TUBALL MATRIX 301

Safety Data Sheet

according to JIS Z 7253 : 2019

Issue date: 2018/09/11

Revision date: 2022/03/18

Version: 6.2

1. Chemical product and company identification

Product name	:	TUBALL MATRIX 301
Type of product	:	Nanoform embedded in a matrix
Product group	:	Trade product

Company information

Supplier

東京都千代田区内神田 1-11-13

楠本化成株式会社

Japan:

東京都千代田区内神田

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Emergency phone number

EMEA : +44 1865 407333 (English) (Carechem 24)

East/South East Asia : +65 3158 1074 (English, Hindi, Japanese, Korean, Malay, Mandarin) (Carechem 24)

2. Hazards identification

GHS classification

Physical hazards	Explosives	classification not possible
	Flammable gases	No classification
	Aerosol	classification not possible
	Oxidizing gases	No classification
	Gases under pressure	No classification
	Flammable liquids	No classification
	Flammable solids	classification not possible
	Self-reactive substances and mixtures	classification not possible
	Pyrophoric liquids	No classification
	Pyrophoric solids	classification not possible
	Self-heating substances and mixtures	classification not possible
	Substances and mixtures which in contact with water emit flammable gases	classification not possible
	Oxidizing liquids	No classification
	Oxidizing solids	classification not possible
	Organic peroxides	classification not possible
	Corrosive to metals	classification not possible
	Desensitized explosives	classification not possible
Health hazards	Acute toxicity (oral)	classification not possible
	Acute toxicity (dermal)	classification not possible

	Acute toxicity (inhalation:gas)	classification not possible
	Acute toxicity (inhalation:vapours)	No classification
	Acute toxicity (inhalation:dust/mist)	classification not possible
	Skin corrosion/irritation	classification not possible
	Serious eye damage/eye irritation	Category 2
	Respiratory sensitization	classification not possible
	Skin sensitization	classification not possible
	Germ cell mutagenicity	classification not possible
	Carcinogenicity	classification not possible
	Reproductive toxicity	classification not possible
	Specific target organ toxicity (single exposure)	classification not possible
	Specific target organ toxicity (repeated exposure)	classification not possible
	Aspiration hazard	classification not possible
Environmental hazards	Hazardous to the aquatic environment, short-term (acute)	Category 1
	Hazardous to the aquatic environment, long-term (chronic)	classification not possible
	Hazardous to the ozone layer	classification not possible

Hazard pictograms (GHS JP)

Signal word (GHS JP) : Warning

Hazard statements (GHS JP) : Causes serious eye irritation. (H319)
Very toxic to aquatic life. (H400)

Precautionary statements (GHS JP)

Prevention : Wash hands, forearms and face thoroughly after handling. (P264)
Avoid release to the environment. (P273)
Wear eye protection, face protection, protective clothing, protective gloves. (P280)

Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
If eye irritation persists: Get medical advice/attention. (P337+P313)
Collect spillage. (P391)

Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)

3. Composition/information on ingredients

Distinction of substance or mixture : Mixture

Generic name : TUBALL MATRIX 301

Name	Concentration (%)	Formula	Reference number in the gazette list		CAS-No.
			CSCL No.	ISHL No.	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	90	-	-	-	120313-48-6
Single wall carbon nanotubes*	10	C	-	-	N/A

Comments : * Single wall carbon nanotubes TUBALL™.

Judging by the carbon content of the carbon nanotubes (CNTs), carbon nanotubes do not fall under the new chemical substance inventory of the Chemical Substances Control Law.

4. First aid measures

First aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

Notes to physician

Other medical advice or treatment : Treat symptomatically.

5. Fire fighting measures

Suitable extinguishing media : Water spray, Dry powder, Foam

Unsuitable extinguishing media : No data available

Hazardous decomposition products in case of fire : Toxic fumes may be released

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

Self-contained breathing apparatus.

Complete protective clothing.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

For non-emergency personnel

Protective equipment : Wear suitable protective clothing.

Emergency procedures : Ventilate spillage area.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment.

For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Provide adequate ventilation.

Evacuate area.

Avoid inhalation of vapours.

Environmental precautions

Environmental precautions : Avoid release to the environment.

Methods and Equipment for Containment and Cleaning up

Methods for cleaning up	:	Mechanically recover the product.
Other information	:	Dispose of materials or solid residues at an authorized site.

