

Date: July 15, 2018

Former date: January 15, 2018

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**

Trade name

TPE 5187

Company product code

- TPE 5187

Reach registration number

-

1.2 Relevant identified uses of the substance or mixture and uses advised against**The uses of the chemical**

Electrical insulation compound.

Classification of economic activities (NACE)**Use categories (UC62)**

55 Others

The chemical can be used by the general public**1.3 Details of the supplier of the safety data sheet****Manufacturer, importer, other undertaking**

1.4 T & T Marketing LLC, an M.Holland Co.

Street address

N/A

Postcode and post office640 N. 13th Street Easton, PA 18042**Telephone number****Day:** 610-252-8404**Evening:** 610-217-1539**Telefax**

N/A

E-mail address

plorigan@ttmarketinginc.com

1.5 Emergency telephone number**Day:** 610-252-8404**Evening:** 610-217-1539**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Natural Thermoplastic Vulcanizate

2.2 Label elements

GHS089

**Signal word:** Warning**Hazard statements**

H332 Harmful if inhaled.

H351 Suspected of causing cancer.

Precautionary statements

P260	Do not breathe dust/fume/vapors.
P314	Get medical advice/attention if you feel unwell.
P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local regulations.

2.3 Other hazards

Dust may cause irritation of the eye and skin. Fumes from heating may irritate the respiratory system.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous ingredients**

CAS/EC number and the registration number	Name of the ingredient	Concentration Wt %	Classification
CAS 25038-36-2	EPDM	10-80	
Proprietary	Bromine Flame Retardant	10-70	
CAS 1309-64-4	Antimony Trioxide	5-50	
CAS 25085-53-4	Polypropylene	5-40	
Proprietary	Proprietary Stabilizers	0-5	

List of hazard phrases and R-phrases in section 16.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

General: In case of accident or if you feel unwell, seek medical advice immediately (show this safety data sheet where possible).

EYES: Immediately flush eyes with plenty of water for two to three minutes. Remove any contact lenses and continue flushing for 15 minutes.

SKIN: If molten material contacts the skin, immediately flush with large amounts of water to cool the affected tissue and polymer. Do not attempt to peel polymer from skin.

INGESTION: Adverse health effects due to ingestion are not anticipated. Seek medical attention if discomfort occurs.

INHALATION: If symptoms are experienced, move victims to fresh air. Seek medical attention if discomfort occurs.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: Avoid prolonged exposure to dust.

Skin contact: Prolonged exposure may cause slight irritation. Rubbing may cause mechanical irritation. The product is not likely to be hazardous by skin contact but cleansing the skin after use is advisable.

Eye contact: Dust may mechanically irritate eyes.

Ingestion: Symptoms or effects not known.

4.3 Indication of any immediate medical attention and special treatment needed

No special instructions. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media**

Carbon Dioxide, foam, fog, sprays and dry chemical water.

5.2 Special hazards arising from the substance or mixture

Smoke, Fume, Sulfur Oxides, Incomplete combustion products, Oxides of carbon, Nitrogen Oxides, formaldehyde, Flammable hydrocarbons, Hydrogen Halide, Antimony halides

5.3 Advice for firefighters

Wear self-contained breathing apparatus. Assure an extended cooling period to prevent re-ignition. Evacuate area. Prevent runoff from fire control from entering streams sewers, or drinking water supply.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Use appropriate personal protection, see section 8.2. Ensure adequate ventilation. Remove all ignition sources. Keep unauthorized persons away from danger zone.

6.2 Environmental precautions

Prevent entry into sewers, soil and waterways. If the product pollutes lakes, watercourses or drainage systems, inform the local authorities.

6.3 Methods and material for containment and cleaning up

Land Spill: Collect by vacuuming or sweeping into suitable containers for reuse or dispose of in accordance with local regulations.

Water spill: Stop leak if you can without due risk. Confine the spill immediately with booms. Skim from surface.

6.4 Reference to other sections

Safe handling: see section 7.

Personal protection equipment: see section 8.2.

