SAFETY DATA SHEET



TMT10plex Label Reagents

Section 1. Identification

GHS product identifier	TMT10plex Label Reagents	
Other means of identification	TMT10plex Label Reagent Set, TMT10plex Isobaric Label Reagent Set; TMT ¹⁰ -1 Label Reagent, TMT ¹⁰ -127N Label Reagent, TMT ¹⁰ -127C Label Reagent, TMT ¹⁰ -Label Reagent, TMT ¹⁰ -128C Label Reagent, TMT ¹⁰ -129N Label Reagent, TMT ¹⁰ -Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMC ¹⁰ -130C L	-128N -129C
Product type	Solid.	
Product code	0090110 0090110B 0090111 0090406 1862795 1862796 1862797 1862798 1862 1862800 1862801 1862802 1862803 1862804 1862997 1862998 1862999 18630 1863001 1863002 1863003 1863004 1863005 1863006	
SDS #	9062	
Chemical formula	Not applicable.	
CAS #	Not available.	

Relevant identified uses of the substance or mixture and uses advised against Not applicable.

Supplier's details	:	Thermo Fisher Scientific Pierce Biotechnology P.O. Box 117 Rockford, IL 61105 United States 815.968.0747 or 800.874.3723 7 AM - 5 PM Central Time (GMT -06:00)
Emergency telephone number (with hours of	:	CHEMTREC: 800.424.9300 Outside US: 703.527.3887

operation)

Section 2. Hazards identification

OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	: Not classified.
GHS label elements	
Signal word	: No signal word.
Hazard statements	: No known significant effects or critical hazards.
Precautionary statements	
Prevention	: Not applicable.
Response	: Not applicable.
Storage	: Not applicable.
Disposal	: Not applicable.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	1	Substance
Other means of identification	:	TMT10plex Label Reagent Set, TMT10plex Isobaric Label Reagent Set; TMT ¹⁰ -126 Label Reagent, TMT ¹⁰ -127N Label Reagent, TMT ¹⁰ -127C Label Reagent, TMT ¹⁰ -128N Label Reagent, TMT ¹⁰ -128C Label Reagent, TMT ¹⁰ -129N Label Reagent, TMT ¹⁰ -129C Label Reagent, TMT ¹⁰ -130N Label Reagent, TMT ¹⁰ -130C Label Reagent, TMT ¹⁰ -131 Label Reagent,

CAS number/other identifiers

CAS number

: Not available.

Ingredient name	%	CAS number
TMT Label Reagents	98 - 100	-

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.

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

Section 4. First aid measures

Description of necess	ary first aid measures
Eye contact	 Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	 Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/e	ffects, acute and delayed
Potential acute health effe	<u>cts</u>
Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symp	<u>itoms</u>
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
Indication of immediate mediate me	dical attention and special treatment needed, if necessary
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

Date of issue/Date of revision

Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: No specific fire or explosion hazard.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
Special protective actions for fire-fighters	 Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training. For non-emergency Evacuate surrounding areas. Keep unnecessary and unprotected personnel from personnel entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. : If specialised clothing is required to deal with the spillage, take note of any information in For emergency responders Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel". **Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Methods and materials for containment and cleaning up Small spill : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. : Move containers from spill area. Prevent entry into sewers, water courses, basements or Large spill confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering
	eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage,	: Store in accordance with local regulations. Store in original container protected from
including any	direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials
incompatibilities	(see Section 10) and food and drink. Keep container tightly closed and sealed until ready
	for use. Containers that have been opened must be carefully resealed and kept upright
	to prevent leakage. Do not store in unlabeled containers. Use appropriate containment
	to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational	exposure	<u>limits</u>
Nono		

None.

Appropriate engineering controls	1	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls		Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be

necessary to reduce emissions to acceptable levels.

Individual protection measures	
Hygiene measures :	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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection :	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	
Hand protection :	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection :	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection :	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection :	Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance	
Physical state	: Solid. [Dried Powder.]
Color	: Not available.
Odor	: Not available.
Odor threshold	: Not available.
рН	: Not available.
Melting point	: Not available.
Boiling point	: Not available.
Flash point	: Not available.
Burning time	: Not available.
Burning rate	: Not available.
Date of issue/Date of revision	: 1/31/2014. Date of previous issue : No previous validation. Version : 1 4/10

Section 9. Physical and chemical properties

Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: Not available.
Solubility	: Not available.
Solubility in water	: Not available.
Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
SADT	: Not available.
Viscosity	: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Conclusion/Summary : To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Section 11. Toxicological information

Specific target organ toxici	<u>ty (single exposure)</u>
Not available.	
Specific target organ toxici	t <u>y (repeated exposure)</u>
Not available.	
Aspiration hazard	
Not available.	
Information on the likely	: Routes of entry anticipated: Oral, Inhalation.
routes of exposure	
Potential acute health effects	<u>2</u>
Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
	ysical, chemical and toxicological characteristics
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	No specific data.
Ingestion	: No specific data.
Delayed and immediate effect	cts and also chronic effects from short and long term exposure
Short term exposure	
Potential immediate	: Not available.
effects	
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	<u>ects</u>
Not available.	
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	25252.5 mg/kg
Dermal	49494.9 mg/kg
Inhalation (vapors)	555.6 mg/l

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability Not available. Bioaccumulative potential Not available. Mobility in soil Soil/water partition : Not available.

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 at all times 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #		Reference number
Acetonitrile (I,T)	75-05-8	Listed	U003

Section 14. Transport information

	DOT Classification	ΙΑΤΑ
UN number	Not regulated.	Not regulated.
UN proper shipping name	-	-
Transport hazard class(es)	-	-
Packing group	-	-
Environmental hazards	No.	No.
Additional information	-	-

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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Section 14. Transport information

Transport in bulk according : Not available. to Annex II of MARPOL 73/78 and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations	: TSCA 8(a) PAIR: acetonitrile
	TSCA 8(a) CDR Exempt/Partial exemption: Not determined
	United States inventory (TSCA 8b): Not determined.
	Clean Water Act (CWA) 307: acetonitrile
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: 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
<u>SARA 302/304</u>	
Composition/information	n ingredients
No products were found.	
SARA 304 RQ	: Not applicable.
<u>SARA 311/312</u>	
Classification	: Not applicable.

Composition/information on ingredients

No products were found.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	acetonitrile	75-05-8	1 - 3
Supplier notification	acetonitrile	75-05-8	1 - 3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations	
Massachusetts	: The following components are listed: ACETONITRILE
New York	: The following components are listed: Acetonitrile; Ethanenitrile
New Jersey	: The following components are listed: ACETONITRILE; CYANOMETHANE
Pennsylvania	: The following components are listed: ACETONITRILE
Canada inventory	: Not determined.
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 determined. Taiwan inventory (CSNN): Not determined.

Section 15. Regulatory information

Chemical Weapons Convention List Schedule I Chemicals	:	Not listed
Chemical Weapons Convention List Schedule II Chemicals	:	Not listed
Chemical Weapons Convention List Schedule III Chemicals	:	Not listed

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health0Chronic Health HazardFlammability0Physical hazards0National Fire Protection Association (U.S.A.)

Health0Flammability0Instability/Reactivity0Special

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History	
Date of printing	: 2/3/2014.
Date of issue/Date of revision	: 1/31/2014.
Date of previous issue	: No previous validation.
Version	: 1
Prepared by	: SDS Specialist
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association IBC = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	: Not available.

History

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Section 16. Other information

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.