

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : TUBALL MATRIX 822 PLT
Type of product : Nanoform embedded in a matrix

1.2. Relevant identified uses of the substance or mixture and uses advised against

Main use category : Industrial use
Use of the substance/mixture : Used as an additive in polymers, resins and/or coatings

1.3. Details of the supplier of the safety data sheet

Supplier

Europe:
OCSiAl Europe S.a.r.l.
L-3364, Leudelange,
1, rue de la Poudrerie,
Grand Duchy of
Luxembourg
T +352 27 99 03 73
09.00-17.00 GMT+2
europe@ocsial.com

1.4. Emergency telephone number

Europe:
+352 27 99 03 73
09.00-17.00; GMT+2

Türkiye:
Acil: 112
Ulusal Zehir Merkezi
(UZEM): 114

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with the "Regulation on the Classification, Labeling and Packaging of Substances and Mixtures" (SEA) published in the Official Gazette dated 11 December 2013 and numbered 28848 (Duplicate)

Serious eye damage/eye irritation, Category 2 H319
Full text of H-statements: see section 16
Adverse physicochemical, human health and environmental effects : Causes skin and eye irritation. Causes serious eye irritation.

2.2. Label elements

Labeling in accordance with the "Regulation on the Classification, Labeling and Packaging of Substances and Mixtures" (SEA) published in the Official Gazette dated 11 December 2013 and numbered 28848 (Duplicate)

Hazard pictograms (SEA) :



GHS07

Signal word (SEA) : Warning
Hazard statements (SEA) : H319 - Causes serious eye irritation.

Precautionary statements (SEA) : P264 - Wash hands with soap and water thoroughly after handling.
P280 - Wear protective gloves, eye protection, protective clothing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

Other hazards not included in the classification

This substance/mixture does not meet the criteria of PBT in accordance with the Regulation on Safety Data Sheets on Harmful Substances and Mixtures published in the Official Gazette dated 13.12.2014 and numbered 29204

This substance/mixture does not meet the vPvB criteria in accordance with the Regulation on Safety Data Sheets on Harmful Substances and Mixtures published in the Official Gazette dated 13.12.2014 and numbered 29204

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Substance / Identity of the mixture	%	Classification in accordance with the "Regulation on the Classification, Labeling and Packaging of Substances and Mixtures" (SEA) published in the Official Gazette dated 11 December 2013 and numbered 28848 (Duplicate)
Polyol ester	Trade Secret	75	Not classified
Single wall carbon nanotubes*	(CAS-No.) Not assigned for EU-REACH (EC-No.) 943-098-9 (REACH-No.) 01-2120130006-75-0000	25	Eye Irrit. 2, H319

Comments : * Single wall carbon nanotubes TUBALL™

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Get medical attention.
First-aid measures after skin contact : Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Wash with plenty of soap and water. Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Get medical attention. 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.
First-aid measures after ingestion : Rinse mouth out with water. Do not induce vomiting. Get medical attention. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after eye contact : Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical. Carbon dioxide (CO₂). Water spray. Water fog. Foam.
 Unsuitable extinguishing media : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

Protection during firefighting : Full face mask. Positive pressure self-contained breathing apparatus (SCBA). Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing.
 Emergency procedures : Ventilate spillage area. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Evacuate area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear suitable protective clothing, gloves and eye/face protection. In case of fire: Positive pressure self-contained breathing apparatus (SCBA). For further information refer to section 8: "Exposure controls/personal protection".
 Emergency procedures : Avoid formation of dust. Provide adequate ventilation. Evacuate area.

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter into surface water or drains. Collect contaminated extinguishing water separately and must not enter the sewage system.

