

1. Chemical product and company identification ►

1.1. Product identifier

Product form	: Mixture
Trade name	: TUBALL BATT H2O 0.2% TUBALL BATT H2O 0.4%
Product group	: Trade product

1.2. Recommended uses and restrictions

Use Categories

No data available

1.2.1. Recommended use

Industrial use as additive in polymers, resins and/or coatings.

1.2.2. Restrictions on use

No data available

1.3. Supplier information

유럽:	미국:	아시아:	중국:	인도:
OCSiAI Europe S.a.r.l. L-3364, Leudelange, 1, rue de la Poudrerie, Grand Duchy of Luxembourg	OCSiAI LLC 500 S Front St., Suite 860, Columbus, OH 43215, USA	OCSiAI Asia Pacific Co., Ltd. Office 208, Pilot Plant Bldg., Incheon Technopark 12 Gaetbeol-ro, Yeonsu-gu, Incheon, 406-840 Republic of Korea	OCSiAI 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
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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)
China (Mainland)	: **0532 8388 9090(English, Mandarin)

2. Hazards identification

2.1. Classification of the substance or mixture

No data available

2.2. Label elements

2.2.1. Hazard pictograms (GHS KR)

No labelling applicable

2.2.2. Signal word (GHS KR)

No labelling applicable

2.2.3. Hazard statements (GHS KR)

No labelling applicable

2.2.4. Precautionary statements (GHS KR)

No labelling applicable

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2.3. Hazards - Other hazards which do not result in classification - Hazard Risk

No data available

3. Composition/information on ingredients ►

Product form : Mixture

Substance name	Other Names	Product identifier number	Concentration (%)
Water	-	CAS-No.: 7732-18-5 KECI-No.: KE-35400	98.8 – 99.4
Single wall carbon nanotubes*	-	CAS-No.: 7782-42-5 KECI-No.: KE-18101	0.2 – 0.4
PVP (Polyvinyl pyrrolidone)	-	CAS-No.: 9003-39-8 KECI-No.: -	0.4 – 0.8

Comments : * Single wall carbon nanotubes TUBALL™.

4. First-aid measures

4.1. 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. First-aid measures after skin contact

Take off immediately all contaminated clothing.
Wash contaminated clothing before reuse.
Wash with plenty of soap and water.

4.3. First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing.
Get medical attention.

4.4. First-aid measures after ingestion

Rinse mouth out with water.
Do not induce vomiting.
Get medical attention.

4.5. Other medical advice or treatment

No data available

5. Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : Not applicable

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5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Full face mask. Positive pressure self-contained breathing apparatus (SCBA).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions and protective procedures

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

Clean spills promptly.
Ventilate affected area.
Stop leak if safe to do so.
Collect spillage.
Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel).
Collect in closed container and remove to a safe place for disposal by burning.

7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing.
Wash contaminated clothing before reuse.

7.2. Conditions for safe storage ►

Store in dry, well-ventilated area.
Store at ambient temperature.
Keep container tightly closed.
Acids.
Bases.
Oxidizing agent.
Storage temperature : > 5 °C

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8. Exposure controls/personal protection ►

8.1. Occupational Exposure Limits

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Water (7732-18-5)

PVP (Polyvinylpyrrolidone) (9003-39-8)

Single wall carbon nanotubes (7782-42-5)

No additional information available

8.2. Appropriate engineering controls

No data available

8.3. Personal protection

Personal protective equipment:

Protective goggles. Gloves. Protective clothing.

Hand protection:

Wear suitable gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.4		
Reusable gloves	Chloroprene rubber (CR)	6 (> 480 minutes)	0.5		
Reusable gloves	Butyl rubber	6 (> 480 minutes)	0.7		

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):



9. Physical and chemical properties

- a) Appearance : No data available
Physical state : Liquid.
Colour : Black.

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b) Odour	: Odourless.
c) Odour threshold	: No data available
d) pH	: No data available
e) Melting / freezing point	: 0 °C /
f) Initial boiling point and boiling range	: 100 °C
g) Flash point	: No data available
h) Evaporation rate	: No data available
i) Flammability (solid, gas)	: No data available
j) Upper / lower flammability or explosive limits	: No data available
k) Vapour pressure	: No data available
l) Solubility	: No data available
m) Vapour density	: No data available
n) Relative density	: No data available
o) Partition coefficient n-octanol/water	: No data available
p) Auto-ignition temperature	: No data available
q) Decomposition temperature	: No data available
r) Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
s) Molecular mass	: No data available
Other information	
Density	: 1.001 g/cm ³

10. Stability and reactivity

10.1. Chemical stability and Possibility of hazardous reactions

Stable under normal conditions.
Stable under normal conditions.
None known.

