

SAFETY DATA SHEET

Issue Date 10-Sep-2025
Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name DMT-2'-O-TBDMS-pseudouridine Phosphoramidite (mixture of isomers)
Other means of identification
Product Code(s) 046-35151

Recommended use of the chemical and restrictions on use

Recommended Use For research use only.
Uses advised against Seek expert judgment when using for purposes other than those recommended.

Details of the supplier of the safety data sheet

Manufacturer Address	Distributor
FUJIFILM Wako Pure Chemical Corporation	FUJIFILM Irvine Scientific
1-2, Doshomachi 3-Chome,	E. Warner Avenue, Santa Ana, CA 92705-5505, U.S.A.: +1 949 261 7800
Chuo-ku Osaka 540-8605, Japan	Fax: +1 949 261 6522
Tel : +81-6-6203-3741	
Fax: +81-6-6201-5964	

2. HAZARDS IDENTIFICATION

GHS classification**Classification of the substance or mixture****Acute toxicity - Oral**

Category 4

Pictograms**Signal word**

Warning

Hazard statements

H302 - Harmful if swallowed

Precautionary statements-(Prevention)

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product

Precautionary statements-(Response)

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth

Precautionary statements-(Storage)

Not applicable

Precautionary statements-(Disposal)

Dispose of contents/container to an approved waste disposal plant

Others**Other hazards** Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Substance

Formula C45H61N4O9PSi

Chemical Name	Molecular weight	CAS RN	Weight-%
5'-O-(4,4'-Dimethoxytrityl)-2'-O-tert-butylidimethylsilyl-pseudouridine-3'-[(2-cyanoethyl)-(N,N-diisopropyl)] Phosphoramidite	861.05	163496-23-9	97.0
Ethyl Acetate	88.10	141-78-6	1.6
Acetonitrile	41.05	75-05-8	0.20

Impurities and/or Additives: residue : Acetonitrile, Ethyl Acetate

4. FIRST AID MEASURES

First aid measures

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Inhalation	Remove to fresh air.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing media

Water spray (fog). Carbon dioxide (CO₂). Foam. Extinguishing powder. Sand.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge

none.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods and material for containment and cleaning up Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures Avoid contact with strong oxidizing agents.

Protective measures Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage conditions Container protected from light, and store tightly closed in freezer (-20°C). Packed with an inert gas. Store locked up.

Packaging materials Glass.

Incompatible materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits

Chemical Name	ACGIH	OSHA PEL	NIOSH IDLH
Ethyl Acetate 141-78-6	TWA: 400 ppm	TWA: 400 ppm TWA: 1400 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 1400 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 1400 mg/m ³
Acetonitrile 75-05-8	TWA: 20 ppm Skin	TWA: 40 ppm TWA: 70 mg/m ³ (vacated) TWA: 40 ppm (vacated) TWA: 70 mg/m ³ (vacated) STEL: 60 ppm (vacated) STEL: 105 mg/m ³ S* as CN	IDLH: 137 ppm TWA: 20 ppm TWA: 34 mg/m ³

Personal protective equipment

Respiratory protection Dust mask (JIS T 8151)

Hand protection chemical protective gloves (JIS T 8116)

Eye protection protective eyeglasses or chemical safety goggles (JIS T 8147)

Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Color

White - slightly yellow

Appearance

crystals - powder

Odor

no data available

pH	no data available
Melting point/freezing point	no data available
Boiling point, initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate:	no data available
Flammability (solid, gas):	no data available
Upper/lower flammability or explosive limits	
Upper:	no data available
Lower:	no data available
Vapour pressure	no data available
Vapour density	no data available
Specific Gravity / Relative density	no data available
Solubilities	acetone , Ethanol : soluble . water : practically insoluble .
n-Octanol/water partition coefficient:(log Pow)	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
Viscosity (coefficient of viscosity)	no data available
Dynamic viscosity	no data available
Particle characteristics	no data available

10. STABILITY AND REACTIVITY

Stability

Chemical stability May be altered by light.
Reactivity no data available

Hazardous reactions

None under normal processing

Conditions to avoid

Extremes of temperature and direct sunlight

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Phosphorus oxide

11. TOXICOLOGICAL INFORMATION

Acute toxicity no data available

Skin irritation/corrosion no data available
Serious eye damage/ irritation no data available
Respiratory or skin sensitization no data available
Reproductive cell mutagenicity no data available
Carcinogenicity no data available

Reproductive toxicity no data available
STOT-single exposure no data available
STOT-repeated exposure no data available
Aspiration hazard no data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility

Chemical Name	Partition coefficient
Ethyl Acetate 141-78-6	0.73
Acetonitrile 75-05-8	-0.34

Mobility in soil

No information available

Other Data

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Precautionary including method of disposing contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT

UN/ID No Not regulated
 Proper shipping name: Not applicable
 UN classification
 Subsidiary hazard class
 Packing group
 Marine pollutant Not applicable

IATA

UN/ID No Not regulated
 Proper shipping name: -
 UN classification
 Subsidiary hazard class
 Packing group
 Environmentally Hazardous Substance Not applicable

IMDG

UN/ID No Not regulated
 Proper shipping name: -
 UN classification
 Subsidiary hazard class
 Packing group
 Marine pollutant (Sea) Not applicable

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS RN	Weight-%	SARA 313 - Threshold Values %
5'-O-(4,4'-Dimethoxytrityl)-2'-O-tert-butylidimethylsilyl-pseudouridine-3'-[(2-cyanoethyl)-(N,N-diisopropyl)] Phosphoramidite - 163496-23-9	163496-23-9	97.0	N/A
Ethyl Acetate - 141-78-6	141-78-6	1.6	N/A
Acetonitrile - 75-05-8	75-05-8	0.20	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Acetonitrile 75-05-8	N/A	X	X	N/A

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethyl Acetate 141-78-6	5000 lb	N/A	RQ 5000 lb final RQ RQ 2270 kg final RQ
Acetonitrile 75-05-8	5000 lb	N/A	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations**California Proposition 65**

This product does not contain any chemicals regulated by Proposition 65

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethyl Acetate 141-78-6	X	X	X
Acetonitrile 75-05-8	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

Issue Date 10-Sep-2025

Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The

information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet