Safety Data Sheet

Section 1. Identification

GHS product identifier : Earth Shield® TPE - Rubber (aka TPV or Thermoplastic Vulcanizate)

Other means of identification : Thermoplastic Elastomeric Rubber Waterstop

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

Not available

Supplier's details : J P Specialties, Inc.
25811 Jefferson Avenue
Murrieta, CA 92562
Tel.: 1-800-821-3859
Fax: 1-951-763-7074
Website URL: www.jpspecialties.com

Emergency telephone number (with hours of operation) : 1-951-763-7077
(7am to 3:30pm PST)

Section 2. Hazards Identification

This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

OSHA/HCS status : Classified as combustible dust. While this material is not considered a combustible dust as shipped, it is classified as a hazardous combustible dust by the OSHA Hazard Communication Standard 2012, 29 CFR 1910.1200.

GHS label elements Not classified as hazardous.

Signal word : **Warning!** This product as shipped is not classified as a combustible dust; however, a combustible concentration of dust may occur if fines are suspended in air (e.g. from cutting to sanding the product)

Pictogram : There is no GHS pictogram for combustible dust hazard.

Hazard statements : When handling Earth Shield TPE as supplied, there is very low hazard possibility.

: Rough edges could result in minor cuts to hands. Appropriate gloves should be worn to prevent cuts and/or scrapes.

Section 2. Hazards Identification

Potential Health Effects

Eyes : If dust is generated from cutting, it could scratch or irritate the eyes; if using elevated temperatures, vapors may irritate the eyes.

Ingestion : Dust or debris from cutting may irritate the throat, mouth, or stomach.

Inhalation : Inhalation of fine dust from cutting or sanding, may cause irritation of the respiratory system; inhalation of vapors from use of elevated temperatures may also cause irritation of the respiratory system.

Chronic : Inhalation of fine dust is a potential carcinogen situation from respirable particles of CARBON BLACK.

SIGNAL WORD: WARNING!: Carbon black has been classified by IARC as Group 2B carcinogens, possible human carcinogens, when they are inhaled as dusts. If dusty conditions occur from these products (e.g. during cutting or sanding), AVOID breathing dusts. The permissible exposure limit (PEL) for for carbon black is 3.5 mg/m3.

Disposal : See Section 13.

Hazards not otherwise classified : When cutting or modifying Earth Shield TPE product, other hazards may exist.

Special Hazard Designations

NFPA Hazard ID:	Health:	1	Flammability:	1	Reactivity: 1
HMIS Hazard ID:	Health:	1	Flammability:	1	Reactivity: 1

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Thermoplastic Elastomeric Rubber Waterstop

CAS number/other identifiers

CAS number : Not applicable

Product code : JP436, JP636, JP936, JP320L, JP336L, JP325T, JP621L, JP450T, JPEB375, JP158, JPEB350, JP1225, JPEB375R, JP621L, JP678, JP978, JP211, JP647, JP648, JP948, JP949, JP1149

Ingredient name	%	CAS number	GHS Haz. Codes
AMORPHOUS SILICON DIOXIDE	0 - 4%	112926-00-8	NONE
CARBON BLACK	0 - 6	1333-86-4	NONE
TIN DICHLORIDE	0.14 - 0.45%	7772-99-8	H302, H314(1), H400(M factor 1)
ZINC OXIDE	0 - 0.7%	1314-13-2	H400(M factor 1), H410(M factor 1)

All concentrations are by percent by weight unless material is a gas. Gas concentrations are in percent by volume. Note: The product may contain varying levels of additives such as slip and anti blocking agents, antioxidants, and stabilizers. The substances in the above table are components of one or more, but not all product grades

These components are not considered to be hazardous chemicals in the concentrations used per the OSHA HazCom Standard, 29 CFR 1910.1200. However, dusts containing carbon black are considered potential human carcinogens by IARC listed as Group 2B.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i)

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Do not rub eyes. Check for and remove any contact lenses. If irritation occurs, get medical attention.

Inhalation : In case of adverse exposure to vapors and/or aerosols at elevated temperatures, immediately remove the affected victim from exposure. Administer artificial respiration if breathing stopped. Keep at rest. Note: At ambient/normal handling temperatures, no adverse effects due to inhalation of vapors/dust are expected. However, if cutting or sanding take appropriate action to AVOID breathing dusts. In case of inhalation, move to fresh air. If irritation persists or breathing difficult, get medical attention.

