



Safety Data Sheet

TotalFlash® TPO

Section 1 Chemical Product and Company Identification

Product/ Chemical Name: Thermoplastic Olefin (TPO)
Chemical Formula: Polymer Preparation Mixture
Other Designations:

Manufacturer: Mortar Net Solutions™
6575 Daniel Burnham Drive Suite G
Portage, Indiana 46368
(800) 664-6638
(219) 787-5088
www.mortarnet.com

*******EMERGENCY OVERVIEW*******

Emergency Telephone: 1-336-786-2127

Do not allow material to enter streams or waterways per 40 CFR 122.26, "Significant Material". Cover any exposed body areas where skin contact with molten material is possible.

Section 2 Hazard(s) Identification

Physical Hazards Not classified
Health Hazards Not classified
Environmental Hazards Not classified
OSHA Defined Hazards Combustible dust

Label Elements

Hazard Symbol None
Signal Word Warning
Hazard Statement If small particles are generated during further processing, handling or by other means, this may form combustible dust concentrations in air.

Precautionary Statement

Prevention Keep away from heat/ sparks/ open flames/ hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Prevent dust accumulation to minimize explosion hazard. Observe good industrial hygiene practices.

Response Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.



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Hazard(s) Not Otherwise Classified (HNOC) None known

Supplemental Information: No ingredient(s) of unknown acute toxicity is intentionally used in this product.

Section 3 Composition/ Information on Ingredients

Reportable Hazardous Substances: No Reportable Hazardous Substances*

Base Component(s) of Mixture

Table with 4 columns: Chemical Name, Common Name, CAS Number, %

* 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 and hence require reporting in this section.

**Designates that a specific chemical identity and or percentage of composition has been withheld as a trade secret.

Section 4 First Aid Measures

- Inhalation, Skin Contact, Eye Contact, Ingestion, Most Important Symptoms/ Effects, Acute and Delayed, Indication of Immediate Medical Attention and Special Treatment Needed, General Information



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Section 5 Fire-Fighting Measures

Suitable Extinguishing Media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂). Apply extinguishing media carefully to avoid creating airborne dust.

Unsuitable Extinguishing Media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific Hazards Arising from the Chemical

Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.

Special Protective Equipment and Precaution for Firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-Fighting Equipment/ Instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific Methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General Fire Hazards

May form combustible dust concentrations in air.

Section 6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Use only non-sparking tools. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of SDS.

Methods and Materials for Containment and Cleaning Up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. For waste disposal, see section 13 of SDS

Environmental Precautions

Avoid discharge into drains, water sources, or onto the ground.



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Section 7 Handling and Storage

Precautions for Safe Handling

Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to friction or transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces.– No smoking. Explosion-proof general and local exhaust ventilation. Do not breathe dust. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of SDS).

Section 8 Exposure Controls/ Personal Protection

Occupational Exposure Limits U.S. OSHA (29 CFR 1910.1000) Components

Table with 4 columns: Components, Type, Value, Form. Row 1: Nothing to report

U.S. ACGIH Threshold Limit Values

Table with 4 columns: Components, Type, Value, Form. Row 1: Nothing to Report

Nothing to Report

U.S. NIOSH: Pocket Guide to Chemical Hazards

Table with 4 columns: Components, Type, Value, Form. Row 1: Nothing to report

Nothing to report

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Exposure Guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Appropriate Engineering Controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.



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Individual Protection Measures, Such as Personal Protective Equipment

Eye/Face Protection	Wear Safety glasses with side shields (or goggles).
Skin Protection	
Hand Protection	For prolonged or repeated skin contact use suitable protective gloves.
Other	Wear suitable protective clothing.
Respiratory Protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal Hazards	Wear appropriate thermal protective clothing, when necessary.
General Hygiene Considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9 Physical and Chemical Properties

Appearance

Physical State	Solid
Form	Solid sheets, rolls
Color	Black

Odor	Odorless; mild odor
Odor Threshold	Not available
Ph.	Not available
Melting Point/ Freezing Point	125-140°C (255-280°F)
Initial Boiling Point and Boiling Range	Not available
Flash Point	above 290°C (555°F) decomposition occurs and flash of fumes may occur.

Evaporation Rate	Not available
Flammability (Solid, Gas)	Not available

Upper/Lower Flammability or Explosive Limits

Flammability Limit- Lower (%)	Not available
Flammability Limit- Upper (%)	Not available
Explosive Limit- Lower (%)	Not available
Explosive Limit- Upper (%)	Not available



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Vapor Pressure	Negligible
Vapor Density	Not available
Relative Density	0.92 – 1.8 g/cm ³
Solubility(ies)	

Solubility (water)	Negligible
Partition Coefficient (N-Octanol/Water)	Not available
Auto-Ignition Temperature	>320°C(>610°F)
Decomposition Temperature	>290°C(>555°F)
Viscosity	Not available

Other Information

Explosive Properties	Not explosive
Oxidizing Properties	Not oxidizing

Section 10 Stability and Reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage, and transport.
Chemical Stability	Material is stable under normal conditions.
Possibility of Hazardous Reactions Conditions to avoid	Keep away from heat, sparks and open flame; minimize dust generation and accumulation. Contact with incompatible materials.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition	No hazardous decomposition products are known.