6.3. Methods and material for containment and cleaning up

For containment : Clean spills promptly. Ventilate affected area. Stop leak if safe to do so.
 Methods for cleaning up : Mechanically recover the product. Clear up rapidly by scoop or vacuum. Avoid generation and spreading of dust. Collect in closed container and remove to a safe place for disposal by burning.
 Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For disposal of contaminated materials refer to section 13 : "Disposal considerations". For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Carry out operations in the open/under local exhaust/ventilation or with respiratory protection. Avoid breathing dust. Take precautionary measures against static discharge. Avoid contact with skin and eyes. Wear personal protective equipment.
 Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in dry, well-ventilated area. Store at ambient temperature. Keep container tightly closed. Protect from sunlight. Store in a well-ventilated place. Keep cool.
Heat and ignition sources	: Keep away from open flames, hot surfaces and sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Polyol ester	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1080 mg/kg bw/day
Long-term - systemic effects, inhalation	76 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	3.9 mg/kg bw/day
Long-term - systemic effects, inhalation	13.4 mg/m ³
Long-term - systemic effects, dermal	386 mg/kg bw/day

Single wall carbon nanotubes	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	No hazard identified
Acute - systemic effects, inhalation	Low hazard (no threshold identified)
Acute - local effects, dermal	No hazard identified
Acute - local effects, inhalation	Low hazard (no threshold identified)
Long-term - systemic effects, dermal	No hazard identified
Long-term - local effects, dermal	No hazard identified
Long-term - local effects, inhalation	Low hazard (no threshold identified)
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	No hazard identified
Acute - systemic effects, inhalation	Low hazard (no threshold identified)
Acute - systemic effects, oral	No hazard identified
Acute - local effects, dermal	No hazard identified
Acute - local effects, inhalation	No hazard identified
Long-term - systemic effects, dermal	No hazard identified
Long-term - local effects, dermal	No hazard identified
Long-term - local effects, inhalation	No hazard identified
PNEC (Water)	
PNEC aqua (freshwater)	No hazard identified
PNEC aqua (marine water)	No hazard identified

Single wall carbon nanotubes

PNEC (Sediment)

PNEC sediment (freshwater) : No hazard identified

PNEC sediment (marine water) : No hazard identified

PNEC (Soil)

PNEC soil : No hazard identified

PNEC (Oral)

PNEC oral (secondary poisoning) : No potential to cause toxic effects if accumulated (in higher organisms) via the food chain

PNEC (STP)

PNEC sewage treatment plant : No data available: testing technically not feasible

8.2. Exposure controls

Appropriate engineering controls	: Provide local exhaust or general room ventilation.
Personal protective equipment	: Safety glasses. Protective clothing. Gloves.
Hand protection	: Chemically resistant protective gloves. EN 374
Eye protection	: Chemical goggles or safety glasses. EN 166
Skin and body protection	: Protective clothing (with elasticated cuffs and closed neck). EN 14605
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Selection of respiratory protection must be based on the result of the risk assessment

Personal protective equipment symbol(s)



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Pellets.
Colour	: Black
Odour	: Odourless
Odour threshold	: No data available
pH	: No data available
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: > 270 °C (Polyol ester)
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

Explosive limits : Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Polyol ester	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

Single wall carbon nanotubes	
NOAEL (animal/female, F0/P)	no adverse effects seen at highest dose tested > 1000 mg/kg bw/day - OECD 422
NOAEL (animal, F1)	> 1000 mg/kg bw/day - for adverse effects on prenatal development (conceptus to birth) - OECD 422
NOAEL (animal, F1)	> 1000 mg/kg bw/day - for adverse effects on postnatal development (pup) - OECD 422
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Single wall carbon nanotubes	
NOAEL (oral, rat, 90 days)	no adverse effects seen at highest dose tested > 1000 mg/kg bodyweight/day - OECD 422

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

Polyol ester	
LC50 fish - 96h	> 100 mg/l <i>Cyprinus carpio</i> (Common carp)
EC50 crustacea - 48h	> 100 mg/l <i>Daphnia magna</i> (Water flea)
EC50 algae - 72h	> 100 mg/l <i>Pseudokirchnerella subcapitata</i>

12.2. Persistence and degradability

Polyol ester	
Persistence and degradability	Readily biodegradable.
Biodegradation	72 % - 28 days - OECD 301B

12.3. Bioaccumulative potential

Polyol ester	
Bioconcentration factor (BCF REACH)	3.16
Partition coefficient n-octanol/water (Log Pow)	30.81
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
Single wall carbon nanotubes	This substance/mixture does not meet the PBT criteria according to the Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures published in the Official Journal numbered 29204 on December 13, 2014 This substance/mixture does not meet the vPvB criteria according to the Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures published in the Official Journal numbered 29204 on December 13, 2014

