

## SECTION 1 Chemical product and company identification

**Chemical name** : TUBALL MATRIX 601

### Details of the supplier:

欧洲:	美国:	亚洲:	中国:	印度:
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

### Emergency phone number

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

**China** : 400 120 6011 (English, Mandarin) (toll-free, access from China only)

**中国 (大陆 · 24 小时应急电话)** : \*\*0532 8388 9090 (英语 · 中文)

**China (Mainland)** : \*\*0532 8388 9090 (English, Chinese; 24-hour emergency call)

**Recommended use of the chemical** : Industrial use as additive in polymers, resins and/or coatings

## SECTION 2 Hazards identification


### Emergency overview

#### GHS hazard classification

Health hazards : Serious eye damage/eye irritation, Category 2A

Other hazards not mentioned above are Not applicable or No data is available.

#### Label elements

Hazard pictograms (GHS CN) : 

Signal word (GHS CN) : Warning.

Hazard statements (GHS CN) : H319 - Causes serious eye irritation.

#### Precautionary statements (GHS CN)

Prevention measures : P264 - Wash hands thoroughly after handling.

P280 - Wear eye protection, protective clothing, protective gloves.

Incident response : P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

P337+P313 - If eye irritation persists: Get medical advice/attention.

### Physical and chemical hazards

No additional information available

### Health hazards

May be harmful in contact with skin

Causes serious eye irritation

Symptoms/effects

: Excessive exposure may lead to burning sensation in the mouth and throat, salivation, nausea, abdominal pain, vomiting, and diarrhoea

Symptoms/effects after eye contact

: Eye irritation

Symptoms/effects after inhalation

: May cause irritation to the respiratory tract

Symptoms/effects after skin contact

: May cause moderate irritation, including burning sensation, tearing, redness or swelling

### Environmental hazards

No additional information available

### Other hazards

No additional information available

## SECTION 3 Composition/information on ingredients ►

### Product form

: Mixture.

Ingredient(s)	Concentration or concentration ranges (w/w %)	CAS No.
Polydimethylsiloxane	90	Trade secret
Single wall carbon nanotubes*	10	N/A

Comments

: \* Single wall carbon nanotubes TUBALL™

## SECTION 4 First-aid measures

### Description of necessary first-aid measures

First-aid measures general

: Call a poison center or a doctor if you feel unwell

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact

: Wash skin with plenty of water.

Take off contaminated clothing.

First-aid measures after eye contact

: 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 of water. Get medical advice/attention.

# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

---

### Most important symptoms/effects

- Symptoms/effects : Excessive exposure may lead to burning sensation in the mouth and throat, salivation, nausea, abdominal pain, vomiting, and diarrhoea
- Symptoms/effects after eye contact : Eye irritation
- Symptoms/effects after inhalation : May cause irritation to the respiratory tract
- Symptoms/effects after skin contact : May cause moderate irritation, including burning sensation, tearing, redness or swelling

### Advices for first aid responders

No additional information available

### Notes for the doctor

Other medical advice or treatment : Treat symptomatically

## SECTION 5 Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media : Water spray  
Dry powder  
Foam
- Unsuitable extinguishing media : None known

### Specific hazards

- Fire hazard : None known
- Hazardous decomposition products in case of fire : Toxic fumes may be released
- Explosion hazard : None known

### Advice for firefighters and protective measures

- Firefighting instructions : No additional information available
- Protection during firefighting : Do not attempt to take action without suitable protective equipment  
Self-contained breathing apparatus  
Complete protective clothing

## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- Heat and ignition sources : Keep away from open flames, hot surfaces and sources of ignition
- General measures : No additional information available
- Personal Precautions, Protective Equipment and Emergency Procedures : No additional information available

### For non-emergency personnel

- Protective equipment : Wear suitable protective clothing
- Emergency procedures : Ventilate spillage area  
Avoid contact with skin, eyes and clothing

# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

---

### For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment  
For further information refer to section 8: "Exposure controls/personal protection"
- Emergency procedures : Provide adequate ventilation  
Evacuate area.  
Avoid inhalation of vapours

### Environmental precautions

Avoid release to the environment

### Methods and material for containment and cleaning up

- Methods for cleaning : No additional information available
- 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.