Section 11 Toxicological Information

Product Information on Likely Routes of Exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin	
Contact Eye	Direct contact with eyes may cause temporary irritation.
Contact	No adverse effects due to skin contact are expected.
Ingestion	Expected to be a low ingestion hazard.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics	Dusts may irritate the respiratory tract, skin and eyes.
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Information on Toxicological Effects Acute

Toxicity Components

Table with 3 columns: Components, Species, Test Results. Rows include: Not Classified, Skin Corrosion/Irritation, Serious Eye Damage Irritation, Respiratory or Skin Sensitization (Respiratory, Skin), Germ Cell Mutagenicity, Carcinogenicity.

IARC Monographs. Overall Evaluation of Carcinogenicity

1- propene, polymer with ethane (90109-79-1) 3 Not classifiable as to carcinogenicity to humans

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed

Table with 2 columns: Components, Test Results. Rows include: Reproductive Toxicity, Specific Target Organ Toxicity-Exposure, Specific Target Organ Toxicity-Exposure, Aspiration Hazard.

Section 12 Ecological Information

Ecotoxicity This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Table with 3 columns: Components, Species, Test Results. Rows include: Nothing to report, Persistence and Degradability, Bioaccumulative Potential, Mobility in Soil, Other Adverse Effects.



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Section 13 Disposal Considerations

Disposal Instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local Disposal Regulations	Dispose in accordance with all applicable regulations.
Hazardous Waste Code	This waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste From Residues/ Unused Products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated Packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14 Transportation Information

DOT	Not regulated as dangerous goods
IATA	Not regulated as dangerous goods
IMDG	Not regulated as dangerous goods
Transport in Bulk	Not applicable
According to Annex II of MARPOL 73/78 and IBC Code	

Section 15 Regulatory Information

US Federal Regulations

OSHA	When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.
TSCA	Listed on the United States TSCA (Toxic Substances Control Act) inventory.
CERCLA	This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.
EPCRA	This material contains no extremely hazardous substances.
SARA Section	Acute Health Hazard: No
311/312 Hazard	Chronic Health Hazard: No
Classes	Fire Hazard: No Sudden Release of Pressure Hazard: No Reactive Hazard: No
SARA Section	This material contains no chemicals subject to the supplier notification requirements of SARA 313.
313 Toxic	Toxic Release Program



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Release Inventory

**Conflict Minerals
(Dodd-Frank Wall
Street Reform and
Consumer Protection
Act, 2010)**

Conflict minerals, which include columbite-tantalite (coltan) [source for tantalum], cassiterite [source for tin], wolframite [source for tungsten], gold ore, or their derivatives, are not intentionally used in the manufacture of or formulation of this product.

**Clean Water Act
(CWA/OPA)**

Plastic pellets are defined by the US EPA under the Clean Water Act (40CFR122.26) as a “significant material” which requires any industrial plant that may expose pellets to storm water to secure a storm water permit. Violations of the rule carry the same penalties as other Clean Water Act violations. Pellets found in storm water runoff are subject to EPA regulations with the potential for substantial fines and penalties.

**Clean Air Act (CAA) Section 112
Hazardous Air Pollutants (HAPs)**

Not regulated

Safe Drinking Water Act (SDWA)

Not regulated

**CPSIA (Consumer Product Safety
Improvement Act, 2008)**

The following substances, lead [CAS# 7439-92-1] at levels greater than 100ppm (0.01%) and phthalates at levels greater than 1000 ppm (0.1%), are not intentionally used in the manufacture of or formulation of this product. The Toy Safety Standard, ASTM F 963-07, which was made a mandatory CPSC standard by the CPSIA, also states migration limits for seven heavy metals that may be in toy materials. These metals and their respective migration limits are: Antimony (Sb) [CSA# 7440-36-0] <60mg/kg, Arsenic (As) [CSA# 7440-38-2] <25mg/kg, Barium (Ba) [CSA#7440-39-3] <1000mg/kg, Cadmium (Cd) [CSA# 7440-43-9] <75mg/kg, Chromium (Cr) [CSA# 7440-47-3] <60mg/kg, Mercury (Hg) [CSA# 7439-97-6] <60mg/kg, and Selenium (Se) [CSA# 7782-49-2] <60mg/kg. These heavy metals are not intentionally used in the manufacture of or formulation of this product.

Latex

“Natural rubber latex”, “dry natural rubber”, “synthetic latex”, or rubber that contains natural rubber” are not used in the manufacture of or the formulation of this product.

