

MATERIAL SAFETY DATA SHEET

1 IDENTIFICATION

Details of the supplier of the safety data sheet :

Company : Nanohelix Co., Ltd.
 Address : 43-15, Techno 5-ro, Yuseong-gu Daejeon 34014, South Korea
 Telephone Number : +82-42-867-9055
 Fax Number : +82-42-867-9057
<http://www.nanohelix.net>

Information department :

Quality control, Nanohelix Co., Ltd.
 E-mail : info@nanohelix.net

Product Name : 1M DTT
U.N.Number : None allocated
Dangerous Goods Class and Subsidiary Risk : None allocated
Hazchem Code : None allocated
Poison Schedule : None allocated
Use : Laboratory chemicals

2 HAZARDS IDENTIFICATION

GHS Classification

GHS Label element

Hazard pictograms



GHS07

Signal word : Warning

Health hazards

Category 4 : Acute oral toxicity
 Category 2 : Skin corrosion/irritation
 Category 2 : Serious eye damage/eye irritation
 Category 3 : Specific target organ systemic toxicity (single exposure)

Physical hazards : Not hazardous

Hazards statements

H302 : Harmful if swallowed
 H315 : Causes skin irritation
 H319 : Causes serious eye irritation
 H335 : May cause respiratory irritation

Precautionary statements

Prevention

P264 : Wash hands thoroughly after handling.
 P280 : Wear protective gloves/protective clothing/eye protection/face protection.
 P261 : Avoid breathing dust/fume/gas/mist/vapors/spray.
 P270 : Do not eat, drink or smoke when using this product.

Response

P301 + P310 : IF SWALLOWED - Immediately call a POISON CENTER or doctor/physician.

<i>P302 + P352</i>	: IF ON SKIN - Wash with plenty of soap and water.
<i>P304 + P340</i>	: IF INHALED - Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<i>P330</i>	: Rinse mouth.
Storage	
<i>P403 + P233</i>	: Store in a well-ventilated place. Keep container tightly closed.
Disposal	
<i>P501</i>	: Dispose of contents/ container to an approved waste disposal plan.
HMIS	
Health	2
Flammaability	0
Reactivity	0

3 COMPOSITION/ INFORMATION ON INGREDIENTS		
Substance / Mixture	: Mixture	
Description	: The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Nanohelix Co., Ltd. trade secret.	
Hazardous ingredients		
Name	CAS No.	Weight (%)
DTT	3483-12-3	>=1 - <2

4 FIRST-AID MEASURES	
Skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Take off all contaminated clothing and wash it before reuse. Immediate medical attention is required.
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Ingestion	: Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.
Inhalation	: Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately.
Notes to physician	: Treat symptomatically.

5 FIRE FIGHTING MEASURES	
Suitable extinguishing media	: Water spray. Carbon dioxide (CO ₂). Foam. Dry chemical.
Specific hazards during fire fighting	: Wear self-contained breathing apparatus and protective suit.
Specific hazards arising from the chemical	: Not known.

6 ACCIDENTAL RELEASE MEASURES	
Personal precautions	: Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protection equipment.
Methods for cleaning up	: Soak up with inert absorbent material.
Environmental precautions	: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for more information.

7 | HANDLING AND STORAGE

Handling	: Always wear recommended Personal Protective Equipment. No special handling advices are necessary.
Storage	: Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

8 | EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines	: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Other information	: These recommendations apply to the product as supplied.
Engineering Measures	: Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	
Respiratory protection	: None under normal use conditions.
Hand Protection	: Latex gloves.
Eye/Face Protection	: Tightly fitting safety goggles.
Skin and body protection	: Wear suitable protective equipment. Boots.
Hygiene measures	: When using, do not eat, drink or smoke, Handle in accordance with good industrial hygiene and safety practice.

9 | PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Color	: No data available.
Odor	: Characteristic
Odor Threshold	: No data available.
pH	: No data available.
Melting point/range	: No data available.
Boiling point/boiling range	: >40°C
Flash Point	: >101°C (Closed-cup)
Evaporation rate	: No data available.
Burning rate	: No data available.
Upper explosion limit	: No data available.
Lower explosion limit	: No data available.
Vapor pressure	: No data available.
Relative vapor density	: No data available.
Relative density	: No data available.
Density	: No data available.
Solubility(ies)	
<i>Water solubility</i>	: No data available.
<i>Solubility in other solvents</i>	: No data available.
Partition coefficient:	: No data available.
n-octanol/water	
Autoignition temperature	: Not determined.
Decomposition temperature	: No data available.
Viscosity	
<i>Viscosity, dynamic</i>	: No data available.
<i>Viscosity, kinematic</i>	: No data available.
Explosive properties	: No data available.
Oxidizing properties	: No data available.

10 STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Stability	: Stable under normal conditions.
Explosion Data	
<i>Sensitivity to Mechanical Impact</i>	: None.
<i>Sensitivity to Static Discharge</i>	: None.
Hazardous Reactions	: None under normal processing.
Conditions to Avoid	: None known based on information supplied.
Hazardous Decomposition Products	: None under normal use conditions.

11 TOXICOLOGICAL INFORMATION

Acute toxicity	
<i>ATEmix (oral)</i>	: No information available.
<i>ATEmix (dermal)</i>	: No information available.
<i>ATEmix (inhalation-gas)</i>	: No information available.
<i>ATEmix (inhalation-dust/mist)</i>	: No information available.
<i>ATEmix (inhalation-vapor)</i>	: No information available.
Skin corrosion/irritation	: No information available.
Serious eye damage/eye irritation	: No information available.
Sensitization	: No information available.
Mutagenic effects	: No information available.
Reproductivity toxicity	: No information available.
STOT-single exposure	: No information available.
STOT-repeated exposure	: No information available.
Neurological effects	: No information available.
Target Organ Effects	: No information available.
Aspiration Hazard	: No information available.

12 ECOLOGICAL INFORMATION

Ecotoxicity	: No information available.
Persistence and degradability	: No information available.
Bioaccumulation	: No information available.
Mobility	: No information available.

13 DISPOSAL CONSIDERATION

Waste from Residues / Unused Products	: Dispose of as hazardous waste in compliance with local and national regulations.
Contaminated packaging	: Dispose of as hazardous waste in compliance with local and national regulations.

14 TRANSPORT INFORMATION

IMDG/IMO	: Not regulated.
ICAO	: Not regulated.
ADR/RID	: Not regulated.
ICAO/IATA	: Not regulated.
Japan	: Not regulated.

15 REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 304 : This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards.

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Prop. 65 : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

TSCA list

No substances are subject to TSCA 12(b) export notification requirements.

16 OTHER INFORMATION

The data provided in this Material Safety Data Sheet is based on current experience and knowledge. The purpose of this Material Safety Data Sheet is to describe products in terms of their safety requirements. This data given is designed only as a guidance for safe handling, use, storage, transportation, disposal and is not to be considered quality specification or warranty. The above details do not imply any guarantee concerning composition or performance of this product.