

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

#### 1.1. Product identifier ►

Product form : Mixture  
Trade name : TUBALL BATT H<sub>2</sub>O 0.4% CMC

#### 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 : The modifier used for producing lithium-ion batteries, composites, and other materials

##### 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	OCSiAl PRIVATE LIMITED A504 Universal BusinessPark, Ansa Industrial Estate, Chandivali, Andheri (E) Mumbai 400072
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 3943 09:00-17:00; GMT+8 china@ocsial.com	T +91 22 4120 8615 09:00-17:00; GMT+5.5 india@ocsial.com

#### 1.4. Emergency telephone number

Europe:	USA:	Asia:	China	India:
+352 27 99 03 73 09.00-17.00; GMT+2	+1 415 906 5271 09.00-17.00; GMT-4	+82 32 260 0407 09.00-17.00; GMT+9	+852 3575 3943 09:00-17:00; GMT+8	+91 22 4120 8615 09:00-17:00; GMT+5.5

### 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]

Hazard pictograms (CLP) : Not classified  
Signal word (CLP) : Not classified  
Precautionary statements (CLP) : Not classified

#### 2.3. Other hazards

PBT: not yet assessed

vPvB: not yet assessed

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Water	(CAS No) 7732-18-5	99,0	Not classified
Carboxymethyl cellulose	(CAS No) 9004-32-4	0,6	Not classified
Single wall carbon nanotubes*	(EC no) 943-098-9 (REACH-no) 01-2120130006-75-0000	0,4	Eye Irrit. 2, H319

\* Single wall carbon nanotubes TUBALL™

# TUBALL BATT H<sub>2</sub>O 0.4% CMC

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 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. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. If irritation persists, obtain medical advice.

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

No additional information available

#### 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
- Hazardous decomposition products in case of fire : Not applicable

#### 5.3. Advice for firefighters

- Protective equipment for firefighters : No special fire safety measures required

### 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 clothes. Ensure adequate ventilation. Evacuate area.

##### 6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye/face protection.
- 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 fire extinguishing water separately. This must not be discharged into drains.

#### 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 : Collect in closed containers for disposal. Absorb remaining liquid with sand or inert absorbent and remove to safe place. 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 clothes
- 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 duration : 12 months.
- Storage conditions : Keep container tightly closed at temperature above +5 °C

#### 7.3. Specific end use(s)

After 6 months storage, pre-mixing is recommended using a high-speed mixer at 0.1-0.2 kWh per 1 kg of dispersion

# TUBALL BATT H<sub>2</sub>O 0.4% CMC

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Personal protective equipment : Gloves. Protective clothing.



- Hand protection : Wear suitable gloves tested to EN 374  
Suitable material: nitrile rubber (NBR > 0,35 mm)  
Unsuitable material: neoprene or latex  
After inspection in case of tears, gloves should be replaced
- Skin and body protection : Safety glasses with side-shields should be conform to EN 166  
Protective clothing should be conform to EN 14605  
Protective clothing: clothing with wrist covers or cuffs  
Protective shoes: S1P or S3. Disposable over-the-shoe booties may be used

### 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 (butyl acetate=1)	: No data available
Melting point	: 0 °C
Boiling point	: 100 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Relative vapour density at 20 °C	: No data available
Density	: 1.001 g/cm <sup>3</sup>
Log Pow	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data 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.

# TUBALL BATT H<sub>2</sub>O 0.4% CMC

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

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

No additional information available

#### 12.6. 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 to hazardous or special waste collection point.
Sewage disposal recommendations	: Prevent entry to sewers and public waters.

### SECTION 14: Transport information

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

#### 14.1. UN number

No dangerous good in sense of transport regulations

#### 14.2. UN proper shipping name

Not applicable

#### 14.3. Transport hazard class(es)

Not applicable

#### 14.4. Packing group

Not applicable

#### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

#### 14.6. Special precautions for user

##### 14.6.1. Overland transport

No additional information available

##### 14.6.2. Transport by sea

No additional information available

##### 14.6.3. Air transport

No additional information available

##### 14.6.4. Inland waterway transport

No additional information available

# TUBALL BATT H<sub>2</sub>O 0.4% CMC

## Safety Data Sheet

according to Regulation (EU) 2015/830

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

Not applicable

### 14.8. Other information

Transportation temperature not lower than +5 °C

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

CSA has not been established

## SECTION 16: Other information

Full text of H- and EUH-statements:

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

List of Abbreviations:

ADN	The 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	Chemical Abstracts Service
CLP	Classification, Labeling, Packaging
CSA	Chemical Safety Assessment
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
PBT	A substance that is persistent, bioaccumulative and toxic
RID	Regulation Concerning the International Transport of Dangerous Goods by Rail
vPvB	A substance that is very persistent and very bioaccumulative

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 the mentioned precautionary measures and to 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*