



Rubber Crumb - M.S.D.S.

Section 1: Product & Company Identification

Product Name: Rubber Crumb
Chemical Family: Recycled tire rubber
Product Use: Various Industrial Processes

Workplace Hazardous Information Systems Data:

Class ID Class: None
Work Place Hazard: Not a Controlled Product

Manufacturer Name: Entech, Inc.
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MSDS Revision Date: March 13, 2009
Prepared By: Entech, Inc.
Preparer's Phone: 269.483.2318

Section 2: Composition/Information on Ingredients

Chemical Name	Concentration	CAS#
Reprocessed rubber		
Naphthenic/Aromatic Extender Oil		64742-02-7
Carbon Black		1333-86-4
Talc		64742-02-7
Zinc oxide		1314-13-2
Sulphur		7704-34-9

Section 3: Hazards Identification

Emergency Overview:

If ignited by excessive heat or open flame, this product will burn causing the release of toxic and irritating smoke. Smoke may contain noxious compounds and acrid compounds of sulphur. During fire conditions, smoke is irritating to the eyes and respiratory tract.

Powder or dust may form explosive concentrations when mixed in sufficient quantities of air.

Routes of Entry:

Skin Contact: Yes
Skin Absorption: No
Eye Contact: No
Inhalation: Yes
Ingestion: No

Potential Health Effects:

Skin:
Eye:
Inhalation:
Ingestion:

Section 4: First Aid Measures

Eye Contact:	Do not rub eyes, which may cause particles to scratch the eye. Immediately flush contaminated eye(s) with lukewarm, gently running water for at least 5-15 minutes while holding the eye lid(s) open. Take care not to rinse contaminated water into non-affected eye. Neutral saline solution may be used for flushing if available. If eye irritation persists, transport victim to medical facility.
Skin Contact:	Wash skin gently with soap and water to remove dust. If irritation occurs and/or persists, seek medical attention.
Inhalation:	Remove to fresh air. Drink water to clear throat. Blow nose to remove dust.
Ingestion:	Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or is convulsing. Since the effect if ingestion of rubber has not been determined, only seek immediate medical help if large quantities have been ingested.
Other First Aid:	If ignited by excessive heat or open flame, this product will burn causing the release of toxic and irritating smoke. Smoke may contain noxious compounds and acrid compounds of sulphur. During fire conditions, smoke is irritating to the eyes and respiratory tract.

Powder or dust may form explosive concentrations when mixed in sufficient quantities of air.

Section 5: Fire Fighting Measures

Conditions Of Flammability:	Will burn when exposed to excessive heat or flame.
Extinguishing Media:	Carbon dioxide, water, foam, dry chemical.
Flashpoint:	Not Applicable
Upper Flammable Limit:	
Lower Flammable Limit:	
Autoignition Temperature:	370-450 deg. C
Protective Equipment:	All extinguishing media permitted, water recommended. Full emergency equipment with self contained breathing apparatus must be worn. During combustion, irritating and/or toxic gases and aerosols from decomposition products may be present. Fight fire from up-wind.
Sensitivity To Impact:	Not sensitive.
Sensitivity To Static Discharge:	Not sensitive.
Hazardous Combustion Products:	Unidentified hydrocarbons in smoke, oxides of sulphur and carbon.
Fire Comment:	

Section 6: Accidental Release Measures

Personnel Precautions:	Use proper personal protective equipment as listed in section 8.
Spill Cleanup Measures:	Release of powdered rubber into the environment may cause particulate to form an explosive mixture in air. If release of ground rubber results in the formation of dust, remove all sources of heat and ignition. Provide immediate and plenty of ventilation. Contain spilled material for disposal or recycling. If sweeping is necessary, use dust suppression such as water. Do not dry sweep dust accumulation or use compressed air for cleanup. Material may be reused in process if clean, otherwise collect in approved containers and dispose according to the requirements in section 13.

Section 7: Handling & Storage

Handling:	When handling product minimize dust formation. Keep away from sources of heat, flame or ignition. Add water to any spilled product before attempting a clean up. Wash hands thoroughly after handling and before eating, drinking, using tobacco products, or using the restroom.
Storage:	Ground all transfer and storage equipment and use only non-sparking tools and equipment. Store in a cool dry place away from sources of heat or ignition.