Skin contact : For cuts and scrapes, get medical attention. Wash contaminated skin with soap and water. For hot product: immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

Ingestion : If swallowed, do not induce vomiting. Get medical attention.

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: Use water fog, foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	: Do not use straight streams of water.
Specific hazards arising from the chemical	: Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentration and in the presence of an ignition source is a potential dust explosion hazard.
Hazardous thermal decomposition products	: During fire, smoke, fumes, incomplete combustion products, oxides of carbon, formaldehyde, and flammable hydrocarbons may be formed.
Special protective actions for firefighters	: Assure an extended cooling down period to prevent re-ignition. Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
	: Use water spray to cool fire exposed surfaces and to protect personnel.
Special protective equipment for firefighters	: Firefighters should wear appropriate, standard protective equipment and in enclosed spaces a self-contained breathing apparatus (SCBA) should be used.

Section 6. Accidental release measures

As supplied, the product presents no risk of spill or release.

General Procedures: Dust deposits from cutting or sanding should not be allowed to accumulate on , as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Section 7. Handling and Storage

Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and faces before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store away from incompatible materials (see section 10) and food and drink.

Section 8. Exposure Controls / Personal Protection

Control parameters

Occupational exposure limits

Substance Name	Form	Standard	Limit	Note	Source
CARBON BLACK		TWA	3.5 MG/M3	N/A	OSHA Z1
CARBON BLACK	Inhalable fraction	TWA	3 MG/M3	N/A	ACGIH
TIN DICHLORIDE [as Sn]		TWA	2 MG/M3	N/A	OSHA Z1
TIN DICHLORIDE [as Sn]		TWA	2 MG/M3	N/A	ACGIH
ZINC OXIDE	Fume	TWA	5 MG/M3	N/A	OSHA Z1
ZINC OXIDE	Respirable fraction	TWA	5 MG/M3	N/A	OSHA Z1
ZINC OXIDE	Total dust	TWA	15 MG/M3	N/A	OSHA Z1
ZINC OXIDE	Respirable fraction	STEL	10 MG/M3	N/A	ACGIH
ZINC OXIDE	Respirable fraction	TWA	2 MG/M3	N/A	ACGIH

Note: Limits/standards shown are for guidance only. Follow applicable regulations.

Biological Limits : No biological limits allocated.

Section 8. Exposure Controls / Personal Protection

Appropriate engineering controls : Normal use of this product is not expected to produce dust, however, if cutting or sanding or by other means dust may be generated. Ventilation should be provided so that exposure limits are not exceeded. Processors of this product should assure the adequate ventilation or other controls are used to control exposure.

Environmental exposure controls : Comply with applicable environmental regulations limiting discharge to air, water and soil.

Individual protection measures

Hygiene measures : Do not get in eyes. Keep away from food or drink. Handle in accordance with good industrial hygiene and safety practice. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Eye/face protection : When cutting or processing the product, wear safety glasses with side shields. Safety eyewear should comply with an approved standard and should be used when a risk assessment indicates this is necessary to avoid exposure to dusts or flying debris.

Respiratory protection : Not required under normal handling and processing. Should conditions exist that require respiratory protection, for example while cutting or sanding generates , a NIOSH/MSHA approved respirator should be worn to avoid inhalation of dusts

Skin protection

Hand protection : Wear protective gloves to avoid incidental cuts or scrapes that could occur when handling the edges of the product.

Body protection : None required under normal handling and processing of product.

Other skin protection : None required under normal handling and processing of product.

Section 8. Exposure Controls / Personal Protection

Respiratory protection : Not required under normal handling and processing. Should conditions exist that require respiratory protection, for example while cutting or sanding generates dusts, a NIOSH/MSHA approved respirator should be worn to avoid inhalation of dusts should engineering controls not maintain airborne contaminant concentrations at a level which is adequate to protect the worker health. A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use. Consult the OSHA respiratory protection information located at 29 CFR 1910.134. For example, while cutting or sanding and generation dust is present a NIOSH/MSHA approved respirator should be worn to avoid inhalation of dusts.

Types of respirators to be considered for the material include: Particulate air purifying respirator approved for dust / oil mist is recommended. For high airborne concentrations, use an approved supplied air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Personal protective equipment selections will vary based on potential exposure conditions such as applications, handling practices, concentrations, and ventilation. Information on the selection of protective equipment for use with this material, as provided above is based upon intended, normal usage.

