



SAFETY DATA SHEET

TUFF XM SHEET

1. Identification

Product identifier used on the label:	TUFF XM Sheet
Other means of identification:	Thermoplastic Polyolefin (TPO)
Synonyms:	Not applicable
Recommended use of the product and restrictions on use:	Recreational, Agricultural, Marine and Heavy Transportation Do not use without applicable controls in place
Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:	Alpha Systems LLC 5120 Beck Drive Elkhart, IN 46516 (574)295-5206 www.alphallc.us
Emergency phone number:	CHEMTREC (800)424-9300; CHEMTREC CONTRACT #1034

2. Hazard(s) identification

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on the existing health data for individual components which comprise the mixture.

i. The ingredients in this product are bound in a thermoplastic resin matrix. In accordance with GHS for the classification of the product, the hazard potential may be assessed with respect to the physic-chemical form and/or bioavailability of the individual components in the thermoplastic resin. ii. Where GHS classifications are shown below, these are based on individual components in the thermoplastic resin matrix. Under typical use conditions for the product, these hazardous components are unlikely to contribute to the workplace exposure. Please read the entire safety data sheet and/or consult an EHS professional for a complete understanding.

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS classification:	None
Signal word:	None
Hazard statements:	None
Precautionary statements:	This product contains no substances which, at their given concentration, are considered to be hazardous to health.
Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response:	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Storage:	No information available
Disposal:	Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

Hazards not otherwise classified:	COMBUSTIBLE DUST: If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form. Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. In the event that combustible dust is generated, the hazard is posed only by the size of the particle not its chemical content because all monomers, additives and pigment are totally encapsulated within the resin and cannot be released in pure form.
Additional Information:	Can burn in a fire creating dense, toxic smoke. Molten plastic can cause severe thermal burns. Fumes produced during melt processing may cause eye, skin and respiratory tract irritation. Severe over-exposure may result in nausea, headache, chills and fever. See below for additional effects.

3. Composition/ information on ingredients

Chemical component:	Common name and synonyms	CAS Number	Concentration (%)
Polypropylene Copolymer	Not applicable	9010-79-1	95-100%

This product consists primarily of high molecular weight polymers which are not expected to be hazardous. The ingredients in this product are present within the polymer matrix and are not expected to be hazardous.

4. First-aid measures

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation:	Remove individual to fresh air after an airborne exposure if any symptoms develop, as a precautionary measure.
Eyes:	If there is contact to the eyes with molten material, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing and seek immediate medical attention. If fines enter the eye, rinse with water for 15 minutes and seek immediate medical attention if irritation develops.
Skin Contact:	Wash with soap and water. If skin has contact with molten material, place affected area under cold running water.
Ingestion:	No hazard in normal industrial use.

Most important symptoms/effects, acute and delayed: No data available

Indication of immediate medical attention and special treatment needed, if necessary: Gasses and fumes during thermal processing or the decomposition of this material may irritate eyes, skin or respiratory tract.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:	Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media:	Do not use a solid water stream as it may scatter and spread the fire
Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):	Irritating and toxic gasses and aerosols may be generated by thermal decomposition. Hazardous combustion products include: carbon dioxides, hydrocarbons and nitrogen oxides.
Special protective equipment and precautions for fire-fighters:	Use methods appropriate for surrounding materials. Firefighters should be equipped with self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Processing dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive cloud if dispersed.
Methods and materials for containment and cleaning up:	Avoid cleaning dust surfaces with compressed air. Collect and discard in regular trash.

7. Handling and storage

Precautions for safe handling:	Electrostatic charge may accumulate and create a possible hazardous condition when handling this material. To minimize this hazard, bonding and grounding of equipment may be necessary.
Conditions for safe storage, including any incompatibilities:	
Conditions for safe storage:	Store locked up.
Materials to avoid/chemical incompatibilities:	Protect against flame and intense heat.

8. Exposure controls/personal protection

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available:

Exposure Limits				
Chemical Name	US OSHA PEL (8Hr)	ACGIH	Canada - (8Hr.)	Mexico OEL Data
Nuisance Dust				
Total Dust	15 mg/m ³ TWA	10 mg/m ³		
Respirable Dust	5 mg/m ³ TWA	3 mg/m ³		
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Appropriate engineering controls: No engineering controls are likely to be required to maintain operator

comfort under normal conditions of use.

