

MATERIAL SAFETY DATA SHEET

Version Number 1.0
 Revision Date 5/01/2002

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 Print Date 2/2/2005

1. PRODUCT AND COMPANY IDENTIFICATION

PORTAGE PRECISION POLYMERS, INC.
 215 West Lake Street, Ravenna, Ohio 44266

NON-EMERGENCY TELEPHONE : Product Stewardship 330.286.6327
 EMERGENCY TELEPHONE NUMBER : CHEMTREC 1.800.424.9300 (24 hours for spill, leak, fire, exposure, or accident)

Product name : 72 EPDM
 Chemical Name : Mixture
 CAS-No. : Mixture
 Product Use : Industrial Applications

2. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Component	CAS-NO.	Weight %
Alum Oxide	1305-78-8	1 - 5
Zinc Oxide	1314-13-2	1 - 5
Paraffinic	84741-88-4	10 - 30
Carbon black	1333-86-4	30 - 60

3. HAZARDOUS IDENTIFICATION

This mixture has not been evaluated as a whole. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some fumes may be released upon heating or cross-linking and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect his/her employees from exposure. See sections 3 and 11 for special precautions.

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.

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Chronic exposure : Refer to Section 11 for Toxicological Information.

Medical Conditions : None known.

Aggravated by Exposure:

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 as soon as possible.

Skin : Wash off with soap and water. If skin irritation persists seek medical attention as soon as possible.

5. FIRE-FIGHTING MEASURES

Flash point : Not applicable

Flammable Limits

Upper explosion limit : Not applicable

Lower explosion limit : Not applicable

Auto-ignition temperature : Not Relevant

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

Special Fire Fighting Procedures : Full-face 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 clean-up, 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 for proper disposal.

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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 is normally required when handling the product itself. See "Engineering Measures" section below for precautions to be taken when heating/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 before work-breaks and at the end of the 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 vapors while processing this material.

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Exposure Limit(s)

Component	Value	Exposure Time	Exposure Type	List
Calcium oxide	2 mg/m ³	Time Weighted Average (TWA)	Dust	AGCY.
	5 mg/m ³	PEL:	Dust	OSHA Z1
Carbon black	3.5 mg/m ³	Time Weighted Average (TWA)	Total dust as carbon black	AGCY.
	3.5 mg/m ³	PEL:	Total dust as carbon black	OOTA Z1
Petroleum distillates, solvent-refined heavy aromatic	200 ppm; 2000 mg/m ³	PEL:		OSHA Z1
Zinc oxide	10 mg/m ³	Time Weighted Average (TWA)	Total dust as zinc	ACGIH
	5 mg/m ³	PEL:	Respirable dust as zinc	OSHA Z1
	15 mg/m ³	PEL:	Total dust as zinc	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Solid	Evaporation rate	: Not applicable.
Appearance	: Follicle, slabs, sheets	Specific gravity	: Not determined.
Color	: Black	Bulk density	: Not established.
Odor	: Characteristic of rubber	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 CHEMICAL PROPERTIES

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	: Strong acids and oxidizing agents.
Hazardous decomposition products	: Carbon dioxide (CO ₂), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.

11. TOXICOLOGICAL INFORMATION

components which make up the compound.

Toxicity overview:

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

CAI-No.	Chemical Name	Effect	Target Organ
1301178-B	Calcium oxide	Irritant	Skin

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		Systemic effects	Eyes, skin, respiratory system.
		Corrosive	Skin.
1314-13-2	refined heavy paraffinic	Irritant	Eyes, skin.
84741-88-4			
1333-86-4	Carbon black	Systemic effects	Eyes, respiratory system.

LCS0 / LD50

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

CAS-NO	CHEMICAL NAME	ROUTE	VALUE	SPECIES
1314-13-2	Zinc Oxide	LC50 Oral LD50	2,800 mg/m ³ 7,950 mg/kg	mouse mouse
1333-86-4	Carbon black	Oral LD50 Dermal LD50	>15,400 mg/m ³ >3 mg/kg	rat rabbit

Carcinogenicity

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
1333-86-4	Carbon black	no	2B	no

IARC Carcinogen Classifications:

- 1 - The component is carcinogenic to humans.
- 2 A - The component is probably carcinogenic to humans.
- 2 B - 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.

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). 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.

12. ECOLOGICAL INFORMATION

Persistence and degradability : Not readily biodegradable.

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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

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/or 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 all applicable federal, state, provincial, and/or local regulations.

14. TRANSPORT INFORMATION

U.S. D.O.T. / CA, T.D.G. Classification (Non-bulk ground) : Not regulated for transportation.
ICAO / IATA : Not regulated for transportation.
IMO / IMDG : Not regulated for transportation.

15. REGULATORY INFORMATION

U.S. 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.
U.S. E.P.A. CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	RQ for Mixture / Product
Ziram	137-86-4	640 LB

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

SARA Title II Section 313 Toxic Chemicals:

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Chemical Name	CAS-NO.	Weight %
ZINC COMPOUNDS	1314-13-2	0.95
ZINC COMPOUNDS	188-23-2	0.23
ZINC COMPOUNDS	137-30-4	0.11

Canadian Regulations:

WHMIS Classification : D1B

WHMIS Ingredient Disclosure List

CAS-No.
1305-78-8
1333-39-4
18219-75-3
7691-88-8
57-11-4
1314-13-2
78-09-4
137-26-8
137-30-4

DSL : Listed

National Inventories:

Australia AICS : Listed.

China IECS : Not determined.

Europe EINECS : Not determined.

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 material or in any process, unless specified in the text.