

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

1.1. Product identifier

Product form : Mixture
Product name : TUBALL MATRIX 204
Type of product : Nanoform embedded in a matrix

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

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet ►

Europe:
OCSiAI Europe S.a.r.l.
L-3364, Leudelange,
1, rue de la Poudrerie,
Grand Duchy of
Luxembourg
T +352 27 99 03 73
09.00-17.00 GMT+2
europe@ocsial.com

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)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 2 H319
Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS07

GHS09

Signal word (CLP)

: Warning

Hazardous ingredients

: Triethylene glycol dimethacrylate

Hazard statements (CLP)

: H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P261 - Avoid breathing dust, fume.

P273 - Avoid release to the environment.

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

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

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

P391 - Collect spillage.

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2.3. Other hazards ►

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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] |
|-----------------------------------|--|-------|---|
| Triethylene glycol dimethacrylate | (CAS-No.) 109-16-0 (EC-No.) 203-652-6 (REACH-No.) 01-2119969287-21 | 80 | Skin Sens. 1B, H317 |
| Single wall carbon nanotubes* | (CAS-No.) Not assigned for EU-REACH (EC-No.) 943-098-9 (REACH-No.) 01-2120130006-75-0000 | 10 | Eye Irrit. 2, H319 |
| Polymer | Trade Secret | 5 – 7 | Not classified |
| Alkylolammonium salt | (CAS-No.) 398475-96-2 | 3 – 5 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) |

| *Single wall carbon nanotubes TUBALL™ | | |
|---|-----|--|
| Name of (set of) nanoform(s) | | Tuball™ - grades 1RW02 / 1RW03 are part of one set of nanoform |
| Value | | - |
| Number based particle size distribution | d10 | 1.2 - 1.45 nm |
| | d50 | 1.6 - 1.8 nm |
| | d90 | 1.9 - 2.2 nm |
| Shape and aspect ratio of particles | | Elongated tubes; length to diameter ratio 2000 – 10000:1 |
| Crystallinity | | Amorphous |
| Surface functionalisation / treatment | | No |
| Process | | Chemical vapor deposition (CVD) |
| Specific surface area | | 300 – 1500 m ² /g |
| Additional information | | G/D range ≥ 40 (RAMAN at 532 nm) |

* Single wall carbon nanotubes TUBALL™

Full text of H- and EUH-statements: see section 16

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 skin contact | : May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : Causes serious 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 (CO₂).
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Under fire conditions, hazardous fumes will be present.
Hazardous decomposition products in case of fire : Carbon dioxide. Carbon monoxide. Irritating vapours.

5.3. Advice for firefighters

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

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.

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 inhalation of vapours.

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 ►

For disposal of contaminated materials refer to section 13 : "Disposal considerations". For further information refer to section 8: "Exposure controls/personal protection".

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.
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, cool, well-ventilated area. Keep container tightly closed. Protect from sunlight.
Incompatible products : Oxidizing agent. Reducing agents.
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).

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Triethylene glycol dimethacrylate

DNEL/DMEL (Workers)

| | |
|--------------------------------------|---------------------------|
| Long-term - systemic effects, dermal | 13.9 mg/kg bodyweight/day |
|--------------------------------------|---------------------------|

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| | |
|--|---------------------------|
| Long-term - systemic effects, inhalation | 48.5 mg/m³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects, oral | 8.33 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 14.5 mg/m³ |
| Long-term - systemic effects, dermal | 8.33 mg/kg bodyweight/day |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0.164 mg/l |
| PNEC aqua (marine water) | 0.0164 mg/l |
| PNEC aqua (intermittent, freshwater) | 0.164 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 1.85 mg/kg dwt |
| PNEC sediment (marine water) | 0.185 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 0.274 mg/kg dwt |
| PNEC (STP) | |
| PNEC sewage treatment plant | 10 mg/l |

| | |
|---------------------------------------|---|
| Single wall carbon nanotubes | |
| DNEL/DMEL (Workers) | |
| Acute - systemic effects, dermal | No hazard identified |
| Acute - systemic effects, inhalation | Low hazard (no threshold identified) |
| Acute - local effects, dermal | No hazard identified |
| Acute - local effects, inhalation | Low hazard (no threshold identified) |
| Long-term - systemic effects, dermal | No hazard identified |
| Long-term - local effects, dermal | No hazard identified |
| Long-term - local effects, inhalation | Low hazard (no threshold identified) |
| DNEL/DMEL (General population) | |
| Acute - systemic effects, dermal | No hazard identified |
| Acute - systemic effects, inhalation | Low hazard (no threshold identified) |
| Acute - systemic effects, oral | No hazard identified |
| Acute - local effects, dermal | No hazard identified |
| Acute - local effects, inhalation | No hazard identified |
| Long-term - systemic effects, dermal | No hazard identified |
| Long-term - local effects, dermal | No hazard identified |
| Long-term - local effects, inhalation | No hazard identified |
| PNEC (Water) | |
| PNEC aqua (freshwater) | No hazard identified |
| PNEC aqua (marine water) | No hazard identified |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | No hazard identified |
| PNEC sediment (marine water) | No hazard identified |
| PNEC (Soil) | |
| PNEC soil | No hazard identified |
| PNEC (Oral) | |
| PNEC oral (secondary poisoning) | No potential to cause toxic effects if accumulated (in higher organisms) via the food chain |
| PNEC (STP) | |
| PNEC sewage treatment plant | No data available: testing technically not feasible |

8.2. Exposure controls ►

Appropriate engineering controls:

Provide local exhaust or general room ventilation.