Section 9. Physical and Chemical Properties

Appearance

Physical state	: Solid, black waterstop profile
Color	: Black
Odor	: Rubber like odor.
Odor threshold	: Not available
pH	: Not available
Freezing point	: Not available
Melting point	: 175°C (347°F) - 230°C(446°F)
Decomposition temperature	: Not determined
Boiling point	: Not applicable
Flash point	: Not available
Burning time	: Not available

Section 9. Physical and Chemical Properties

Burning rate	: Not available
Evaporation rate (BuAc = 1)	: Not applicable
Flammability (solid, gas)	: Not available
Flammable limits (Approximate volume % in air)	: LEL: Not determined, UEL: Not determined
Vapor pressure	: N/A
Vapor density (Air = 1)	: N/A
Relative density (at 20 C)	: 0.9 - 1
Log Pow (n-Octanol/Water Partition Coefficient)	: Not available
Solubility	: Not available
Solubility in water	: Negligible
Partition coefficient n-octanol/water	: Not available
Auto-ignition temperature	: Not available
SADT	: Not available
Viscosity	: Not available
Density	: 900kg/m3(7.51 lb/gal, 0.09kg/dm3) - 1000 kg/m3 (8.35 lb/gal. 1 kg/dm3)
DMSO Extract (mineral only), IP-346	: < 3%wt
Hygroscopic	: Yes

Section 10. Stability and Reactivity

Reactivity	: See sub-sections below.
Chemical stability	: The product is stable under normal conditions.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous polymerization reactions will not occur.
Conditions to avoid	: Contact with incompatible material. Avoid elevated temperatures for prolonged periods of time. Elevated temperatures > 260 °C (500 °F).
Incompatible materials	: Strong oxidizers, halogenated compounds, phenolic resins, and acetal resins.
Hazardous decomposition products	: Under normal conditions of storage and use at ambient temperatures, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Information on the likely routes of exposure : Route of entry anticipated: oral, dermal.

Information on toxicological effects

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for material.	Minimally toxic. Based on chemical structure (polymers).
Irritation - No end point data for material.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Acute toxicity: No end point data for material.	Minimally toxic. Based on chemical structure (polymers).
Skin	
Acute toxicity: No end point data for material.	Minimally toxic. Based on chemical structure (polymers).
Skin corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on chemical structure of material (polymers).
Eye	
Serious eye damage/irritation: No end point data for material	May cause mild, short-lasting discomfort to eyes. Based on chemical structure (polymers).
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin sensitization: No end point for material.	Not expected to be a skin sensitizer. Based on chemical structure (polymers).
Aspiration: No end point data for material.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
Get Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on chemical structure (polymers).
Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on chemical structure (polymers).

Section 11. Toxicological Information

Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on chemical structure (polymers).
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single exposure: No end point data for material	Not expected to cause organ damage from single exposure.
Repeated exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on chemical structure (polymers).

OTHER INFORMATION

Dust may be irritating to the eyes and respiratory tract.

Elevated temperature or mechanical action may form vapors, mists, or fumes which may be irritating to the eyes and respiratory tract.

CONTAINS:

Carbon Black: Certain carbon blacks have proved carcinogenic in animals studies. Inhalation animal studies of high concentrations resulted in chronic inflammation, lung fibrosis and lung tumors. Epidemiology studies of workers include findings of bronchitis, pneumonia, emphysema and excess cancer. Substances bound in a polymer or other matrix should present little or no hazard.

Additives that are encapsulated in the polymer. Under the normal conditions for processing and use of this polymer the encapsulated additives are not expected to pose any health hazard. However, grinding of the polymer is not recommended without the use of appropriate measures to control exposure (see Section 8 - Engineering Controls).

Ingredient name	CAS number	List Citation
CARBON BLACK	1333-86-4	5

Regulatory Lists Searched		
1 = NTP CARC	3 = IARC 1	5 = IARC 2B
2 = NTP SUS	4 = IARC 2A	6= OSHA CARC

Section 12. Ecological Information

The information given is based on data available for the material, the components of the material, and similar materials.

Ecotoxicity

This product is not expected to be harmful to aquatic organisms

Persistence and degradability

Product is expected to be persistent.