10.2. Conditions to avoid

None known.

10.3. Incompatible materials

Strong oxidizing agents.

10.4. Hazardous decomposition products

Carbon dioxide.
Carbon monoxide.

11. Toxicological information ►

11.1. Information on exposure routes

Oral	: Not classified
Skin and eyes contact	: Not classified
Inhalation	: Not classified

11.2. Health hazards

Acute toxicity (oral):
Not classified

Acute toxicity (dermal):
Not classified

Acute toxicity (inhalation):
Not classified

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PVP (Polyvinylpyrrolidone) (9003-39-8)

LD50 oral rat > 2000 mg/kg

LC50 Inhalation - Rat (Dust/Mist) > 5.2 mg/l/4h

Skin corrosion/irritation:

Not classified

Serious eye damage/irritation:

Not classified

Respiratory sensitization:

Not classified

Skin sensitization:

Not classified

Carcinogenicity:

Not classified

Mutagenicity:

Not classified

Reproductive toxicity:

Not classified

Single wall carbon nanotubes (7782-42-5)

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 (7782-42-5)

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

Aspiration hazard:

Not classified

12. Ecological information

12.1. Ecotoxicity

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

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

PVP (Polyvinylpyrrolidone) (9003-39-8)

LC50 fish - 96h > 10000 mg/l

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12.2. Persistence and degradability

PVP (Polyvinylpyrrolidone) (9003-39-8)

Persistence and degradability	Not readily biodegradable.
Biodegradation	< 10 % - 15 days - OECD 302B

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Other adverse effects

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

13. Disposal considerations

13.1. Disposal method

Dispose of this material and its container at hazardous or special waste collection point.
Dispose through controlled incineration or authorised waste dump.
Dispose of contents/container in accordance with licensed collector's sorting instructions.

13.2. Disposal precaution

Prevent entry to sewers and public waters.

14. Transport information

UN RTDG	ADR	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. UN proper shipping name			
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
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Marine pollutant			
Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available			

14.6. Special precautions for user

No data available

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15. Regulatory information ►

15.1. Occupational Safety and Health Act

Hazardous Substances Prohibited for Manufacturing	Not applicable
Hazardous Substances Requiring Permission	Not applicable
Threshold Limit Values Chemicals	Not applicable
Hazardous Substances Below Permissible Level	Not applicable
Hazardous Substances Subject to Working Environment Measurement	Not applicable
Hazardous Substances Subject to Workers Requiring Health Examination	Not applicable
Hazardous Substances Subject to Control	Not applicable

15.2. Chemicals Control Act

Toxic Chemicals	Not applicable
Prohibited Chemicals	Not applicable
Restricted Chemicals	Not applicable
Substance requiring preparation for accidents	Not applicable

15.3. ACT ON REGISTRATION, EVALUATION, ETC. OF CHEMICALS (K-REACH)

Korea Existing Chemicals Inventory (KECI)	KECI-No. : KE-35400. Water KECI-No. : KE-18101. Graphite -> Single wall carbon nanotubes. Listing of country or region list name (yes/no) * Korea Korea Inventory of Existing Chemicals (ECL) Yes **"Yes" indicates that all ingredients in this product comply with the inventory requirements of the country(s) Indicates that there is no exemption. 1-Ethenyl-2-pyrrolidinone homopolymer ; Poly(vinylpyrrolidone), Povidone
Priority Existing Chemical ('PEC') – subject to registration	Not applicable
Priority Control Substances (Korea)	Not applicable
CMR Substances (Korea)	Not applicable

15.4. Safety Control of Dangerous Substances Act

Safety Control of Dangerous Substances Act	Polyvinyl pyrrolidone
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15.5. Wastes Control Act

Wastes Control Act

15.6. Other Domestic and International Regulatory Information

Domestic

Persistent Organic Pollutants(POPs) Control Act	Not applicable
Ozone Depleting Substances(ODS)	Not applicable

International

EU Regulatory Information

EU Candidate list (SVHC)	Contains no substance on the REACH candidate list
EU authorization list (REACH Annex XIV)	Contains no REACH Annex XIV substances
EU restriction list (REACH Annex XVII)	Not applicable

US Regulatory Information

CERCLA Section 103 (40CFR302.4)	Not applicable
EPCRA Section 302 (40CFR355.30)	Not applicable
EPCRA Section 304 (40CFR355.40)	Not applicable
EPCRA Section 313 (40CFR372.65)	Not applicable

International agreements

No data available

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16. Other information

16.1. Data sources:	No data available
16.2. Issue date:	12/01/2021
16.3. Revision number and date:	2.0, 16/04/2021
16.4. Other information:	No data available
16.5. Indication of changes:	See bold triangle '►'

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.

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

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