

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

#### 1.1. Product identifier ►

Product form : Mixture  
Product name : TUBALL LATEX H2O (NSA)  
Type of product : Nanoform embedded in a matrix

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

##### 1.2.1. Relevant identified uses

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

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet ►

Europe:	USA:	Asia:	China:	India:
OCSiAl Europe S.a.r.l. L-3364, Leudelange, 1, rue de la Poudrerie, Grand Duchy of Luxembourg	OCSiAl LLC 500 S Front St., Suite 860, Columbus, OH 43215, USA	OCSiAl Asia Pacific Co., Ltd. Office 208, Pilot Plant Bldg., Incheon Technopark 12 Gaetbeol-ro, Yeonsu-gu, Incheon, 406-840 Republic of Korea	OCSiAl Hong Kong Limited No. 1102, 11/F, Lippo Sun Plaza, 28 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong	VIMAL INTERTRADE PVT LTD. Shivam Centrum, Sahar Road, Koldongri, Above Nexa Showroom, Andheri East, Mumbai – 400 069
T +352 27 99 03 73 09.00-17.00 GMT+2 europe@ocsial.com	T +1 415 906 5271 09.00-17.00 GMT-4 usa@ocsial.com	T +82 32 260 0407 09.00-17.00 GMT+9 asiapacific@ocsial.com	T +852 3575 3946 09:00-17:00; GMT+8 china@ocsial.com	T +91 22 6288 4200 09:00-17:00; GMT+5.5 india@ocsial.com

#### 1.4. Emergency telephone number

**EMEA** : +44 1865 407333 (English) (Carechem 24)  
**East/South East Asia** : +65 3158 1074 (English, Hindi, Japanese, Korean, Malay, Mandarin) (Carechem 24)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

#### 2.3. Other hazards

Other hazards which do not result in classification : None under normal conditions.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures ►

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	95.75 – 98.8	Not classified
Sodium salt of polynaphthalene sulphonic acid	Trade Secret	1 – 3.75	Not classified

# TUBALL LATEX H2O (NSA)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Single wall carbon nanotubes*	(CAS-No.) Not assigned for EU-REACH (EC-No.) 943-098-9 (REACH-No.) 01-2120130006-75-0000	0.2 – 0.5	Eye Irrit. 2, H319
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Full text of H- and EUH-statements: see section 16

<b>*Single wall carbon nanotubes TUBALL™</b>		
Name of (set of) nanoform(s)	Tuball™ - grades 1RW02 / 1RW03 are part of one set of nanoform	
Value	-	
Number based particle size distribution	d10	1.2 - 1.45 nm
	d50	1.6 - 1.8 nm
	d90	1.9 - 2.2 nm
Shape and aspect ratio of particles	Elongated tubes; length to diameter ratio 2000 – 10000:1	
Crystallinity	Amorphous	
Surface functionalisation / treatment	No	
Process	Chemical vapor deposition (CVD)	
Specific surface area	300 – 1500 m <sup>2</sup> /g	
Additional information	G/D range : ≥ 40 (RAMAN at 532 nm)	

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after skin contact	: Wash with plenty of soap and water. Take off immediately all contaminated clothing and wash it before reuse.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

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

Symptoms/effects	: No additional information available.
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### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Not applicable.
Unsuitable extinguishing media	: Not applicable.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Not applicable.
Explosion hazard	: Not applicable.
Reactivity in case of fire	: Not applicable.

### 5.3. Advice for firefighters

Other information	: No additional information available.
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## 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	: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Evacuate area.

#### 6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing, gloves and eye/face protection.
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Emergency procedures : Provide adequate ventilation. Evacuate area. Avoid contact with skin and eyes.

### 6.2. Environmental precautions

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. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area. Stop leak if safe to do so.  
Methods for cleaning up : Absorb remaining liquid with sand or inert absorbent and remove to safe place. Collect in closed container and remove to a safe place for disposal by burning. Clean spills promptly.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : None known.  
Precautions for safe handling : Avoid contact with skin, eyes and clothing.  
Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Dispersion should be stored in an inert environment in a tightly closed container at a temperature above 5 °C till + 50 °C. Recommended time of use opened container is 72 hours  
Incompatible products : Strong oxidizing agents. Strong acids.  
Storage temperature : 5 – 50 °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Single wall carbon nanotubes	
<b>DNEL/DMEL (Workers)</b>	
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)
<b>DNEL/DMEL (General population)</b>	
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
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	No hazard identified
PNEC aqua (marine water)	No hazard identified

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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:

No additional information available.

#### Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

#### Hand protection:

Chemically resistant protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves, Reusable gloves	Nitrile rubber (NBR), PVC, Neoprene		> 0.18		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.

#### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties ►

Physical state	: Liquid
Colour	: Black.
Odour	: Odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
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	: No data available
Viscosity, dynamic	: No data available

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Explosive properties : No data available  
Oxidising properties : No data available  
Explosive limits : No data available

### Single wall carbon nanotubes

Particle size : See section 3.2  
Particle size distribution : See section 3.2  
Particle shape : See section 3.2  
Particle aspect ratio : See section 3.2  
Particle aggregation state : Bundles of nanotubes  
Particle agglomeration state : Single wall carbon nanotubes are embedded in a matrix  
Particle specific surface area : See section 3.2  
Particle dustiness : 1660 mg/kg (DIRM - Single wall carbon nanotubes)

### 9.2. Other information

Additional 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

None known.

### 10.5. Incompatible materials

Strong oxidizing agents. Strong acids.

### 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

#### Sodium salt of polynaphthalene sulphonic acid

LD50 oral rat	2000 – 5000 mg/kg
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Skin corrosion/irritation : Not classified  
pH: 8.5 – 10  
Serious eye damage/irritation : Not classified  
pH: 8.5 – 10  
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)	> 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)	> 1000 mg/kg bodyweight/day - OECD 422
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Aspiration hazard : Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

##### Sodium salt of polynaphthalene sulphonic acid

LC50 fish - 96h > 100 mg/l Brachydanio rerio (zebra-fish) - OECD 203

#### 12.2. Persistence and degradability

##### Sodium salt of polynaphthalene sulphonic acid

Persistence and degradability Not readily biodegradable.

Chemical oxygen demand (COD) ≈ 1420 mg O<sub>2</sub>/g substance

#### 12.3. Bioaccumulative potential

##### Sodium salt of polynaphthalene sulphonic acid

Bioaccumulative potential Bioaccumulation is not expected to occur.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

##### Component

Sodium salt of polynaphthalene sulphonic acid This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Single wall carbon nanotubes This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations ►

#### 13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of this material and its container at hazardous or special waste collection point.  
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
<b>14.1. UN number</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

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### 14.5. Environmental hazards

Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 14.7. Transport in bulk according to Annex II of Marpol 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. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

Not listed on the Canadian DSL (Domestic Substances List)

##### Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG)  
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)

Water hazard class (WGK) : WGK nwg, Non-hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

##### Switzerland

Storage class (LK) : LK 10/12 - Liquids

### 15.2. Chemical safety assessment

**For the following substances of this mixture a chemical safety assessment has been carried out**

Single wall carbon nanotubes

## SECTION 16: Other information

### Abbreviations and acronyms:

CAS-No. Chemical Abstract Service number

DIRM Mass-based Dustiness Index

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EC-No.	European Community number
EN	European Standard
LC50	Median lethal concentration
NOAEL	No-Observed Adverse Effect Level
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet

### 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.

SDS EU (REACH Annex II)

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.