Individual protection measures, such as personal protective equipment:

Respiratory Protection:	Effective Dust Mask
Eye Protection:	Safety glasses with side shields are recommended
Skin Protection:	Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Other protective equipment:	Gloves may be required when processing sheet due to sharp edges and when plastic is in the molten state.
General hygiene conditions:	Wash hands thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection.

9. Physical and chemical properties

Appearance (physical state, color, etc.):

Appearance (physical state):	Solid Polypropylene Sheet
Color:	No data available
Odor:	None
Odor threshold:	No data available
pH:	No data available
Melting point:	122-284 F (50-140 C)
Initial boiling point and boiling range:	No data available
Flash point:	No data available
Evaporation Rate:	Not determined
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	
Upper flammability or explosive limits:	No data available
Lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	1
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	> 572 F (300 C)
Viscosity:	No data available

10. Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	None known
Conditions to avoid (e.g., static	None known.

discharge, shock, or vibration):

Incompatible materials: None Known

Hazardous decomposition products: Irritating or toxic gasses may occur by fire

11. Toxicological information

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): No data available

Symptoms related to the physical, chemical and toxicological characteristics: See data in this section

Delayed and immediate effects and also chronic effects from short- and long-term exposure:

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation: No data available

Inhalation Toxicity: No data available

Skin Contact: No information regarding skin irritation.

Skin Absorption: No data available

Eye Contact: No information regarding eye irritation.

Ingestion Irritation: No data available

Ingestion Toxicity: No data available

Long-Term (Chronic) Health Effects:

Carcinogenicity: No data available

Reproductive and Developmental Toxicity: No data available to indicate product or any components present at greater than 0.1% may cause birth defects.

Mutagenicity: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.

Numerical measures of toxicity (such as acute toxicity estimates).

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation:
No data available			

Is the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

Chemical name	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen
No data available			

12. Ecological information

Ecotoxicity (aquatic and terrestrial, where available): No data available

Ecotoxicity Data:

Chemical component	CAS #	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
No data available				

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects (such as hazardous to the ozone layer): No data available

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:

Waste treatment methods: Dispose of contents and container in accordance with local/regional/national/international regulations. Recycle if possible.

14. Transport information

International carriage of dangerous goods by road (DOT), rail or inland waterways:

UN number: NA
UN proper shipping name: DOT & IATA: NOT RESTRICTED
Transport hazard class(es): NA
Packing group, if applicable: NA

International carriage of dangerous goods by sea (IMDG/IMO):

UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): NA
Packing group, if applicable: NA

International carriage of dangerous goods by air (IATA):

UN number: Not applicable
UN proper shipping name: No data available
Transport hazard class(es): NA
Packing group, if applicable: NA

Environmental hazards (e.g., Marine pollutant (Yes/No)): No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): No data available

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside No data available

their premises:

15. Regulatory information

Safety, health and environmental regulations specific for the product in question:

International Inventories:

TSCA (USA)	All Listed on TSCA
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DSL (Canada)	All Listed on DSL
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Chemical component	CAS #	EINECS (Europe)
All Listed		

Restriction of Hazardous Substances Directive:

Chemical component	CAS #
No known ROHS substances contained in this product	

REACH - Substances of Very High Concern (Based on List dated January 12, 2017):

Chemical component	CAS #
No known SVHC substances contained in this product	

Regulated components:

Chemical component	CAS #	CERCLA	Canada- WHMIS Classification	California Prop 65	SARA EHS	SARA 313
1,4-Dioxane	123-91-1	No	No	Yes	No	No
Ethylene Oxide	75-21-8	No	No	Yes	No	No

SARA Title III Section 311/312 Category Hazards:

Immediate (acute)	Delayed (chronic)	Fire Hazard	Pressure Release	Reactive
No	No	No	No	No

16. Other information, including date of preparation or last revision

Revision Date: March 07, 2019

Revision Number: NEW

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. Alpha Systems LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Alpha Systems LLC assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

