

1. Chemical product and company identification ▶

Product name : TUBALL LATEX H20 (NSA)
 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:

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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	classification not possible
	Flammable solids	No classification
	Self-reactive substances and mixtures	classification not possible
	Pyrophoric liquids	classification not possible
	Pyrophoric solids	No classification
	Self-heating substances and mixtures	classification not possible
	Substances and mixtures which in contact with water emit flammable gases	classification not possible
	Oxidizing liquids	classification not possible
	Oxidizing solids	No classification
	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)	classification not possible
	Acute toxicity (inhalation:dust/mist)	classification not possible
	Skin corrosion/irritation	classification not possible
	Serious eye damage/eye irritation	classification not possible
	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)	classification not possible
	Hazardous to the aquatic environment, long-term (chronic)	classification not possible
	Hazardous to the ozone layer	classification not possible

Other hazards which do not result in classification

Other hazards which do not result in classification : None under normal conditions.

Additional hazards when processed : None known.

3. Composition/information on ingredients ►

Distinction of substance or mixture : Mixture

Generic name : TUBALL LATEX H2O (NSA)

Name	Concentration (%)	Formula	Reference number in the gazette list		CAS-No.
			CSCL No.	ISHL No.	
Water	95.75 - 98.8	H2O	-	-	7732-18-5
Sodium salt of polynaphthalene sulphonic acid	1 - 3.75	-	-	-	Trade secret
Single wall carbon nanotubes*	0.2 - 0.5	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 : Wash with plenty of soap and water.

contact	Take off immediately all contaminated clothing and wash it before reuse. Wash skin with plenty of 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. Get medical advice/attention.

Most Important Symptoms/Effects

Symptoms/effects	: No additional information available.
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Notes to physician

Other medical advice or treatment	: Treat symptomatically.
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5. Fire fighting measures

Suitable extinguishing media	: Not applicable, Water spray, Dry powder, Foam, Carbon dioxide
Unsuitable extinguishing media	: Not applicable
Fire hazard	: Not applicable.
Explosion hazard	: Not applicable.
Reactivity in case of fire	: Not applicable.
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.
Other information	: No additional information available.

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. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Evacuate area.

For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. Wear suitable protective clothing, gloves and eye/face protection. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Provide adequate ventilation. Evacuate area. Avoid contact with skin and eyes.

Environmental precautions

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
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enter the sewage system.

Methods and Equipment for Containment and Cleaning up

- For containment : Clean spills promptly.
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Ventilate affected area.
Stop leak if safe to do so.
- Methods for cleaning up : Take up liquid spill into absorbent material.
Absorb remaining liquid with sand or inert absorbent and remove to safe place.
Collect in closed container and remove to a safe place for disposal by burning.
Clean spills promptly.
- 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.
Avoid contact with skin, eyes and clothing.
- Prevents handling of incompatible substances or mixtures : No data available
- Hygiene measures : Do not eat, drink or smoke when using this product.
Wash contaminated clothing before reuse.
Always wash hands after handling the product.
- Additional hazards when processed : None known.

Storage ▶

- Storage conditions : Dispersion should be stored in an inert environment in a tightly closed container at a temperature above 5 ° C till + 50 ° C.
Recommended time of use opened container is 72 hours.
Store in a well-ventilated place.
Keep cool.
- Material used in packaging/containers : No data available
- Incompatible products : Strong oxidizing agents. Strong acids.
- Storage temperature : 5 - 50 ° C

8. Exposure controls / Personal protection equipment

Single wall carbon nanotubes (7440-44-0)

Japan – Occupational Exposure Limits

Exposure limits (JSOH)	【Occupational exposure limits for dusts】 (Class 1) Respirable dust 0.5mg/m3 Total dust 2mg/m3
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- Appropriate engineering controls : No additional information available, Ensure good ventilation of the work station
- Protective equipment**
- Personal protective equipment : Gloves, Protective clothing, Safety glasses
- Respiratory protection : In case of inadequate ventilation wear respiratory protection.
- Hand protection : Chemically resistant protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves Reusable gloves	Use neoprene or rubber gloves		> 0.18		

Eye protection : Chemical goggles or safety glasses, Safety glasses

Skin and body protection : Protective clothing (with elasticated cuffs and closed neck)

Personal protective equipment symbol(s)



Environmental exposure controls : Avoid release to the environment.