Disposal: see section 13.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling**

Keep material off walking surfaces, it may create a slipping hazard. Polymer dust may form explosive mixture with air. Avoid accumulation of dust in enclosed space. Use in well-ventilated area. Ground and bond equipment to prevent electrostatic charge when transferring product. Control spilled material to prevent runoff to the sewers and the environment.

Avoid elevated temperatures for long periods of time. Avoid vapors from heated materials to prevent exposure to potentially toxic fumes. DO NOT store or use near open flame or other sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities

Keep container dry. Store away from excessive heat and away from strong oxidizing agents. Keep container closed to prevent contamination. Conditions such as humidity, sunlight, and temperature have an influence on the way this product behaves during storage. Special attention should be paid to avoid inappropriate stacking of palletized bags or other packaging units. Polymer products may be dimensionally unstable under certain conditions.

7.3 Specific end use(s)

None reported.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters****Occupational exposure limit values**

USA :	Zinc compounds	5.0 mg/m ³ (OSHA)
	Antimony compounds	0.05 mg/m ³ (OSHA)

DNEL

Chemical safety assessment has not been performed.

PNEC

Chemical safety assessment has not been performed.

8.2 Exposure controls**Appropriate engineering controls**

If dust is generated, provide local exhaust ventilation to control airborne levels below the ACGIH TLV-TWA exposure limit for Particulates Not Otherwise Classified of 10 mg/m³ for inhalable particles and 3 mg/m³ of respirable. Adequate ventilation should be provided so that exposure limits are not exceeded.

Eye/face protection

Wear safety glasses with side shields or goggles when handling this material.

Skin protection

To prevent any contact, wear impervious protective clothing such as neoprene or butyl rubber gloves, apron, boots or whole bodysuit as appropriate, when handling dry material. Use thermal resistant gloves when handling molten material. Refer to glove manufacturer's data for proper glove selection.

Thermal hazards

Molten material may cause thermal burns and may release harmful gases.

Environmental exposure controls

Prevent entry into environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Appearance	solid pellets
Odor	Slight odor
Odor threshold	unknown
pH	not applicable
Melting point/freezing point	347 to 446F
Initial boiling point and boiling range	Not applicable
Flash point	not applicable
Evaporation rate	not applicable
Flammability (solid, gas)	Doesn't ignite easily
Upper/lower flammability or explosive limits	unknown
Vapour pressure	not applicable
Vapour density	not applicable
Relative density	unknown
Solubility(ies)	Negligible
Partition coefficient: n-octanol/water	not applicable
Auto-ignition temperature	not applicable
Decomposition temperature	Unknown
Viscosity	not applicable
Explosive properties	not explosive
Oxidizing properties	Avoid strong oxidizers

9.2 Other information

Specific gravity: 1.2

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity**
Not reactive under normal use and storage conditions. Stable in normal temperatures and air pressure. Hazardous polymerization does not occur.
- 10.2 Chemical stability**
Chemically stable under normal storage conditions.
- 10.3 Possibility of hazardous reactions**
No hazardous reactions known under normal use and storage conditions.
- 10.4 Conditions to avoid**
Keep away from intense heat and strong oxidizers.
- 10.5 Incompatible materials**
No incompatible materials known.
- 10.6 Hazardous decomposition products**
Hydrogen Bromide, Bromine, Carbon dioxide, Carbon Monoxide

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Not fully investigated but not expected.

Skin corrosion/irritation

Molten material will produce thermal burns.

Serious eye damage/irritation

Low Hazard for usual industrial handling.

Respiratory or skin sensitization

The product is not classified as a skin or respiratory sensitizer.

Germ cell mutagenicity

The product is not classified as a mutagen.

Carcinogenicity

From data comparisons to similar flame retardants, the Environmental Protection Agency has concluded that the bromine flame retardant used in this compound may cause cancer as a result of significant chronic dermal and inhalation exposures to workers. However, the flame retardant contained in this product is completely encapsulated in thermoplastics and as such, should not present a health hazard.

Reproductive toxicity

The product is not classified as a reproductive toxicant.