Ozone-Depleting Substances

Class I and Class II ODSs listed in the U.S. Clean Air Act and U.S. EPA regulation 40 CFR Part 82: “Protection of Stratospheric Ozone” are not used in the manufacture of or formulation of this product.

ODSs listed in “The Montreal Protocol on Substances that Deplete the Ozone Layer” (2000) are not used in the manufacture of or formulation of this product.

ODSs listed in Regulation (EC) No 1005/2009 “Substances that Deplete the Ozone Layer” are not used in the manufacture of or formulation of this product.



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U.S. State Regulations

California	Not listed
Massachusetts	Not regulated
New Jersey	Not listed
Pennsylvania	Not listed
Rhode Island	Not regulated

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) Substances and chemicals which are known to the State of California to cause cancer and/or reproductive toxicity under California Proposition 65 are not intentionally added in the manufacture of or formulation of this product.

CONEG (Coalition of Northern Governors) The following substances, cadmium [CSA# 7440-43-9], hexavalent chromium [CAS# 1333-82-0], lead [CAS# 7439-92-1], and mercury [CAS# 7439-97-6], are not intentionally used in the manufacture of or formulation of this product exceeding the regulated levels <100 ppm (<0.01%) set forth by the Toxics in Packaging Clearinghouse (TPCH).

International Regulations

REACH (Regulation (EC) No 1907/2006) Substances and chemicals sold into Europe, or produced in Europe, individually or as part of preparations will be regulated according to the Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) legislation (please visit http://ec.europa.eu/enterprise/reach/indexen.htm for further information). We sell thermoplastic compound preparations into the European market, or produced in Europe, and as such we confirm that all substances of this preparation are compliant with the pre-registration requirements of REACH, and that we have the intentions to proceed with the registration of these substances, or to procure substances only from suppliers from which confirmation has been received that the suppliers are aware of their REACH requirements, that they have preregistered and/or will timely register their substances.

Substances of Very High Concern (SVHC): This product does not contain any of the candidate chemicals proposed to be Substances of Very High Concern above the 1,000 ppm (0.1%) threshold as stated in REACH (Article 57, Regulation No 1907/2006) determined either through (i) non-use of the substance, (ii) mass balance calculation, or (iii) specific testing.

RoHS 2 (Directive 2011/65/EU) and ELV (End-of Life Vehicles, Directive 200/53/EC) The following chemicals and substances are not intentionally used in the manufacture of or formulation of this product exceeding the regulated levels listed below as set forth in RoHS 2, "restriction of the use of certain hazardous substances in electrical and electronic equipment", and determined either through (i) non-use of the substance, (ii) mass balance calculation, or (iii) specific testing.

cadmium hexavalent	100ppm (0.01%) [CAS# 7440-43-9]
chromium	1000ppm (0.1%) [CAS# 1333-82-0]
lead	1000ppm (0.1%) [CAS# 7439-92-1]
mercury	1000ppm (0.1%) [CAS# 7439-97-6]
polybrominated biphenyls (PBB)	1000ppm (0.1%) [CAS# 59536-65-1]

polybrominated diphenyl enters (PBDE) 1000ppm (0.1%) *



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*PBDE includes the following ethers; bromodiphenyl ether [CAS# 101-53-3], dibromodiphenyl ether [CAS# 205-47-7], tribromodiphenyl ether [CAS# 40088-47-9], pentabromodiphenyl [CAS# 32534-81-9], hexabromodiphenyl ether [CAS# 36483-60-0], heptabromodiphenyl ether [CAS# 68928-80-3], octabromodiphenyl ether [CAS# 32536-52-0], nonabromodiphenyl ether [CAS# 63936-56-1], decabromodiphenyl ether [CAS# 1163-19-5],

Packaging and
Packaging Waste-EU
Directive 94/62/EC (as
amended)

Cadmium, chromium (VI), lead and mercury are not intentionally used in the manufacture of or the formulation of this product. This product meets the year 2001 requirements of less than 100 ppm (0.01%) for total incidental cadmium, chromium (VI), lead, and mercury. In addition, this product has the potential to be recycled according to these requirements.

Section 16 Other Information

Prepared by Revision Notes Further Information

Quality Departments
Any questions call 336-786-2127
This Safety Data Sheet conforms to regulation 1907/2006/EC (REACH). This product has been classified in accordance with European CLP Regulations (1272/2008EC) and the U.S. Hazard Communication Standard (29 CFR 1910.1200).

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Process, and Handling of Combustible Particulate Solids, for safe handling.

HMIS® Rating

Health: 0 – Minimal Hazard – No significant risk to health
Flammability: 1 – Slight Hazard
Physical hazard: 0 – Minimal Hazard
Personal protection: X

NFPA Rating

Health: 0 – Exposure could cause irritation but only minor residual injury even if no treatment is given.
Flammability: 1 – Must be preheated before ignition can occur.
Instability: 0 – Normally stable, even under fire exposure conditions, and are not reactive with water.

Disclaimer

UPC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information given is based on data available for the material, the components of the material, and similar materials.