust.	MX OEL
	0.29 mg/m3	Time Weighted Average (TWA):	Total dust.	MX OEL
	0.05 mg/m3	Time Weighted Average (TWA):		ACGIH
Quartz		Time Weighted Average (TWA):		MX OEL
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
Silica, amorphous, fumed, crystal-free	20 mppcf	PEL:	Total dust.	Z3
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):		ACGIH
Titanium dioxide	15 mg/m3	PEL:	Total dust.	OSHA Z1

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: Liquid	Evaporation rate	: Not established
Appearance	: Viscous, Liquid	Specific Gravity	: Not determined
Color	: BROWN	Bulk density	: Not applicable.
Odor	: Very faint	Vapor pressure	: Not determined
Melting point/range	: Not applicable	Vapor density	: Not determined
Boiling Point:	: Not applicable	pH	: Not applicable.
Water solubility	: Immiscible		

**10. STABILITY AND REACTIVITY**

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	: Incompatible with strong acids and oxidizing agents. Avoid contact with acetal homopolymers and acetal copolymers during processing.
Hazardous decomposition	: Carbon dioxide (CO <sub>2</sub> ), carbon monoxide (CO), oxides of nitrogen

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products

(NO<sub>x</sub>), 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).

**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
123-77-3	Azodicarbonamide	sensitizer	Respiratory system.
14808-60-7	Quartz	Systemic effects	Eyes, Respiratory system.
80-51-3	Diphenyloxide-4,4'-disulfohydrazide	Irritant	Eyes, Skin.
1309-37-1	Iron oxide	Systemic effects	Respiratory system.
112945-52-5	Silica, amorphous, fumed, crystal-free	Irritant	Eyes, Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
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:

CAS-No.	Chemical Name	Route	Value	Species
123-77-3	Azodicarbonamide	LC50 Oral LD50 Dermal LD50	200 mg/l > 6,400 mg/kg > 2,000 mg/kg	rat rat rabbit
112945-52-5	Silica, amorphous, fumed, crystal-free	Oral LD50	3,160 mg/kg	rat

## Carcinogenicity:

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

CAS-No.	Chemical Name	OSHA	IARC	NTP

## 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.

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**Additional Health Hazard Information:**

**Azodicarbonamide 123-77-3 Sensitizer to the respiratory system with repeated minimal inhalation. While no chronic health problems have been identified, individuals with respiratory problems should avoid inhalation exposure to this material.**

**Additional Health Hazard Information:**

**Quartz 14808-60-7 This material in its free releasable form may cause respiratory tract irritation, and possibly silicosis which is a scarring of the lungs.**

**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	: 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.

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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:

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
1309-37-1

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

National Inventories:

Australia AICS : Listed.

China IECS : Listed.

Europe EINECS : Not determined.

Japan ENCS : Not determined.

Korea KECI : Not determined.

Philippines PICCS : Not determined.

**16. OTHER INFORMATION**

POLYONE CORPORATION



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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.