### Prevention measures for secondary accidents

- Prevention Measures for Secondary Accidents : No additional information available
- Other information : Dispose of materials or solid residues at an authorized site

## SECTION 7 Handling and storage

### Handling

- Precautions for safe handling : Ensure good ventilation of the work station  
Do not get in eyes, on skin, or on clothing.  
Wear personal protective equipment
- Hygiene measures : Wash contaminated clothing before reuse.  
Do not eat, drink or smoke when using this product.  
Always wash hands after handling the product
- Local and general ventilation : No additional information available

### Storage

- Storage conditions : Store in a well-ventilated place.  
Keep cool.
- Material used in packaging/containers : No additional information available
- Heat and ignition sources : Keep away from open flames, hot surfaces and sources of ignition
- Information on mixed storage : Store away from water (including sewage plant)
- Special rules on packaging : Keep container tightly closed

# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

### SECTION 8 Exposure controls / Personal protection equipment ►

#### Occupational exposure limits

No additional information available

#### Biological limit values

No additional information available

#### Monitoring methods

No additional information available

#### Appropriate engineering controls

Ensure good ventilation of the work station

#### Personal protective equipment

Personal protective equipment : Safety glasses  
Protective clothing  
Gloves

Environmental exposure controls : Avoid release to the environment.

Hand protection : Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves.	Butyl rubber.	6 (> 480 minutes).	>0.3		
Disposable gloves.	Nitrile rubber.	6 (> 480 minutes).	>0.1		

Eye protection : Safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



### SECTION 9 Physical and chemical properties

Physical state : Solid

Appearance : Paste

Colour : Black

Odour : Characteristic

pH : No data available

Melting point : No data available

Freezing point : Not applicable

Boiling point : Not applicable

# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

<b>Flash point</b>	: > 100°C (Polydimethylsiloxane)
<b>Auto-ignition temperature</b>	: Not applicable
<b>Decomposition temperature</b>	: No data available
<b>Flammability (solid, gas)</b>	: Non flammable.
<b>Vapour pressure</b>	: No data available
<b>Relative vapour density at 20 ° C</b>	: No data available
<b>Density</b>	: No data available
<b>Solubility</b>	: No data available
<b>Partition coefficient n-octanol/water (Log Pow)</b>	: No data available
<b>Viscosity, kinematic</b>	: Not applicable
<b>Explosive limits (vol %)</b>	: Not applicable
<b>Lower explosive limit (LEL)</b>	: No data available
<b>Upper explosive limit (UEL)</b>	: No data available
<b>Radioactive</b>	: No

## SECTION 10 Stability and reactivity

<b>Chemical stability</b>	: Stable under normal conditions
<b>Reactivity</b>	: The product is non-reactive under normal conditions of use, storage and transport
<b>Possibility of hazardous reactions</b>	: No dangerous reactions known under normal conditions of use
<b>Conditions to avoid</b>	: None under recommended storage and handling conditions (see section 7)
<b>Incompatible materials</b>	: Strong oxidizing agents
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced
<b>Other properties</b>	: No additional information available

## SECTION 11 Toxicological information ►

### Acute toxicity

Acute toxicity (oral)	: No data available
Acute toxicity (dermal)	: May be harmful in contact with skin.
Acute toxicity (inhalation)	: No data available

<b>TUBALL MATRIX 601</b>	
ATE CN (dermal)	2777.778 mg/kg bodyweight
<b>Polydimethylsiloxane</b>	
LD50 oral rat	> 5000 mg/kg

# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

### Polydimethylsiloxane

LD50 dermal rat	> 2008 mg/kg
ATE CN (dermal)	2500 mg/kg bodyweight

#### Skin corrosion/irritation

Skin corrosion/irritation : No data available

#### Serious eye damage/eye irritation

Serious eye damage/irritation : Causes serious eye irritation.