Bioaccumulative potential

Biodegradation: Material is expected to be persistent.

Mobility in soil

Low solubility, floats, expected to migrate from water to land expected to partition to sediment and waste water solids.

Note: Material contains additives that are encapsulated in the polymer. Under normal conditions of processing and use, the encapsulated additives are expected to have very limited solubility in water and, as a result, are not expected to cause adverse effects in the aquatic environment.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal Considerations

Disposal methods* : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues.

The unused product, in our opinion, is not listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristics Leaching Procedure (TCLP). However, used product may be regulated.

Preferred options for disposal* Preferred options for disposal are recycling, supervised incineration with energy recovery, or appropriate recycling methods in accordance with applicable regulations and material characteristics at time of disposal, and landfill. The high fuel value of this product makes incineration very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable local, state/provincial. and federal regulations.

* Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations and material characteristic at time of disposal.

Section 14. Transport Information

DOT/TDG/IMDG/ IATA	: Not regulated for land, sea, or air transport.		
Environmental hazards	No.	No.	No.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	: Not available		

Section 15. Regulatory Information

U.S. Federal regulations	: When used for its intended purpose, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: Not Listed
Clean Air Act Section 602 Class I Substances	: Not listed
Clean Air Act Section 602 Class II Substances	: Not listed
DEA List I Chemicals (Precursor Chemicals)	: Not listed
DEA List II Chemicals (Essential Chemicals)	: Not listed
TSCA	: This material complies with the national/regional chemical inventory requirements.
EPCRA Section 302	: This material contains no extremely hazardous substances.
CWA/OPA	: This product as shipped is not classified by CWA/OPA as a pollutant.

Section 15. Regulatory Information

Superfund Amendments & Reauthorization Act of 1986 (SARA)

Section 313 toxic release inventory : This product contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

Chemical Name	CAS Number	List Citations
AMORPHOUS SILICON DIOXIDE	112926-00-8	16, 17, 18
CARBON BLACK	1333-86-4	1, 4, 10, 13, 16, 17, 18
MAGNESIUM OXIDE	1309-48-4	1, 4, 13, 16, 17
OCTADECANOIC, ZINC SALT (ZINC STEARATE)	557-05-1	15
ZINC OXIDE	1314-13-2	15

Section 311/312 reportable hazard : Not listed

Regulatory Lists Searched

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5E	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen, REPRO = Reproductive

International regulations

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determoined
Taiwan inventory (CSNN): Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Section 15. Regulatory Information

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

Section 16. Other Information

History

Date of issue mm/dd/yyyy : 11/16/2015

Version : 1

Revised sections : Not applicable

Prepared by : J P Specialties, Inc.

Key to Abbreviations

ACGIH - American Conference of Governmental Industrial Hygienists
AICS - Australian Inventory of Chemical Substances
CSNN - Taiwan Existing (Chemicals and Substances Nomination and Notification
CWA - Clean Water Act
DEA - Drug Enforcement Agency
DOT - Department of Transportation
EPCRA - Environmental Protection Agency (Emergency Planning and Community Right-to-Know)
GHS - Globally Harmonized System
HCS - Hazardous Communication Standard
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IECSC - Inventory of Existing Chemical Substances Produced or Imported in China
IMDG - International Maritime Dangerous Goods
LEL - Lower Exposure Limit
NIOSH - National Institute of Occupational Safety and Health
NTP - National Toxicology Program
NZLOC - New Zealand List of Chemicals
OSHA - Occupational Safety & Health Administration
PEL - Permissable Exposure Limit
PICCS - Philippine Inventory of Chemicals or Chemical Substances
RTK - Right To Know
SARA - Superfund Amendments & Reauthorization Act
STOT - Specific Target Organ Toxicity
TCLP - Toxicity Characteristics Leveling Procedure
TDG - Transport of Dangerous Goods
TLV - Threshold Value
TSCA - Toxic Substances Control Act
UEL - Upper Exposure Limit
UN - United Nations

Section 16. Other Information

Other Data:

This warning is given to comply wit the California and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer.

N/D = Not determined. N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (For information only):
H302: Harmful if swallowed; Acute Tox. Oral, Cat 4
H314(1): Causes severe skin burns and eye damage; Skin Corr/Irritation, Cat 1
H400: Very toxic to aquatic life; Acute Env Tox, Cat 1
H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox. Cat 1