

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : TUBALL MATRIX 207

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Industrial use as additive in polymers, resins and/or coatings

1.3. Supplier

USA:
OCSiAl LLC
950 Taylor Station
Road
Suite W
Gahanna, OH 43230
T +1 415 906 5271
09.00-17.00 GMT-4
usa@ocsial.com

1.4. Emergency telephone number

USA:
+1 415 906 5271
09.00-17.00; GMT-4

SECTION 2: Hazard(s) identification


2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation, Category 2	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	Causes serious eye irritation.
Skin sensitisation, Category 1	May cause an allergic skin reaction.

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US)	:	
Signal word (GHS US)	:	Warning
Hazard statements (GHS US)	:	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.
Precautionary statements (GHS US)	:	Avoid breathing dust, fume, gas, mist, spray, vapours. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves, protective clothing, eye protection, face protection. If on skin: Wash with plenty of water.

TUBALL MATRIX 207

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see supplemental first aid instruction on this label).
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	CAS-No.: 68609-97-2	90	Skin Irrit. 2, H315 Skin Sens. 1, H317
Single wall carbon nanotubes*	CAS-No.: 7440-44-0	10	Eye Irrit. 2, H319

Comments : * Single wall carbon nanotubes TUBALL™

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Wash with plenty of soap and water. Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Rinse mouth out with water. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Causes skin irritation. Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Causes serious eye irritation. Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

TUBALL MATRIX 207

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Powder, Alcohol-resistant foam, Water spray, Carbon dioxide (CO₂).
Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable vapours can accumulate in head space of closed systems. Residue may be flammable and explosive.
Explosion hazard : May form flammable/explosive vapour-air mixture.
Hazardous decomposition products in case of fire : Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Positive pressure self-contained breathing apparatus (SCBA). Full face mask.

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 : Ventilate spillage area. Do not breathe dust, fume, gas, mist, spray, vapours. Avoid contact with skin and eyes. Evacuate area. Ensure adequate ventilation.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear suitable protective clothing, gloves and eye/face protection. In case of fire: Positive pressure self-contained breathing apparatus (SCBA). For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Provide adequate ventilation. Evacuate area. Avoid inhalation of vapours.

6.2. Environmental precautions

Avoid release to the environment. 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 : Mechanically recover the product. Clear up rapidly by scoop or vacuum. Collect in closed container and remove to a safe place for disposal by burning. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

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".

TUBALL MATRIX 207

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Carry out operations in the open/under local exhaust/ventilation or with respiratory protection. To prevent thermal burns avoid contact with hot product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, cool, well-ventilated area. Store locked up. Store at ambient temperature. Keep container tightly closed. Protect from sunlight.
- Incompatible products : Oxidizing agent.
- 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).
- Special rules on packaging : Keep only in original container. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses. Protective clothing.

Hand protection:				
The suitability for a specific workplace should be discussed with the producers of the protective gloves. Chemically resistant protective gloves.				
Type	Material	Permeation	Thickness (mm)	Penetration
Reusable gloves, Disposable gloves	Butyl rubber		>0.18	
Reusable gloves, Disposable gloves	Nitrile rubber (NBR)		>0.18	
Reusable gloves, Disposable gloves	Neoprene rubber (HNBR)		>0.18	
Eye protection:				
Emergency eye wash fountain with clean water. Chemical goggles or safety glasses.				
Respiratory protection:				
In case of inadequate ventilation wear respiratory protection. Selection of respiratory protection must be based on the result of the risk assessment				

TUBALL MATRIX 207

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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	: Slight
Odour threshold	: No data available
pH	: No data available
Melting point	: > 200 °C (Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.)
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: 142 °C (Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.)
Relative evaporation rate (butylacetate=1)	: No data available
Flammability	: Non flammable.
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
Auto-ignition temperature	: Not applicable
Decomposition temperature	: > 200 °C (Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.)
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive limits	: Not applicable
Explosive properties	: No data available
Oxidising properties	: 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.

TUBALL MATRIX 207

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.5. Incompatible materials

Oxidizing agent.

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

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (68609-97-2)

LD50 oral rat	> 26.8 g/kg
LD50 dermal rabbit	> 4000 nl/kg
LC50 Inhalation - Rat	> 0.15 mg/l - 7 Hours

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

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 classified.
STOT-repeated exposure : Not classified

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (68609-97-2)

LOAEL (dermal, rat/rabbit, 90 days)	10 mg/kg bodyweight/day
NOAEL (dermal, rat/rabbit, 90 days)	1 mg/kg bodyweight/day

Single wall carbon nanotubes

NOAEL (oral, rat, 90 days)	no adverse effects seen at highest dose tested> 1000 mg/kg bodyweight/day - OECD 422
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Aspiration hazard : Not classified
Viscosity, kinematic : Not applicable
Symptoms/effects after skin contact : Causes skin irritation. Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Causes serious eye irritation. Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (68609-97-2)

LC50 fish - 96h	> 100 mg/l Oncorhynchus mykiss (Rainbow trout) - OECD 203
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TUBALL MATRIX 207

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (68609-97-2)

EC50 crustacea - 48h	7.2 mg/l Daphnia magna (Water flea) - OECD 202
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12.2. Persistence and degradability

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (68609-97-2)

Persistence and degradability	Readily biodegradable.
Biodegradation	87 % - 28 days - OECD 301F

12.3. Bioaccumulative potential

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (68609-97-2)

Partition coefficient n-octanol/water (Log Pow)	> 3.77 (20 °C) - OECD 107
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal 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. Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Prevent entry to sewers and public waters.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. 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
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

TUBALL MATRIX 207

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	CAS-No. 68609-97-2	90%
Single wall carbon nanotubes	CAS-No. 7440-44-0	10%

Single wall carbon nanotubes

This product is subject to the Significant New Use Rules (SNUR) published by the United States Environmental Protection Agency on December 5, 2019 in Federal Register Vol. 84, No. 234.

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR § 372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (68609-97-2)

EPA TSCA Regulatory Flag	TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule.
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15.2. International regulations

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

TUBALL MATRIX 207

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

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 US (GHS HazCom 2012) OCSIAL

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.