#### Respiratory or skin sensitisation

Respiratory or skin sensitisation : No data available

#### Germ cell mutagenicity

Germ cell mutagenicity : No data available

#### Carcinogenicity

Carcinogenicity : No data available

#### Reproductive toxicity

Reproductive toxicity : No data available

#### STOT - single exposure

STOT-single exposure : No data available

#### STOT - repeated exposure

STOT-repeated exposure : No data available

### Single wall carbon nanotubes

NOAEL (oral, rat, 90 days)	> 1000 mg/kg bodyweight/day - OECD 422
----------------------------	--

#### Aspiration hazard

Aspiration hazard : No data available

### TUBALL MATRIX 601

Viscosity, kinematic	Not applicable
----------------------	----------------

## SECTION 12 Ecological information

#### Ecotoxicity

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) : No data available

# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

Hazardous to the aquatic environment, long-term (chronic)  
: No data available  
No additional information available

### Persistence and degradability

#### Single wall carbon nanotubes

Not rapidly degradable

Yes

### Bioaccumulative potential

No additional information available

### Mobility in soil

No additional information available

### Other adverse effects

Classification procedure (Ozone) : No data available

## SECTION 13 Disposal considerations

### Waste treatment methods

: Disposal through controlled incineration or authorised waste dump.

### Contaminated container and packaging

: No additional information available

### Additional information

: Clean up even minor leaks or spills if possible without unnecessary risk.

### 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.

### Sewage disposal recommendations

: Prevent entry to sewers and public waters

### Regional legislation (waste)

: Dispose of this material and its container at hazardous or special waste collection point

## SECTION 14 Transport information

Overland transport (JT/T 617)	Transport by sea	Air transport
<b>UN number</b>		
Not regulated	Not regulated	Not regulated
<b>Proper shipping name</b>		
Not regulated	Not regulated	Not regulated
<b>Transport document description</b>		
Not regulated	Not regulated	Not regulated
<b>Transport hazard class(es)</b>		
Not regulated	Not regulated	Not regulated
Not regulated	Not regulated	Not regulated



# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

Overland transport (JT/T 617)	Transport by sea	Air transport
<b>Packing group</b>		
Not regulated	Not regulated	Not regulated
<b>Environmental hazards</b>		
Not regulated	Not regulated	Not regulated

### Special transport precautions

Special rules on packaging : Keep container tightly closed

Overland transport (JT/T 617)

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

## SECTION 15 Regulatory information ►

Regulation name	Specific information	
Regulations on the Safety Management of Hazardous Chemicals	Hazardous Chemicals List	Single-walled carbon nanotubes are not listed
	List of the first batch of critically regulated hazardous chemicals	Single-walled carbon nanotubes are not listed
Environmental management regulations for the first import of chemicals and the import and export of toxic chemicals set	List of Toxic Chemicals Strictly Restricted from Import and Export in China	Single-walled carbon nanotubes are not listed
Measures for the Environmental Management of New Chemical Substances	Inventory of Existing Chemical Substances in China (IECSC)	Single walled carbon nanotubes are listed with its element "Carbon" (CAS-No: 7440-44-0); Polydimethyl-siloxane- (CAS-No. 9016-00-6) included

## 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
WGK	Water Hazard Class

# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

---

### Abbreviations and acronyms

VOC	Volatile Organic Compounds
N.O.S.	Not Otherwise Specified
OEL	Occupational Exposure Limit
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
EC-No.	European Community number
EN	European Standard
IOELV	Indicative Occupational Exposure Limit Value
IARC	International Agency for Research on Cancer
TLM	Median Tolerance Limit
	Mass-based Dustiness Index

SDS CN

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.

# Safety Data Sheet

## TUBALL MATRIX 601

Compiled according to GB/T 16483-2008, GB/T 17519-2013

Issue date: 2018/05/21

Revision date: 2021/12/30

---

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable