

SECTION 1 Chemical product and company identification ►

Chemical name : TUBALL BATT H2O CMC

Details of the supplier

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

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
Industrial use as additive in metal and/or ceramic composites

SECTION 2 Hazards identification

Emergency overview

GHS hazard classification

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

Label elements

No data available

Physical and chemical hazards

No additional information available

Health hazards

No additional information available

Environmental hazards

No additional information available

Other hazards

No additional information available

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SECTION 3 Composition/information on ingredients ►

Product form : Mixture.

Ingredient(s)	Concentration or concentration ranges (w/w %)	CAS No.
Water	99 - 100	7732-18-5
Carboxymethyl cellulose	0.3 - 0.6	9004-32-4
Single wall carbon nanotubes*	0.2 - 0.4	7440-44-0

Comments : * Single wall carbon nanotubes TUBALL™.

SECTION 4 First-aid measures

Description of necessary 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.
- 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
- First-aid measures after ingestion : Rinse mouth out with water.
Do not induce vomiting.
Get medical attention

Most important symptoms/effects

No additional information available

Advices for first aid responders

No additional information available

Notes for the doctor

Other medical advice or treatment : No additional information available

SECTION 5 Fire-fighting measures

Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire
- Unsuitable extinguishing media : No additional information available

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Specific hazards

- Fire hazard : None known
- Hazardous decomposition products in case of fire : Carbon dioxide (CO₂)
Carbon monoxide

Advice for firefighters and protective measures

- Firefighting instructions : No additional information available
- Protection during firefighting : Full face mask
Positive pressure self-contained breathing apparatus (SCBA)

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

- 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 : Avoid contact with skin, eyes and clothing
Ensure adequate ventilation
Evacuate area.

For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye/face protection
In case of fire: Positive pressure self-contained breathing apparatus (SCBA)
- Emergency procedures : Provide adequate ventilation
Evacuate area.
Avoid contact with skin, eyes and clothing

Environmental precautions

- Do not allow to enter into surface water or drains
- Collect contaminated extinguishing water separately and must not enter the sewage system

Methods and material for containment and cleaning up

- Methods for cleaning : No additional information available
- For containment : Clean spills promptly
Ventilate affected area
Stop leak if safe to do so.

Prevention measures for secondary accidents

- Prevention Measures for Secondary Accidents : No additional information available

SECTION 7 Handling and storage

Handling

- Precautions for safe handling : Avoid contact with skin, eyes and clothing

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Hygiene measures : Wash contaminated clothing before reuse.
Local and general ventilation : No additional information available

Storage

Storage conditions : Store in dry, well-ventilated area
Store at ambient temperature
Keep container tightly closed.
Material used in packaging/containers : No additional information available
Incompatible products : Acids. Bases. Oxidizing agent.
Storage temperature : > 5 ° C
Special rules on packaging : Keep container tightly closed

SECTION 8 Exposure controls / Personal protection equipment ►

Occupational exposure limits

Single wall carbon nanotubes	
Japan - Occupational Exposure Limits	
Exposure limits (JSOH)	【Occupational exposure limits for dusts】 (Class 1) Respirable dust 0.5mg/m ³ Total dust 2mg/m ³

Biological limit values

No additional information available

Monitoring methods

No additional information available

Appropriate engineering controls

No additional information available

Personal protective equipment

Personal protective equipment : Protective goggles
Gloves
Protective clothing
Hand protection : Wear suitable gloves

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

Eye protection : Chemical goggles or safety glasses
Skin and body protection : Protective clothing (with elasticated cuffs and closed neck)
Respiratory protection : No respiratory protection needed under normal use conditions
Personal protective equipment symbol(s)

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SECTION 9 Physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Colour	: Black
Odour	: Odourless
pH	: No data available
Melting point	: 0 ° C (Water)
Freezing point	: No data available
Boiling point	: 100 ° C (Water)
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 ° C	: No data available
Density	: 1.001 g/cm ³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available
Radioactive	: No

SECTION 10 Stability and reactivity

Chemical stability	: Stable under normal conditions
Reactivity	: Stable under normal conditions
Possibility of hazardous reactions	: None known
Conditions to avoid	: UV sources. Protect from sunlight.
Incompatible materials	: Acids Bases Oxidizing agent
Hazardous decomposition products	: Carbon dioxide Carbon monoxide
Other properties	: No additional information available

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SECTION 11 Toxicological information

Acute toxicity

Acute toxicity (oral) : No data available
Acute toxicity (dermal) : No data available
Acute toxicity (inhalation) : No data available

Carboxymethyl cellulose	
LD50 oral rat	27000 mg/kg
LD50 dermal rabbit	> 5 g/kg
LC50 Inhalation - Rat (Dust/Mist)	> 5800 mg/l/4h
ATE CN (oral)	27000 mg/kg bodyweight

Skin corrosion/irritation

Skin corrosion/irritation : No data available

Serious eye damage/eye irritation

Serious eye damage/irritation : No data available

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

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

STOT-single exposure : No data available

STOT - repeated exposure

STOT-repeated exposure : No data available

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Single wall carbon nanotubes

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

Aspiration hazard : No data available

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Density	1.001 g/cm ³
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SECTION 12 Ecological information

Ecotoxicity

Hazardous to the aquatic environment, short-term (acute) : No data available

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

No additional information available

Persistence and degradability

Carboxymethyl cellulose

Persistence and degradability	Readily biodegradable
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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

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SECTION 14 Transport information

Overland transport (JT/T 617)	Transport by sea	Air transport
UN number		
Not applicable	Not regulated	Not regulated
Proper shipping name		
Not applicable	Not regulated	Not regulated
Transport document description		
Not applicable	Not regulated	Not regulated
Transport hazard class(es)		
Not applicable	Not regulated	Not regulated
Not applicable	Not regulated	Not regulated
Packing group		
Not applicable	Not regulated	Not regulated
Environmental hazards		
Not applicable	Not regulated	Not regulated

Special transport precautions

Special rules on packaging : Keep container tightly closed

Overland transport (JT/T 617)

Not applicable

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

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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); All other components are listed
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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
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

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.

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