

SAFETY DATA SHEET

Marine Bond & Seal 541

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

1.1. Product identifier

Trade name

Marine Bond & Seal 541

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

Sealing and bonding

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

Dana Lim A/S

Københavnsvej 220

DK-4600 Køge

Denmark

Tel: +45 56 64 00 70

Fax: +45 56 64 00 90

Contact person

Product Safety Department

E-mail

info@danalim.dk

SDS date

2021-08-30

SDS Version

4.0

Date of previous version

2020-10-22 (3.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

2.2. Label elements

▼ Hazard pictogram(s)

Not applicable

Signal word

Not applicable

▼ Hazard statement(s)

Harmful to aquatic life with long lasting effects. (H412)

Safety statement(s)

General

-

▼ Prevention

Avoid release to the environment. (P273)

▼ Response

-

Storage

-

▼ Disposal

Dispose of contents/container to an approved waste disposal plant. (P501)

Hazardous substances

No special

2.3. Other hazards

▼ Additional labelling

EUH208, Contains Trimethoxyvinylsilane. May produce an allergic reaction.

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

▼ 3.2 Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Trimethoxyvinylsilane	CAS No.: 2768-02-7 EC No.: 220-449-8 REACH: Index No.: 014-049-00-0	<1%	Flam. Liq. 3, H226 Skin Sens. 1B, H317 Acute Tox. 4, H332	
bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)...	CAS No.: 63843-89-0 EC No.: 264-513-3 REACH: 01-2119978231-37-XXXX Index No.:	<0.05%	Acute Tox. 4, H302 STOT RE 1, H372 Aquatic Chronic 1, H410 (M=10)	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit

[3] The chemical substance is subject to REACH restrictions, REACH annex XVII.

SECTION 4: First aid measures

▼ 4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

▼ Skin contact

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO

NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses and open eyes widely. Flush eyes with water or saline water(20-30°C) for at least 5 minutes. Seek medical assistance and continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

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

This product contains substances that may trigger an allergic reaction to predisposed persons.

4.3. Indication of any immediate medical attention and special treatment needed

No special

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

▼5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO₂).

Some metal oxides.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No specific requirements

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

▼6.3. Methods and material for containment and cleaning up

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

▼6.4. Reference to other sections

See section 13 on "Disposal considerations" in regard of handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

▼7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and

surrounding environment.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

▼ 7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

No specific requirements

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

▼ 8.1. Control parameters

—
Methanol (released in small quantities during vulcanisation)

Long term exposure limit (8 hours) (ppm): 200

Long term exposure limit (8 hours) (mg/m³): 266

Short term exposure limit (15 minutes) (ppm): 250

Short term exposure limit (15 minutes) (mg/m³): 333

Annotations:

Sk = Can be absorbed through the skin and lead to systemic toxicity.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
EH40/2005 Workplace exposure limits (Fourth Edition 2020)

DNEL

No data available

PNEC

No data available

▼ 8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

▼ General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

▼ Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.

▼ Respiratory Equipment

Work situation	Type	Class	Colour	Standards
If used in small and very badly ventilated rooms (not relevant if the room is well ventilated)	AX	-	Brown	EN14387

Skin protection

No specific requirements

▼ Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile	0.1	> 480	EN374-2, EN388



Eye protection

No specific requirements

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

▼ Physical state

Paste

Colour

White

▼ Odour / Odour threshold

Faint

pH

Testing not relevant or not possible due to nature of the product.

Density (g/cm³)

1,44-1,48 (20.00 °C)

▼ Kinematic viscosity

Testing not relevant or not possible due to nature of the product.

▼ Particle characteristics

Testing not relevant or not possible due to nature of the product.

Phase changes

▼ Melting point/Freezing point (°C)

Testing not relevant or not possible due to nature of the product.

Boiling point (°C)

Testing not relevant or not possible due to nature of the product.

Vapour pressure

Testing not relevant or not possible due to nature of the product.

▼ Relative vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Data on fire and explosion hazards

Flash point (°C)

Testing not relevant or not possible due to nature of the product.

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

▼ Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Insoluble

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

▼ 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

▼ Acute toxicity

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	7100 mg/kg ·
Other information	

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	3200 mg/kg ·
Other information	

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Rat
Route of exposure	Inhalation
Test	LD50
Result	16,8 mg/l/4h ·
Other information	

▼ Skin corrosion/irritation

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Rabbit
Duration	96 hours
Result	No adverse effect observed (Not irritating)
Other information	

▼ Serious eye damage/irritation

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Irritating)
Other information	

Respiratory sensitisation

Based on available data, the classification criteria are not met.

▼ Skin sensitisation

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Guinea pig
Result	No adverse effect observed (not sensitising)
Other information	

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

▼ Long term effects

No special

▼ Endocrine disrupting properties

No special

▼ Other information

No special

SECTION 12: Ecological information

▼ 12.1. Toxicity

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Fish

Compartment	
Duration	96 hours
Test	LC50
Result	191 mg/l ·
Other information	

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	169 mg/l ·
Other information	

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Daphnia
Compartment	
Duration	21 days
Test	NOEC
Result	25 mg/l ·
Other information	

Product/substance	Trimethoxyvinylsilane
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	NOEC
Result	25 mg/l ·
Other information	

▼ 12.2. Persistence and degradability

Product/substance	Trimethoxyvinylsilane
Biodegradable	No
Test method	
Result	

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

▼ 12.6. Endocrine disrupting properties

No special

▼ 12.7. Other adverse effects

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

▼ 13.1. Waste treatment methods

Avoid discharge to lakes, streams, sewers, etc.
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

Not applicable

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 - 14.4

Not dangerous goods according to ADR, IATA and IMDG.

ADR/RID

Not applicable

▼IMDG

Not applicable

MARINE POLLUTANT

No

▼IATA

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

▼ 14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

▼ Restrictions for application

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements

SEVESO - Categories / dangerous substances

Methanol (released in small quantities during vulcanisation)

Additional information

Not applicable

Sources

The Health and Safety at Work etc. Act 1974 Regulations 2013.
Control of Major Accident Hazards (COMAH) Regulations 2015.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

▼ Full text of H-phrases as mentioned in section 3

H226, Flammable liquid and vapour.

H302, Harmful if swallowed.

H317, May cause an allergic skin reaction.

H332, Harmful if inhaled.

H372, Causes damage to organs through prolonged or repeated exposure.

H410, Very toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit.

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVCB = Complex hydrocarbon substance

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

Not applicable

The safety data sheet is validated by

Product Safety Department

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this

safety data sheet cannot be used as a product specification.
Country-language: GB-en