

MATERIAL SAFETY DATA SHEET

ACCU-WAY 3978

Version Number 1.0 Revision Date 10/07/2002

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION

14330 Kinsman Road, Burton, OH 44021

NON-EMERGENCY

Product Stewardship (440)-834-4644

TELEPHONE

Emergency telephone

CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure

or accident).

Product name

number

ACCU-WAY 3978 AD30000290OC

Product code

Mixture

Chemical Name CAS-No.

Mixture

Product Use

Industrial Applications

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Components	CAS-No.	Weight %
2-Mercaptobenzothiazole	149-30-4	10 - 30
Ziram	137-30-4	10 - 30
Tetramethyl thiuram disulfide (Thiram)	137-26-8	10 - 30
Tetrakis(diethyldithiocarbamato-	20941-65-5	10 - 30
S,S')tellurium		

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. In addition, heating or processing this material may result in product degradation or byproduct formation creating additional hazards. See Sections 8 and 11 for additional details.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:

Inhalation, Skin contact, Ingestion

Acute exposure

Inhalation

: Irritating to respiratory system.

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.



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Medical Conditions

Aggravated by Exposure:

None known.

4. FIRST AID MEASURES

Inhalation : Move to fresh air. When symptoms persist, or in all cases of doubt,

seek medical advice.

Ingestion : Do not induce vomiting without medical advice. Seek medical

attention if necessary.

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.

5. FIRE-FIGHTING MEASURES

Flash point : Not applicable

Flammable Limits

Upper explosion limit

Lower explosion limit

Autoignition temperature

Suitable extinguishing media

Not applicable
No data available.

Not applicable

Use water spray, alcohol-resistant foam, dry chemical or carbon

dioxide..

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 : Avoid breathing dust. Avoid dust formation. Ensure adequate

ventilation. 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. Do not create a powder

cloud by using a brush or compressed air. Shovel into suitable container for disposal. Refer to Section 13 of this MSDS for proper

disposal methods.

7. HANDLING AND STORAGE

Handling : Provide for appropriate exhaust ventilation and dust collection at

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machinery. Avoid formation of dust and aerosols.

Storage

Store in a cool dry place. Keep away from open flames, hot surfaces

and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Employees using respirators must be properly trained. Employers must follow applicable regulations such as OSHA 29 CFR 1910.134.

Eye/Face Protection

Safety glasses with side-shields.

Hand protection

Protective gloves.

Skin and body protection

Long sleeved clothing.

Additional Protective

Safety shoes

Measures

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety

practice. Wash hands before breaks and immediately after handling

the product.

Engineering measures

Adequate ventilation and/or appropriate respiratory protection may

also be necessary to minimize employee exposure to processing

vapors.

Exposure limit(s)

Components	Value	Exposure time	Exposure type	List:
Tetramethyl thiuram	1 mg/m3	Time Weighted Average	Total dust.	ACGIH
disulfide (Thiram)		(TWA):		
Tetramethyl thiuram	5 mg/m3	PEL:	Total dust.	OSHA Z1
disulfide (Thiram)				
Tetrakis(diethyldithioc	0.1 mg/m3	PEL:	as Te	OSHA Z1
arbamato-				
S,S')tellurium				
Tetrakis(diethyldithioc	0.1 mg/m3	Time Weighted Average	as Te	ACGIH
arbamato-		(TWA):		
S,S')tellurium				

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance : Solid

Evaporation rate

Not applicable.

Appearan Color : powder, Crumb, Pellets : NO PIGMENT Specific Gravity
Bulk density

: Not determined : Not determined

Odor

: Very faint

Vapor pressure

: Not applicable.



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Melting point/range Boiling Point:

Not applicableNot applicable.

Vapor density : pH :

: Not applicable

Water solubility

: Negligible

Not applicable

10. STABILITY AND REACTIVITY

Stability

Stable.

Hazardous Polymerization

Will not occur.

Conditions to avoid

Heat, flames and sparks.

Incompatible Materials

strong acids and oxidizing agents

Hazardous decomposition

products

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen

(NOx), 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
149-30-4	2-Mercaptobenzothiazole	toxic	Refer to LC50 / LD50 Data on MSDS
137-30-4	Ziram	Systemic effects	Liver, Kidney, reproductive system.
		toxic	Refer to LC50 / LD50 Data on MSDS
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
20941-65-5	Tetrakis(diethyldithiocarba mato-S,S')tellurium	Irritant	Eyes, Skin.

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/m3	rat
	_	Oral LD50	100 mg/kg	rat
		Dermal LD50	> 7,940 mg/kg	rabbit



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137-30-4	Ziram	LC50	81 mg/m3	rat	·
		Oral LD50	267 mg/kg	rat	
		Dermal LD50	> 2 gm/kg	rabbit	
137-26-8	Tetramethyl thiuram	LC50	500 mg/m3	rat	
	disulfide (Thiram)	Oral LD50	210 mg/kg	rabbit	

Additional Health Hazard Information:

Ziram 137-30-4 Highly toxic, irritant and a skin sensitizer. This material if ingested my cause an Antabuse response when alcohol is ingested. This Antabuse effect includes nausea, vomiting, abdominal cramps and/or flushing.

12. ECOLOGICAL INFORMATION

Persistence and degradability

No data available.

Environmental Toxicity

No data available.

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 the TSCA inventory or

are exempt.



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US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	% in Product	RQ for component	RQ for
				Mixture/Product
Ziram	137-30-4	15.3800	001 lbs	7 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	149-30-4	19.03
(MBT)		
THIRAM	137-26-8	19.03
COPPER COMPOUNDS	137-29-1	15.07
ZINC COMPOUNDS	137-30-4	15.38

Canadian Regulations:

WHMIS Classification : D1B

WHMIS Ingredient Disclosure List

CAS-No.
137-26-8
137-29-1
137-30-4
20941-65-5

DSL

: Listed.

National Inventories:

Australia AICS

: Listed.

China IECS

: Not determined.

Europe EINECS

: Listed.

Japan ENCS

: Not determined.

Korea KECI

: Listed.



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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 used in combination with any other materials or in any process, unless specified in the text.