

MATERIAL SAFETY DATA SHEET

POLYBOUND 424 CUREBLEND-80

 Version Number 1.0
 Revision Date 11/26/2002

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1. PRODUCT AND COMPANY IDENTIFICATION
POLYONE CORPORATION
 14330 Kinsman Road, Burton, OH 44021

NON-EMERGENCY TELEPHONE : Product Stewardship (440)-834-4644
 Emergency telephone number : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**

Product name : POLYBOUND 424 CUREBLEND-80
 Product code : AD0000043410
 Chemical Name : Mixture
 CAS-No. : Mixture
 Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Components	CAS-No.	Weight %
2-Mercaptobenzothiazole	149-30-4	5 - 10
Di-2-benzothiazolyl disulfide	120-78-5	5 - 10
Silica, amorphous	7631-86-9	1 - 5
Petroleum distillates, hydrotreated light naphthenic	64742-53-6	5 - 10
Petroleum distillates, hydrotreated heavy naphthenic	64742-52-5	10 - 30
Tetramethyl thiuram disulfide (Thiram)	137-26-8	10 - 30
Zinc oxide	1314-13-2	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.

MARKETED BY
HARWICK STANDARD
 DISTRIBUTION CORPORATION
 60 S. Selberling Street • Akron, Ohio 44305

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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:

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 : Water spray, dry powder, foam, carbon dioxide (CO₂).

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 : None

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

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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 when handling the product itself. See "Engineering Measures" section below for precautions to be taken when heating or processing this material.
- 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. Adequate ventilation and/or appropriate respiratory protection may also be necessary to minimize employee exposure to processing vapors.

Exposure limit(s)

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Components	Value	Exposure time	Exposure type	List:
Petroleum distillates, hydrotreated heavy naphthenic	500 ppm 2,000 mg/m3	PEL:	Vapor.	OSHA Z1
Petroleum distillates, hydrotreated light naphthenic	500 ppm 2,000 mg/m3	PEL:	Vapor.	OSHA Z1
Silica, amorphous	20 mppcf	PEL:	Total dust.	OSHA
Silica, amorphous	20 mppcf	PEL:	Total dust.	Z3
Zinc oxide	10 mg/m3	Time Weighted Average (TWA):	Total dust. as Zn	ACGIH
	5 mg/m3	PEL:	Respirable dust. as Zn	OSHA Z1
	15 mg/m3	PEL:	Total dust. as Zn	OSHA Z1
Tetramethyl thiuram disulfide (Thiram)	1 mg/m3	Time Weighted Average (TWA):	Total dust.	ACGIH
Tetramethyl thiuram disulfide (Thiram)	5 mg/m3	PEL:	Total dust.	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Solid	Evaporation rate	: Not applicable.
Appearance	: Crumb	Specific Gravity	: Not determined
Color	: NO PIGMENT	Bulk density	: Not established
Odor	: Characteristic rubber odor	Vapor pressure	: Not applicable
Melting point/range	: Not determined	Vapor density	: Not applicable
Boiling Point:	: Not applicable	pH	: Not applicable
Water solubility	: Insoluble		

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.
Hazardous decomposition products	: Carbon dioxide (CO ₂), 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:

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CAS-No.	Chemical Name	Effect	Target Organ
149-30-4	2-Mercaptobenzothiazole	toxic	Refer to LC50 / LD50 Data on MSDS..
120-78-5	Di-2-benzothiazolyl disulfide	Systemic effects	reproductive system.
7631-86-9	Silica, amorphous	Irritant	Eyes, Respiratory system.
64742-53-6	Petroleum distillates, hydrotreated light naphthenic	Irritant	Eyes, Skin.
64742-52-5	Petroleum distillates, hydrotreated heavy naphthenic	Irritant	Eyes, Skin.
137-26-8	Tetramethyl thiuram disulfide (Thiram)	Irritant	Eyes, Skin, Respiratory system.
		sensitizer	Eyes, Skin, Respiratory system.
		Systemic effects	Liver, Kidney, central nervous system.
		toxic	Refer to LC50 / LD50 Data on MSDS..
1314-13-2	Zinc oxide	Systemic effects	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
149-30-4	2-Mercaptobenzothiazole	LC50	> 1270 mg/m ³	rat
		Oral LD50	100 mg/kg	rat
		Dermal LD50	> 7,940 mg/kg	rabbit
120-78-5	Di-2-benzothiazolyl disulfide	Oral LD50	> 12 gm/kg	rat
		Dermal LD50	> 7,940 mg/kg	rabbit
137-26-8	Tetramethyl thiuram disulfide (Thiram)	LC50	500 mg/m ³	rat
		Oral LD50	210 mg/kg	rabbit
1314-13-2	Zinc oxide	LC50	2500 mg/m ³	mouse
		Oral LD50	7,950 mg/kg	mouse

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	: Not applicable

13. DISPOSAL CONSIDERATIONS

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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 : On TSCA List

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	% in Product	RQ for component	RQ for Mixture/Product
Tetramethyl thiuram disulfide (Thiram)	137-26-8	10.5633	010 lbs	95 LB

California Proposition 65 : This product does not contain a substance listed by California Prop 65.

SARA Title III Section 313 Toxic Chemicals:

Chemical Name	CAS-No.	Weight %
2-MERCAPTOBENZOTHIAZOLE (MBT)	149-30-4	08.80
ZINC COMPOUNDS	1314-13-2	35.55

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Chemical Name	CAS-No.	Weight %
THIRAM	137-26-8	10.56

Canadian Regulations:

WHMIS Classification : D1B

WHMIS Ingredient Disclosure List

CAS-No.
7631-86-9
1314-13-2
120-78-5
137-26-8

DSL : Listed.

National Inventories:

Australia AICS : Listed.

China IECS : Listed.

Europe EINECS : Listed.

Japan ENCS : Not determined.

Korea KECI : Listed.

Philippines PICCS : Listed.

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.