

MATERIAL SAFETY DATA SHEET



Issue Date: 2009.09.01

Print Date: 07 Dec 2011

Terratech encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. Identification of Substance/Preparation and Company

Product name : T-PRO® 400HT
Main Use : Raw material for industrial use
Company : Terratech, Inc.
 3945 E. Vernon St.
 Long Beach, CA 90815
 USA
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2. Composition Information

Component	CAS#	Amount
Water	7732-18-5	>=40.0 - <=55.0%
Styrene-butadiene based polymer	Trade secret	>=45.0 - <=55.0%

3. Hazards identification

Emergency Overview

Color : White
Physical State : Dispersion
Odor : Characteristic
Hazards of product : No significant immediate hazards for emergency response are known. Dike and contain spill.

Potential Health Effects

Eye Contact : May cause slight temporary eye irritation. Corneal injury is unlikely.
Skin Contact : Brief contact is essentially nonirritating to skin. Prolonged contact may cause slight skin irritation with local redness. Latex may stick to skin causing irritation upon removal.
Skin Absorption : Prolonged skin contact is unlikely to result in absorption of harmful amounts.
Inhalation : No adverse effects are anticipated from single exposure to vapor. Mist may cause irritation of upper respiratory tract (nose and throat).
Ingestion : Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

4. First Aid measures

Eye contact	:	Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.
Skin contact	:	Wash skin with plenty of water.
Inhalation	:	Move person to fresh air; if effects occur, consult a physician.
Ingestion	:	No emergency medical treatment necessary.
Notes to Physician	:	No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of patient.

5. Fire fighting measures

Extinguishing Media: To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn. Upon burning, the dry product generates dense black smoke.

Hazardous Combustion Products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Carbon dioxide, Carbon monoxide, Dense smoke, Organic compounds.
See Section 9 for related Physical Properties

6. Accidental release measures

Steps to be Taken if Material is Released or Spilled: Recover spilled material if possible. If unable to recover, then proceed with appropriate cleanup methods. Absorb with materials such as: clay, sand, sawdust, vermiculite. Collect in suitable and properly labeled containers. Water may be used for final cleaning of affected area. Wash water should be disposed of in accordance with local regulations. See Section 13, Disposal Considerations, for additional information.

Personal Precautions: Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological information.

7. Handling and storage

General Handling : Avoid prolonged or repeated contact with skin.

Storage : Store between 4.4 °C (40 °F) and 43.3 °C (110 °F). May coagulate if frozen at 0 °C (32 °F). Material may develop bacteria odor on long term storage. No safety problems known.

8. Exposure controls / personal protection

Exposure Limits

Consult local authorities for recommended exposure limits.
None established

Personal Protection

Eye/Face Protection : Use safety glasses (with side shields).

- Skin Protection : Wear clean, body-covering clothing.
- Hand Protection : Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Chlorinated polyethylene, Polyethylene, Ethyl vinyl alcohol laminate ("EVAL"), Polyvinyl chloride ("PVC" or "vinyl"), Viton. Examples of acceptable glove barrier materials include: Butyl rubber, Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR"). Avoid gloves made of: polyvinyl alcohol ("PVA"). Natural rubber ("latex")
NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
- Respiratory Protection : Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators:
Particulate filter.
- Ingestion : Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

- Ventilation: : Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

9. Physical and chemical properties

- Physical State : Dispersion
- Color : White
- Odor : Characteristic
- Flash point - Closed Cup : *Not applicable* water based product
- Flammable Limits in Air : Lower: No test data available
: Upper: No test data available
- Autoignition Temperature : *Not applicable* water based product
- Vapour Pressure : 17.5 mmHg @20°C *Literature* (water)
- Boiling Point (760 mmHg) : 100°C (212°F) *Literature* (based on water)
- Vapor Density (air=1) : 0.6 *Literature* water vapor
- Specific Gravity (H2O=1) : 0.95 - 1.10 *Estimated*
- Freezing Point : 0 °C (32 °F) *Literature* (water)
- Melting Point : 0 °C (32 °F) *Literature* (water)
- Solubility in Water (by weight) : *Visual* miscible with water in all proportions

pH	:	6.5 - 9.5 <i>Estimated</i>
Decomposition	:	No test data available
Temperature	:	
Dynamic Viscosity	:	<500 mPa.s <i>Estimated</i>

10. Stability and Reactivity

Stability/Instability

Stable under recommended storage conditions. See Storage, Section 7.

Conditions to Avoid	:	Can coagulate if frozen. The dry resin is combustibe
Incompatible materials	:	Addition of chemicals, such as acids or multivalent metal salts, may cause coagulation.

Hazardous Polymerization

Will not occur.

Thermal Decomposition

Decomposition products depend upon temperature, air supply and the presence of other materials.

11. Toxicological information

Acute Toxicity

Ingestion

For similar material(s): LD50, Rat > 5,000 mg/kg

Skin Absorption

For similar material(s): LD50, Rat >2,000 mg/kg

12. Ecological information

Movement & Partitioning

No bioconcentration of the polymeric component is expected because of its high molecular weight.
Latex dispersions will color water a milky white

Persistence and Degradability

The polymeric component is not expected to biodegrade

Ecotoxicity

Based largely or completely on information for similar material(s). Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 > 100 mg/L in the most sensitive species tested).

13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

14. Transport information

TDG Small container

NOT REGULATED

TDG Large container

NOT REGULATED

IMDG

NOT REGULATED

ICAO/IATA

NOT REGULATED

15. Regulatory information

U.S. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

Hazardous Products Act Information: CPR Compliance

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

Hazardous Products Act Information: WHMIS Classification

This product is not a "Controlled Product" under WHMIS.

16. Other information

Recommended Uses and Restrictions

For industrial use. Typically used as a binder.

Food and Drug Administration (FDA) Compliance:

When used unmodified for food contact applications, this product will comply with the U.S. Food, Drug and Cosmetic Act as amended under Food Additive Regulations 21 CFR 175.105, 176.170(b) and 176.180.

The uses cited above are subject to good manufacturing practices and any limitations, which are part of the regulations. The regulations should be consulted for complete details.

Legend

N/A	Not Available
W/W	Weight/Weight
OEL	Occupational Exposure Unit
STEL	Short Term Exposure Unit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Destination
VOL/VOL	Volume/Volume

Terratech, Inc. urges each customer or recipient of this MSDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.