12.6. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Regional legislation (waste) : Dispose of this material and its container at hazardous or special waste collection point. Disposal must be done according to official regulations. Waste Management Regulation published in the Official Journal numbered 29314 on April 2, 2015.
- Waste treatment methods : Dispose through controlled incineration or authorised waste dump. Dispose of contents/container in accordance with licensed collector's sorting instructions.
- Sewage disposal recommendations : Prevent entry to sewers and public waters.
- Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Additional information : Clean up even minor leaks or spills if possible without unnecessary risk.
- European List of Waste (LoW) code : 06 13 99 - wastes not otherwise specified

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated for transport				
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. National regulations

Local regulations (Turkey)

: It has been prepared within the framework of the "Regulation on Safety Data Sheets for Harmful Substances and Mixtures" dated 13 December 2014 and numbered 29204 as stipulated by the regulation.
It is classified in accordance with the "Regulation on the Classification, Labeling and Packaging of Substances and Mixtures" (SEA) published in the Official Gazette dated 11 December 2013 and numbered 28848 (Duplicate).
Regulation on the Carriage of Dangerous Goods by Road published in the Official Gazette dated 24 October 2013 and numbered 28801
Personal Protective Equipment Regulation published in the Official Gazette dated 1 May 2019 and numbered 30761
Regulation on the Use of Personal Protective Equipment in Workplaces published in the Official Gazette dated July 2, 2013 and numbered 28695
Occupational Health and Safety Regulation published in the Official Gazette dated 9 December 2003 and numbered 25311
28848 of 11 December 2013 (2. Regulation on Test Methods to be Applied in the Determination of the Physico-Chemical, Toxicological and Ecotoxicological Properties of Substances and Mixtures published in the Official Gazette numbered Duplicate)
Regulation on Health and Safety Measures in the Work with Chemical Substances published in the Official Gazette dated 12 August 2013 and numbered 28733
Regulation on Health and Safety Measures in the Work with Carcinogenic or Mutagen Substances published in the Official Gazette dated 6 August 2013 and numbered 28730.

This product doesn't contain any substances that is controlled or prohibited for use according to the Regulation on Ozone Depleting Substances published in the Official Journal numbered 30031 on April 7, 2017.

Substance(s) are not subject to Regulation on Persistent Organic Pollutants (O.G. 14.11.2018-30595)

SECTION 16: Other information

Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic

Abbreviations and acronyms

PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
IARC	International Agency for Research on Cancer
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
N.O.S.	Not Otherwise Specified

Data sources : ECHA (European Chemicals Agency).
Classification in accordance with the "Regulation on the Classification, Labeling and Packaging of Substances and Mixtures" (SEA) published in the Official Gazette dated 11 December 2013 and numbered 28848 (Duplicate).

Full text of H- and EUH-statements

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation.

Revision : All recent revision(s) are noted by a bold triangle pointed to right '►'

Disclaimer : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. It is the user's responsibility to take mentioned precaution measures and ensure that this information is complete and sufficient for the use of this product.

The person who prepares the Safety Data Sheet;

Name	Ozan Gencer
Certificate number	TÜV1125.08
Certificate validity date	01/01/2025
Expert note	This safety data sheet is based on the information received from the product owner. Due to the fact that this information is incomplete or incorrect, the safety data sheet preparer cannot be held responsible for the incorrect arrangement of the prepared safety data sheet and for the material damages and moral negativities that the product owner company will encounter for this reason.



TUBALL MATRIX 822

Safety Data Sheet

In accordance with the Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures published in the Official Journal numbered 29204 on December 13, 2014
Issue date: 6/9/2022 Version: 1.0

Disclaimer The information in this Safety Data Sheet is obtained from sources that we believe to be reliable. However, it is provided without any express or implicit warranty of their accuracy. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may not be within our knowledge. For these and similar reasons, we disclaim liability for any loss or damage that may arise from the handling, storage, use or disposal of the product. This Safety Data Sheet is intended for use of this product only. If the product is used as an ingredient in another product, the information in this Safety Data Sheet may be invalid.

SDS Turkey

This information is based on our existing knowledge and is intended to identify the product solely in terms of health, safety and environmental requirements. Therefore, it should not be construed as guaranteeing any special qualities of the product..