9. Physical and chemical properties

Physical state	: Liquid
Colour	: Black
Odour	: Odourless
pH	: 8.5 - 10
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Explosive limits (vol %)	: No data available
Viscosity, kinematic	: No data available
Additional information	: No additional information available.

10. Stability and reactivity

Reactivity	: Stable under normal conditions.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: None known.
Conditions to avoid	: None known.
Incompatible materials	: Strong oxidizing agents. Strong acids.
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) : classification not possible (gas)
 classification not possible (Vapour)
 classification not possible (dust, mist)

Sodium salt of polynaphthalene sulphonic acid	
LD50 oral rat	2000 - 5000 mg/kg

Skin corrosion/irritation : classification not possible

TUBALL LATEX H2O (NSA)	
pH	8.5 - 10

Serious eye damage/irritation : classification not possible

TUBALL LATEX H2O (NSA)	
pH	8.5 - 10

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

Single wall carbon nanotubes (7440-44-0)	
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-single exposure : classification not possible

STOT-repeated exposure : classification not possible

Single wall carbon nanotubes (7440-44-0)	
NOAEL (oral, rat, 90 days)	> 1000 mg/kg bodyweight/day - OECD 422

Aspiration hazard : classification not possible

Single wall carbon nanotubes (7440-44-0)	
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) : classification not possible

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

Sodium salt of polynaphthalene sulphonic acid	
LC50 fish - 96h	> 100 mg/l Brachydanio rerio (zebra-fish) - OECD 203

Persistence and degradability

TUBALL LATEX H2O (NSA)	
Persistence and degradability	No data available

Sodium salt of polynaphthalene sulphonic acid	
Persistence and degradability	Not readily biodegradable.

Sodium salt of polynaphthalene sulphonic acid	
Chemical oxygen demand (COD)	≈ 1420 mg O ₂ /g substance

Bioaccumulative potential

TUBALL LATEX H2O (NSA)	
Bioaccumulative potential	No data available

Sodium salt of polynaphthalene sulphonic acid	
Bioaccumulative potential	Bioaccumulation is not expected to occur.

Mobility in soil

TUBALL LATEX H2O (NSA)	
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	: Dispose of this material and its container at hazardous or special waste collection point. Dispose of contents/container in accordance with licensed collector' s sorting instructions.
Regional legislation (waste)	: Disposal must be done according to official regulations.
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)	: Not applicable
Proper Shipping Name (UN RTDG)	: Not applicable
Packing group (UN RTDG)	: Not applicable
Transport hazard class(es) (UN RTDG)	: Not applicable

Regulations in Japan

Other information	: No supplementary information available
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15. Regulatory information**National law**

Law Relating to Prevention of Marine Pollution and Maritime Disasters	: Harmless Substances (Enforcement Order, Art. Appended Table 1-2)
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

Other regulatory Information

Regulatory reference	: Not listed on the Canadian DSL (Domestic Substances List)
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16. Other information

Abbreviations and acronyms	
CAS-No.	Chemical Abstract Service number
EC-No.	European Community number
EN	European Standard
LC50	Median lethal concentration
NOAEL	No-Observed Adverse Effect Level
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
WGK	Water Hazard Class
OEL	Occupational Exposure Limit
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative
DNEL	Derived-No Effect Level
IOELV	Indicative Occupational Exposure Limit Value
LOAEL	Lowest Observed Adverse Effect Level
N. O. S.	Not Otherwise Specified
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
DMEL	Derived Minimal Effect level
IARC	International Agency for Research on Cancer
PBT	Persistent Bioaccumulative Toxic
IATA	International Air Transport Association
OECD	Organisation for Economic Co-operation and Development
NOEC	No-Observed Effect Concentration
NOAEC	No-Observed Adverse Effect Concentration
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose
EC50	Median effective concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

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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