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Personal protective equipment:

Gloves. Safety glasses. Protective clothing.

Hand protection:

Wear suitable gloves. EN 374

| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
|---------------------------------------|----------------------------|------------|----------------|-------------|----------|
| Reusable gloves, Disposable gloves | Chloroprene rubber (CR) | | >0.18 | | EN 374 |
| Disposable gloves, Reusable gloves | Butyl rubber | | >0.18 | | EN 374 |
| Disposable gloves, Reusable gloves | Neoprene rubber (HNBR) | | >0.18 | | 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 | : Flakes. Pasty. |
| Colour | : Black. |
| Odour | : Characteristic. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : > 150 °C (Methacrylic acid, diester with triethylene glycol) |
| Auto-ignition temperature | : 255 °C (Methacrylic acid, diester with triethylene glycol) |
| Decomposition temperature | : No data available |
| Flammability | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : Insoluble in water. |
| 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 |

Ingle wall carbon nanotubes

| | |
|----------------------------|----------------------|
| Particle size | See section 3.2 |
| Particle size distribution | See section 3.2 |
| Particle shape | See section 3.2 |
| Particle aspect ratio | See section 3.2 |
| Particle aggregation state | Bundles of nanotubes |

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| | |
|--------------------------------|---|
| Particle agglomeration state | Single wall carbon nanotubes are embedded in a matrix |
| Particle specific surface area | See section 3.2 |
| Particle dustiness | 1660 mg/kg (DIRM - Single wall carbon nanotubes) |

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

Oxidizing agent. Reducing agents.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Irritating vapours.

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. Not classified. Not classified. |

Triethylene glycol dimethacrylate (109-16-0)

| | |
|---------------|--------------|
| LD50 oral rat | > 2000 mg/kg |
|---------------|--------------|

Alkylolammonium salt

| | |
|---------------|--------------|
| LD50 oral rat | > 5000 mg/kg |
|---------------|--------------|

| | |
|-----------------------------------|--|
| Skin corrosion/irritation | : Not classified. |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitisation | : Not classified. May cause an allergic skin reaction. |
| Germ cell mutagenicity | : Not available |
| Carcinogenicity | : Not available |
| Reproductive toxicity | : Not available |

Single wall carbon nanotubes

| | |
|-----------------------------|---|
| NOAEL (animal/female, F0/P) | no adverse effects seen at highest dose tested > 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 available |
|----------------------|-----------------|

| | |
|------------------------|-----------------|
| STOT-repeated exposure | : Not available |
|------------------------|-----------------|

Triethylene glycol dimethacrylate (109-16-0)

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

Single wall carbon nanotubes

| | |
|----------------------------|---|
| NOAEL (oral, rat, 90 days) | no adverse effects seen at highest dose tested > 1000 mg/kg bodyweight/day - OECD 422 |
|----------------------------|---|

| | |
|-------------------|-----------------|
| 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) : Toxic to aquatic life with long lasting effects.

Triethylene glycol dimethacrylate (109-16-0)

| | |
|------------------|-----------------------|
| LC50 fish - 96h | 16.4 mg/l - OECD 203 |
| EC50 algae - 72h | > 100 mg/l - OECD 201 |

Alkylolammonium salt

| | |
|-------------------|---|
| LC50 fish - 96h | 8 mg/l Oncorhynchus mykiss (Rainbow trout) - OECD 203 |
| ErC50 algae - 72h | > 1 mg/l Pseudokirchneriella subcapitata - OECD 201 |

12.2. Persistence and degradability

Triethylene glycol dimethacrylate (109-16-0)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Readily biodegradable. |
|-------------------------------|------------------------|

Alkylolammonium salt

| | |
|-------------------------------|----------------------------|
| Persistence and degradability | Not readily biodegradable. |
|-------------------------------|----------------------------|

12.3. Bioaccumulative potential

Triethylene glycol dimethacrylate (109-16-0)

| | |
|---|----------------|
| Partition coefficient n-octanol/water (Log Pow) | 2.3 - OECD 117 |
|---|----------------|

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component

| | |
|------------------------------|---|
| 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. |
| 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. |
| Additional information | : Clean up even minor leaks or spills if possible without unnecessary risk. |
| European List of Waste (LoW) code | : 06 13 99 - wastes not otherwise specified |

SECTION 14: Transport information






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

| ADR | IMDG | IATA | ADN | RID |
|--|--|--|--|--|
| 14.1. UN number | | | | |
| UN 3077 | UN 3077 | UN 3077 | UN 3077 | UN 3077 |
| 14.2. UN proper shipping name | | | | |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : Alkylolammonium salt) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : Alkylolammonium salt) | Environmentally hazardous substance, solid, n.o.s. (CONTAINS : Alkylolammonium salt) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : Alkylolammonium salt) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : Alkylolammonium salt) |


