

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Form	Substance
Product Name	SpectraRubber Granules
Product Identifier	Recycled rubber truck tyre (SBR)

Relevant identified uses of the substance or mixture and uses advised against

1. Relevant identified uses:

Crumbed rubber is used as ground cover under playground equipment, and as an artificial grass surface infill or in a wet pour mix for running tracks and playgrounds or in landscaping.

2. Uses advised against:

No additional information available

SECTION 2: HAZARDS IDENTIFICATION

1. Overview:

Products have a mild rubber odor and if ignited by excessive heat or open flame will burn. Smoke released will contain noxious and acrid compounds of sulphur. During fire conditions, smoke irritates the eyes and respiratory tract.

SBR powder or dust may form explosive concentrations when mixed with sufficient quantities of oxygen.

2. Potential Health Effects:

Inhalation:	Not a likely route of exposure
Skin contact:	May cause slight irritation.
Eye contact	Can cause mechanical irritation.
Ingestion	Not a likely route of exposure.

PROPERTIES

CHEMICAL NAME	CAS No.	CONCERNTRATION
Natural rubber	9006-04-6	60-100
Mineral oil, petroleum extracts, heavy paraffinic distillate solvent	64742-04-7	
Talc, Containing No Asbestos or Crystalline Silica	14807-96-6	
Zinc oxide	1314-13-2	
Sulfur	7704-34-9	

SECTION 4: FIRST AID MEASURES**First Aid Procedures**

Inhalation:	Relocate to fresh air. Drink water to clear throat. Blow nose to remove dust.
Skin Contact:	Rinse thoroughly with lukewarm, gently flowing water and non-abrasive soap. If irritation occurs and/or persists, seek medical attention.
Eye Contact:	Do not rub eyes as particles may scratch the eye. Immediately rinse open eye with lukewarm, gently running water for at least 5-15 minutes. Use saline solution if available and take care not to contaminate unaffected eye. If eye irritation persists, seek medical attention.
Ingestion:	Only seek immediate medical help if large quantities have been ingested. NEVER give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing.
First Aid Comments:	This product will release toxic and irritating smoke if ignited by excessive heat or open flame. Smoke may contain noxious compounds and acid 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.
Note to Physicians:	This product is a mechanical irritant and is not expected to have any chronic effects for a single exposure. Treat exposure by removing source of irritation and treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties:	Will burn when exposed to excessive heat or flame.
Suitable Extinguishing Media:	Carbon dioxide, foam, sand, water (recommended).
Specific Hazards Arising from the Chemical:	Unidentified hydrocarbons in smoke, oxides of sulphur and carbon.

Protective Equipment and Precautions for Firefighters:

Fight fire from upwind. During combustion, irritating and/or toxic gases and aerosols from decomposition products may be present. Move containers from fire area or cool with water spray, if possible. Firefighters must wear a full-body encapsulating chemical protective suit with positive-pressure self-contained breathing apparatus (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use the Personal Protective Equipment (PPE) recommended in Section 8 of this MSDS.
Environmental Precautions:	Use the PPE recommended in Section 8 of this MSDS.
Methods for Containment and Clean-up:	If release of ground rubber results in the formation of dust, remove all sources of heat and/or ignition. Provide immediate and adequate 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 clean-up. Material may be re-used in process if clean, otherwise collect in approved containers and dispose according to the requirements in Section 13.

SECTION 7: HANDLING AND 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 thoroughly after handling and launder contaminated clothing before re-use.
Storage:	Ground all transfer and storage equipment and use only non-sparking tools and equipment. Store in a cool, dry, well-ventilated area away from ignition sources/sparks.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guideline Comments:****Natural Rubber:**

- ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. 10 mg/m³ (total dust)
- OSHA = Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. TWA = Time-Weighted Average. 15 mg/m³
- (mineral oil, petroleum extracts, heavy paraffinic distillate solvent)
- OSHA = Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. TLV® = Threshold Limit Value. 5 mg/m³ (mist)

Carbon Black:

- ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold
- Limit Value. TWA = Time-Weighted Average. 3.5 mg/m³
- OSHA = Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. TWA = Time-Weighted Average. 3.5 mg/m³

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MATERIAL SAFETY DATA SHEET

Zinc Oxide

- ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. 10 mg/m³
- OSHA = Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. TWA = Time-Weighted Average. 5 mg/m³ (total dust)

Sulphur:

- ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. 10 mg/m³.