Section 8: Exposure Controls, Personal Protection – Exposure Guidelines

Engineering Controls:	Use general or local exhaust ventilation to maintain exposure below the exposure limits. (See section 2) If heated during processing, provide adequate non-sparking ventilation to minimize fumes in the workplace.
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Personal Protective Equipment: As supplied, the extender oil is bound in a polymer matrix and exposure to skin would only be trace quantities or less. If prolonged contact is involved, care should be taken to minimize exposure by preventing contact with skin. Wear loose fitting clothing that covers exposed areas. Frequent washing of exposed areas is recommended. Eye protection is required such as safety glasses with side shields. The wearing of contact lenses is not recommended. Footwear as required by worksite rules, but impervious. Have a safety shower and eyewash station readily available in the immediate work area.

Respiratory Protection: Under normal conditions of use, respiratory protection is not necessary. If dusting is an occurrence during processing, then use of a particulate N95 respirator is recommended.

Exposure Limits:

Chemical Name	ACGIH TLV-TWA	OSHA PEL-TWA
Reprocessed rubber	10 mg/m ³ Total dust	15 mg/m ³
Naphthenic/Aromatic Extender Oil	Not applicable	5 mg/m ³ , Mist
Carbon Black	3.5 mg/m	3 3.5 mg/m ³
Talc		
Zinc oxide	10 mg/Cu. Meter	5mg/Cu.Meter total dust
Sulphur	10 mg/Cu.Meter	

Section 9: Physical & Chemical Properties

Physical State: Black powder
Odor And Appearance: Mild rubber
Odor Threshold: Not determined
Boiling Point: Not applicable
Evaporation Rate: Not applicable
Melting Point: Not available
Freezing Point: Not applicable
Density:
Vapor Density: Not applicable
Vapor Pressure: Not applicable
pH: Not applicable
Flash Point: Not Applicable
Volatility (% by volume): Not applicable
Coefficient of Water to Oil distribution: Not applicable

Section 10: Stability & Reactivity

Chemical Stability: Yes
Hazardous Polymerization: Will not occur
Conditions of Chemical Instability: Avoid strong oxidizing agents.
Incompatible Substances: Avoid strong oxidizing agents.
Special Decomposition Products: Carbon monoxide, carbon dioxide, hydrogen, hydrogen sulphide, pentadiene, benzene, xylene, carbon, ash, oxides of sulphur and nitrogen, zinc oxide, and numerous unidentified orfagic compounds.

Section 11: Toxicological Information

LD50 (Oral Rat)	LD50 (Dermal Rabbit)	LC50 (Inhalation Rat)
Reprocessed rubber		
Naphthenic/Aromatic Extender Oil		
Carbon Black		
Talc		
Zinc oxide		
Sulphur		

Effects of Acute Exposure:	<u>Inhalation:</u> Inhalation of fine particles may cause mild irritation of the respiratory tract. Fumes generated during processing may also be mildly irritating to the eyes and respiratory tract. <u>Skin Contact:</u> Not expected to have any acute effects. <u>Eye Contact:</u> Contact with eyes will cause general irritation such as occurs when foreign object enters the eye. Redness, itchiness, and tearing may result. <u>Ingestion:</u> The acute effects of ingestion rubber have not been determined. This product is a mechanical irritant for which no LD50 has been established.
Effects of Chronic Exposure:	Prolonged contact with untreated naphthenic/aromatic oils caused skin cancer in mice when applied over a two year period. Untreated naphthenic/aromatic oils are classified as carcinogenic to humans by IARC. Some countries require the "R45" designation due to the presence of this oil. There is evidence that contact with ground rubber may aggravate pre-existing dermatitis. Some rubbers contain nitrosamines, which have also been shown to be carcinogenic to animals in the laboratory.
General Irritancy of Product:	Notes to Physician: This product is a mechanical irritant and is not expected to have any chronic health effects for a single exposure. Treat exposure by removing source of irritation and treating symptomatically.
Sensitization:	See section 3
Carcinogenicity:	Yes. The extender oil is naphthenic/aromatic based and is listed by IARC as
Reproductive Toxicity:	No
Teratogenicity:	No
Embryotoxicity:	Not Available
Mutagenicity:	No
Synergistic Products:	None reported

Section 12: Ecological Information

Ecotoxicity:	Not Available
Environmental Fate:	Not Available

Section 13: Disposal Considerations

Waste Disposal: Place used and contaminated material and packaging into suitable containers. Review and follow all local, and national regulations before disposal.

Section 14: Transport Information

TDG Classification:	Not regulated.
DOT UN Number:	Not regulated
Shipping Notes:	

Section 15: Regulatory Information

Workplace Hazardous Information Systems Data (WHMIS):

Class ID Class	Work Place Hazard
None	Not a Controlled Product

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Section 16: Disclaimer

This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication. We cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as a guide for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. If further information is required, it can be obtained through the sales office at the address at the top of this data sheet.