

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Product form : Mixture
 Trade name : TUBALL MATRIX 209 beta

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 plasticizer is to be used for thermoset compounds to add electrical conductivity

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]

EUH-statements : EUH210 - Safety data sheet available on request.

2.3. Other hazards

No additional information available

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]
Fatty carboxylic acid esters derivatives	Trade Secret	95	Not classified
Single wall carbon nanotubes*	(CAS-No.) Not available (EC-No.) 943-098-9 (REACH-No.) 01-2120130006-75-0000	5	Eye Irrit. 2, H319

* Single wall carbon nanotubes TUBALL™

Full text of H-statements: see section 16

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SECTION 4: First aid measures

4.1. Description of 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.

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

Symptoms/effects after eye contact	: May cause eye irritation.
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4.3. Indication of any immediate medical attention and special treatment needed ►

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Powder, Alcohol-resistant foam, Water spray, Carbon dioxide (CO ₂).
Unsuitable extinguishing media	: None known.

5.2. Special hazards arising from the substance or mixture ►

Fire hazard	: Combustible.
Hazardous decomposition products in case of fire	: Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters ►

Protection during firefighting	: Full face mask. Positive pressure self-contained breathing apparatus (SCBA).
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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	: Ensure adequate ventilation. Evacuate area. Avoid contact with skin and eyes.

6.1.2. 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 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. Ventilate affected area. Stop leak if safe to do so.
Methods for cleaning up	: Clear up rapidly by scoop or vacuum. Collect in closed container and remove to a safe place for disposal by burning.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid contact with skin, eyes and clothing. Carry out operations in the open/under local exhaust/ventilation or with respiratory protection. Avoid breathing dust, fume. To prevent thermal burns avoid contact with hot product.
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	: Store in dry, well-ventilated area. Store at ambient temperature. Keep container tightly closed. Protect from sunlight. Protect from moisture.
Incompatible products	: Strong oxidizing agents.

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Maximum storage period : 12 months
Storage temperature : -40 / +40
Heat and ignition sources : Keep away from open flames, hot surfaces and sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters ►

Fatty carboxylic acid esters derivatives	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	42 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	235 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	70 mg/m ³
Long-term - systemic effects, dermal	25 mg/kg bodyweight/day
PNEC (Soil)	
PNEC soil	44.7 mg/kg dwt

8.2. Exposure controls ►

Personal protective equipment:

Gloves. Safety glasses. Protective clothing.

Hand protection:

Chemically resistant protective gloves. EN 374

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.4		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. Selection of respiratory protection must be based on the result of the risk assessment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties ►

Physical state : Solid
Appearance : Viscous. Paste.
Colour : Black.
Odour : Slight.
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available

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Freezing point	: No data available
Boiling point	: No data available
Flash point	: 224 °C (Fatty carboxylic acid esters derivatives)
Auto-ignition temperature	: 330 °C (Fatty carboxylic acid esters derivatives)
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	: Poorly soluble in water. Soluble in organic solvents.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: No data available

9.2. Other 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

Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products ►

Carbon dioxide. Carbon monoxide.

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

Fatty carboxylic acid esters derivatives

LD50 oral rat	> 5000 mg/kg - OECD 423
LD50 dermal rat	> 2000 mg/kg - OECD 402

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not available
Reproductive toxicity	: Not available
STOT-single exposure	: Not available
STOT-repeated exposure	: Not available
Aspiration hazard	: Not available

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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

Fatty carboxylic acid esters derivatives

LC50 fish - 96h	> 100 mg/l Brachydanio rerio (zebra-fish) - OECD 203 - ISO 7346 - 84/449/EEC
EC50 crustacea - 48h	> 100 mg/l Daphnia magna (Water flea) - OECD 202
EC50 algae - 72h	> 100 mg/l (Growth rate) Scenedesmus subspicatus - OECD 201
NOEC chronic crustacea - 21 days	≥ 0.021 mg/l Daphnia magna (Water flea) - OECD 211

12.2. Persistence and degradability ►

Fatty carboxylic acid esters derivatives

Persistence and degradability	Readily biodegradable.
Biodegradation	70 – 80 % - 28 days - OECD 301B - ISO 9439 - 92/69/EEC, C.4-C

12.3. Bioaccumulative potential ►

Fatty carboxylic acid esters derivatives

Bioconcentration factor (BCF REACH)	189 - 30 days - Brachydanio rerio (zebra-fish) - OECD 305E
Partition coefficient n-octanol/water (Log Kow)	10
Bioaccumulative potential	Does not significantly accumulate in organisms.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment ►

Component

Fatty carboxylic acid esters derivatives	This substance/mixture does not meet the PBT 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)	: Dispose of this material and its container at hazardous or special waste collection point.
Waste treatment methods	: Disposal through controlled incineration or authorised waste dump.
Sewage disposal recommendations	: Prevent entry to sewers and public waters.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

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14.4. Packing group

Not regulated

Not regulated

Not regulated

Not regulated

Not regulated

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 ►

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 1, Slightly 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

15.2. Chemical safety assessment ►

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

Fatty carboxylic acid esters derivatives

Single wall carbon nanotubes

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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
ATE	Acute Toxicity Estimate
BLV	Biological limit value
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
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
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

Full text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation.
EUH210	Safety data sheet available on request.

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) OCSIAI

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