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| Transport document description | | | | |
|---|--|--|--|--|
| UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : Alkylolammonium salt), 9, III, (-) | UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : Alkylolammonium salt), 9, III, MARINE POLLUTANT | UN 3077 Environmentally hazardous substance, solid, n.o.s. (CONTAINS : Alkylolammonium salt), 9, III | UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : Alkylolammonium salt), 9, III | UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : Alkylolammonium salt), 9, III |
| 14.3. Transport hazard class(es) | | | | |
| 9 | 9 | 9 | 9 | 9 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| III | III | III | III | III |
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment : Yes | Dangerous for the environment : Yes Marine pollutant : Yes | Dangerous for the environment : Yes | Dangerous for the environment : Yes | Dangerous for the environment : Yes |
| No supplementary information available | | | | |
| 14.6. Special precautions for user | | | | |

Overland transport

| | |
|---|---|
| Classification code (ADR) | : M7 |
| Special provisions (ADR) | : 274, 335, 375, 601 |
| Limited quantities (ADR) | : 5kg |
| Excepted quantities (ADR) | : E1 |
| Packing instructions (ADR) | : P002, IBC08, LP02, R001 |
| Special packing provisions (ADR) | : PP12, B3 |
| Mixed packing provisions (ADR) | : MP10 |
| Portable tank and bulk container instructions (ADR) | : T1, BK1, BK2, BK3 |
| Portable tank and bulk container special provisions (ADR) | : TP33 |
| Tank code (ADR) | : SGAV, LGBV |
| Vehicle for tank carriage | : AT |
| Transport category (ADR) | : 3 |
| Special provisions for carriage - Packages (ADR) | : V13 |
| Special provisions for carriage - Bulk (ADR) | : VC1, VC2 |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV13 |
| Hazard identification number (Kemler No.) | : 90 |
| Orange plates | :  |

Tunnel restriction code (ADR)

: -

Transport by sea

| | |
|-----------------------------------|---------------------------|
| Special provisions (IMDG) | : 274, 335, 966, 967, 969 |
| Limited quantities (IMDG) | : 5 kg |
| Excepted quantities (IMDG) | : E1 |
| Packing instructions (IMDG) | : LP02, P002 |
| Special packing provisions (IMDG) | : PP12 |
| IBC packing instructions (IMDG) | : IBC08 |
| IBC special provisions (IMDG) | : B3 |
| Tank instructions (IMDG) | : BK1, BK2, BK3, T1 |

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Tank special provisions (IMDG) : TP33
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-F
Stowage category (IMDG) : A
Stowage and handling (IMDG) : SW23

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y956
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 956
PCA max net quantity (IATA) : 400kg
CAO packing instructions (IATA) : 956
CAO max net quantity (IATA) : 400kg
Special provisions (IATA) : A97, A158, A179, A197
ERG code (IATA) : 9L

Inland waterway transport

Classification code (ADN) : M7
Special provisions (ADN) : 274, 335, 375, 601
Limited quantities (ADN) : 5 kg
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, A
Number of blue cones/lights (ADN) : 0
Additional requirements/Remarks (ADN) : * Only in the molten state. ** For carriage in bulk see also 7.1.4.1. *** Only in the case of transport in bulk.

Rail transport

Classification code (RID) : M7
Special provisions (RID) : 274, 335, 375, 601
Limited quantities (RID) : 5kg
Excepted quantities (RID) : E1
Packing instructions (RID) : P002, IBC08, LP02, R001
Special packing provisions (RID) : PP12, B3
Mixed packing provisions (RID) : MP10
Portable tank and bulk container instructions (RID) : T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAV, LGBV
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W13
Special provisions for carriage – Bulk (RID) : VC1, VC2
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW31
Colis express (express parcels) (RID) : CE11
Hazard identification number (RID) : 90

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

| The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006: | | |
|--|---|---|
| Reference code | Applicable on | Entry title or description |
| 3(b) | Triethylene glycol dimethacrylate ; Alkylolammonium salt | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10 |
| 3(c) | Alkylolammonium salt | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1 |

Contains no substance on the REACH candidate list

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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 2, Significantly 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

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – : None of the components are listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

Switzerland

Storage class (LK) : LK 11/13 - Solids

15.2. Chemical safety assessment

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

Triethylene glycol dimethacrylate

Single wall carbon nanotubes

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|---------|--|
| CAS-No. | Chemical Abstract Service number |
| EC50 | Median effective concentration |
| EC-No. | European Community number |
| EN | European Standard |
| DIRM | Mass-based Dustiness Index |
| 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 |
| PNEC | Predicted No-Effect Concentration |
| SDS | Safety Data Sheet |

Other information : None.

Full text of H- and EUH-statements:

| | |
|-------------------|---|
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| Skin Sens. 1B | Skin sensitisation, category 1B |
| H315 | Causes skin irritation. |

TUBALL MATRIX 204

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| | |
|------|---|
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |

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) OCSiAl

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