STOT-single exposure

The product is not classified as toxic to specific target organs through single exposure. Hot fumes from working may irritate respiratory system.

STOT-repeated exposure

The product may cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

The product is not classified as hazardous with aspiration.

Other information

There are no further data available on the product. Repeated or prolonged exposure may cause irritation on the skin.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1 Toxicity**
Based on comparisons to other flame retardants, the Environmental Protection Agency has concluded that the flame retardant in this product may be toxic to aquatic organisms. However, the flame retardant contained in this product is completely encapsulated in thermoplastics and as such, has limited bio-availability.
- 12.2 Persistence and degradability**
No data.
- 12.3 Bioaccumulative potential**
No data.
- 12.4 Mobility in soil**
Insoluble in water.
- 12.5 Results of PBT and vPvB assessment**
Chemical safety assessment has not been performed, assessment results for components not available.
- 12.6 Other adverse effects**
Not reported.

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods**
Dispose of waste at an appropriate waste disposal facility according to applicable laws and regulations.

SECTION 14: TRANSPORT INFORMATION

- 14.1 UN number**
This product is not classified for transportation.
- 14.2 UN proper shipping name**
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- 14.3 Transport hazard class(es)**
-Not regulated
- 14.4 Packing group**
- N/S
- 14.5 Environmental hazards**
Toxic to aquatic life with long lasting effects.
- 14.6 Special precautions for user**
No special precautions.
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
Not applicable.

SECTION 15: REGULATORY INFORMATION

- 15.1 TOXIC SUBSTANCE CONTROL ACT:** All the components of this product are on the TSCA inventory.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:

SECTIONS 311 & 312: This product contains one or more hazardous chemicals (as defined in 40 CFR 370.2) at levels which could require reporting under sections 311 & 312.

SECTION 313: This product contains Antimony compounds, and Zinc compounds which may be present at levels that could require reporting or customer notification under Section 313 and 40 CFR part 372.

OSHA HAZARD COMMUNICATION: This product contains sufficient quantities of ingredients to possibly produce a health hazard in normal use or foreseeable misuse and would thus be subject to the requirements of OSHA, 29 CFR 1910.1200, hazard communication.

STATE REGULATORY INFORMATION: For details on your specific state regulatory requirements, you should contact the appropriate agency in your state.

- 15.2 Chemical safety assessment**
Chemical safety assessment has not been performed.

SECTION 16: OTHER INFORMATION

- NFPA CODES:

FIRE: 1 HEALTH: 1 REACTIVITY: 0 SPECIAL: -

Restriction of Hazardous Substances Directive EU 2015 / 863 (RoHS 3)

TPE 5187 complies with "Restriction of Hazardous Substances" Directive EU 2015 / 863 (RoHS 3), commonly known as RoHS 3 without exemption. It does not contain any of the following substances:

1. Lead
2. Mercury
3. Cadmium
4. Chromium
5. Polybrominated biphenyls (PBB)
6. Polybrominated diphenyl ethers (PBDE) including decabromodiphenyl ether
7. Bis (2-ethylhexyl) phthalate (DEHP)
8. Butyl benzyl phthalate (BBP)
9. Dibutyl phthalate (DBP)
10. Diisobutyl phthalate (DIBP)

Registration, Evaluation and Authorization of Chemicals (REACH)

This product complies with the current SVHC list updated June 2018.

References

Decree of Ministry of social affairs and health about concentrations known to be adverse 268/2014 (STM: HTP values 2014)
International Chemical Safety Card for lead, Finnish version (ICSC: 0052, 10.8.2002)
MSDSs for ingredients and information about concentrations of ingredients from the manufacturer

Procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Environmental hazards: Calculation method.
Reproductive toxicity and Specific target organ toxicity - Repeated exposure: Specific concentration limits for lead compounds (Index number 082-001-00-6)

Training appropriate for workers

Read the instructions in this SDS.

Manufacturer

T & T Marketing, LLC an M.Holland Co.
400 Skokie Blvd, Suite 600
Northbrook IL 60062