Engineering Controls:

- Use general or local exhaust ventilation to maintain exposure below the exposure limits. If heated during processing, provide adequate non-sparking ventilation to minimize fumes in the workplace.

Personal Protective Equipment (PPE)

Eye/Face Protection:

Wear chemical safety glasses with side shields when contact is possible. Contact lenses are not recommended. Ensure an eyewash station and safety shower are available in immediate work area.

Skin Protection:

As supplied, the extender oil is bound in a polymer matrix and exposure to skin should only be trace quantities or less. If prolonged contact is involved, care should be taken to minimize exposure by preventing contact with skin. Impervious footwear is required by work site rules. Frequent washing of exposed areas is recommended. Safety shower is recommended in the workplace area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid	Melting Point	Not available
Appearance	Black/coloured Granules	Freezing Point	Not available
Particle Size	Not available	Relative Density (water = 1)	0.95 - 1.40
Odour	Mild Rubber	Bulk Density	Not available
Odour Threshold	Not available	Solubility in Water	Insoluble
Molecular Formula	Not available	Solubility in Other Liquids	Not available
Molecular Weight	Not available	pH	Not applicable
Boiling Point	Not available	Partition Coefficient, n-Octanol/Water	Not available

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Decomposition Temperature	Not available	Evaporation Rate	Not applicable
Viscosity-Kinematic	Not available	Flash Point	Not applicable
Surface Tension	Not available	Lower Flammable/ Explosive Limit	~ 25%
Vapour Pressure	Not applicable	Upper Flammable/ Explosive Limit	Not applicable
Vapour Pressure at 50 deg C	Not available	Auto-ignition Temperature	370 - 450°C
Saturated Vapour Concentration	Not available	Electrical Conductivity	Not available
Critical Temperature	Not available		
Vapour Density (air = 1)	Not applicable		

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	This product is stable and is not reactive
Conditions to Avoid:	Avoid strong oxidizing agents
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, hydrogen, hydrogen sulphide, pentadiene, benzene, xylene, carbon, ash, oxides of sulphur and nitrogen, zinc oxide, and numerous unidentified organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

General Comments

- This product is a mechanical irritant and is not expected to have any chronic effects for a single exposure.
- ACGIH TLV-TWA 0.0001 mg/m³ (inhalable, skin, sen) DTLVS* The Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) booklet issues by American Conference of Governmental Industrial Hygienists (ACGIH), Cincinnati, OH, 1996 Volume(issue)/page/year: TLV/BEI,2010

Skin Irritation/Corrosion

Not a skin irritant. There is evidence that contact with ground rubber may aggravate pre-existing dermatitis.

Eye Irritation/Corrosion

General irritation occurs when a foreign object contacts with the eye. Redness, itchiness and tearing may result.

Effects of Short-Term (Acute) Exposure**Inhalation**

Based on animal tests. Inhalation of fine particles may cause mild irritation of the respiratory tract. Fumes generated during processing may be mildly irritating to the eyes and respiratory tract.

Ingestion

The acute effects of ingestion of rubber have not been determined.

Effects of Long-Term (Chronic) Exposure

Prolonged contact with untreated naphthenic/aromatic oils caused skin cancer in mice when applied over a two year period.

Carcinogenicity

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. Some rubber contains nitrosamines which have also been shown to be carcinogenic to animals in the laboratory.

Teratogenicity / Embryo toxicity

Does not cause harm to the unborn child. This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause reproductive toxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a reproductive toxin.

SECTION 12: ECOLOGICAL INFORMATION**General Comments**

Environmental fate of this material is not available.

Eco toxicity

The ecological risk associated with the use of ground rubber in playgrounds has been investigated in several studies by evaluating the impact of leachates on aquatic life. In the majority of these studies, zinc was identified as the most likely toxic constituent. Aging of the rubber material and dilution from natural systems in which the species live is likely to prevent toxic effects. Research is ongoing.

SECTION 13: DISPOSAL CONSIDERATIONS

Place used and contaminated material and packaging into suitable containers. Dispose of in accordance with government regulations.

SECTION 14: TRANSPORT INFORMATION

Shipping Information:	Not regulated
Other Transport Information:	Not applicable
Special Shipping:	Not applicable

SECTION 15: REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

SECTION 16: OTHER INFORMATION

Prepared by Seamless Flooring Systems - 15 March 2020

SAFETY

A safety data sheet is not required for this product under Article 21 of REACH. This Product Safety Information Sheet has been created on a voluntary basis.

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Spectra is a brand of
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