7. Handling and storage

Handling

Technical measures	:	No data available
Precautions for safe handling	:	Ensure good ventilation of the work station. Wear personal protective equipment.
Prevents handling of incompatible substances or mixtures	:	No data available
Hygiene measures	:	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Storage ▸

Storage conditions	:	Store in a well-ventilated place. Keep cool.
Material used in packaging/containers	:	No data available
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 container tightly closed.
Storage temperature	:	-5/+40 ° C

8. Exposure controls / Personal protection equipment

Appropriate engineering controls : Ensure good ventilation of the work station

Protective equipment

Personal protective equipment : Gloves, Protective clothing, Safety glasses

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Hand protection : Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)	> 0.35		
Disposable gloves	Butyl rubber	3 (> 60 minutes)	> 0.7		

Eye protection : Safety glasses

Type	Field of application	Characteristics	Standard
Safety glasses		With side shields	

Skin and body protection : Wear suitable protective clothing

Personal protective equipment symbol(s)

Environmental exposure controls : Avoid release to the environment.

9. Physical and chemical properties ►

Physical state	:	Solid
Appearance	:	Flakes,Pasty
Colour	:	Black
Odour	:	Slight
pH	:	≈ 7 (Alcohols, C12-15-branched and linear, ethoxylated propoxylated)
pH solution	:	50 g/l (23° C)(Alcohols, C12-15-branched and linear, ethoxylated propoxylated)
Melting point	:	No data available
Freezing point	:	Not applicable
Boiling point	:	> 250 ° C (Alcohols, C12-15-branched and linear, ethoxylated propoxylated)
Flash point	:	≈ 190 ° C (Alcohols, C12-15-branched and linear, ethoxylated propoxylated)
Auto-ignition temperature	:	> 200 ° C (Alcohols, C12-15-branched and linear, ethoxylated propoxylated)
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	No data available
Relative gas density	:	No data available
Solubility	:	Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Explosive properties	:	Not explosive.
Explosive limits (vol %)	:	Not applicable
Oxidising properties	:	Non oxidizing
Viscosity, kinematic	:	Not applicable

10. Stability and reactivity

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	None under recommended storage and handling conditions (see section 7).
Incompatible materials	:	Strong oxidizing agents.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information ►

Acute toxicity (oral)	:	classification not possible
Acute toxicity (dermal)	:	classification not possible
Acute toxicity (inhalation)	:	No data available
Acute toxicity (inhalation)	:	classification not possible (gas) Not applicable (Vapour) classification not possible (dust, mist)
Skin corrosion/irritation	:	classification not possible

TUBALL MATRIX 301	
pH	≈ 7 (Alcohols, C12-15-branched and linear, ethoxylated propoxylated)

Serious eye damage/irritation : Causes serious eye irritation.

TUBALL MATRIX 301	
pH	≈ 7 (Alcohols, C12-15-branched and linear, ethoxylated propoxylated)

Respiratory sensitization : classification not possible
Skin sensitization : classification not possible
Germ cell mutagenicity : classification not possible
Carcinogenicity : classification not possible

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 - no adverse effects seen at highest dose tested on prenatal development (conceptus to birth) - OECD 422
NOAEL (animal, F1)	> 1000 mg/kg bw/day - no adverse effects seen at highest dose tested on postnatal development (pup) - OECD 422

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

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 classified

TUBALL MATRIX 301	
Viscosity, kinematic	Not applicable

12. Ecological information

Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : classification not possible

Persistence and degradability

TUBALL MATRIX 301	
Persistence and degradability	No data available

Bioaccumulative potential

TUBALL MATRIX 301	
Bioaccumulative potential	No data available

Mobility in soil

TUBALL MATRIX 301	
Mobility in soil	No data available

Hazardous to the ozone layer

Ozone : classification not possible

Other adverse effects : No additional information available

13. Disposal considerations

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.

Waste treatment methods : Disposal through controlled incineration or authorised waste dump.

Regional legislation (waste) : Dispose of this material and its container at hazardous or special waste collection point.

Sewage disposal recommendations : Prevent entry to sewers and public waters.

Additional information : Clean up even minor leaks or spills if possible without unnecessary risk.

14. Transport information

International Regulations

Overland transport(UN RTDG)

UN-No.(UN RTDG) : 3077

Proper Shipping Name (UN RTDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : Alcohols, C12-15-branched and linear, ethoxylated propoxylated)

Packing group (UN RTDG) : III

Transport hazard class(es) (UN RTDG) : 9

Danger labels (UN RTDG) : 9

Class (UN RTDG) : 9

Limited quantities (UN RTDG) : 5 kg

Excepted quantities (UN RTDG) : E1

Packing instruction (UN RTDG) : P002, IBC08, LP02

Special packing provisions (UN RTDG) : PP12, B3

Portable tank and bulk container special instructions (UN RTDG) : T1, BK2, BK3

Portable tank and bulk container special provisions (UN RTDG) : TP33

Regulations in Japan

Other information : No supplementary information available

15. Regulatory information

National law

Foreign Exchange and Foreign Trade Control Act : Export Trade Control Order, Appended Table 1, Para.16

Single walled carbon nanotubes are listed with its element “Carbon”; others are all listed

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

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.

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