

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1. Product identifier**
**Trade name**

977 DK HS Enamel T237

**Product no.**

977001

**REACH registration number**

None known

**Other means of identification**
**1.2. Relevant identified uses of the substance or mixture and uses advised against**
**Relevant identified uses of the substance or mixture**

NA

**Uses advised against**

-

The full text of any mentioned and identified use categories are given in section 16

**1.3. Details of the supplier of the safety data sheet**
**Company and address**

Beck & Jorgensen A/S  
 Rosenkaeret 25-29  
 DK2860 Soeborg, Denmark  
 Phone: +45 39 53 03 11  
 www.bj.dk

**Contact person**

Mikael Jensen

**E-mail**

miljo@bj.dk

**SDS date**

17-09-2013

**SDS Version**

1.1

**1.4. Emergency telephone number**

Use your national or local emergency number  
 See section 4 "First aid measures"

**SECTION 2: Hazards identification**
**2.1. Classification of the substance or mixture**

This product is not classified as dangerous according to 1999/45/EC.

See full text of H/R-phrases in section 2.2.

**DPD/DSD Classification**

-

-

**2.2. Label elements**
**Hazard pictogram(s)**

-

**Signal word**

-

**Hazard statement(s)**

-

**Identity of the substances primarily responsible for the major health hazards**

-

<b>Safety statement(s)</b>	General	-
	Prevention	Wear respiratory protection. (P284) Avoid breathing dust/fume/gas/mist/vapours/spray. (P261)
	Response	-

## Safety Data Sheet

Beck &amp; Jorgensen A/S

Storage -  
Disposal -

**2.3. Other hazards**

The product contains organic solvents. Prolonged and repeated exposure through inhalation may cause damage on the central nerve system and inner organs such as liver and kidneys.

**Additional labelling**

Safety data sheet available on request.

**Additional warnings**

-

**VOC**

VOC-MAX: 55 g/l, MAXIMUM VOC CONTENT (A (WB)): 130 g/l.

**SECTION 3: Composition/information on ingredients****3.1/3.2. Substances**

NAME:	2-butoxyethanol
IDENTIFICATION NOS.:	CAS-no: 111-76-2 EC-no: 203-905-0 REACH-no: 01-2119475108-36 Index-no: 603-014-00-0
CONTENT:	1-5%
DSD CLASSIFICATION:	Xn;R20/21/22 Xi;R36/38
CLP CLASSIFICATION:	Acute tox. 4, Skin Irrit. 2, Eye Irrit. 2 H302, H312, H315, H319, H332
NOTE:	S
NAME:	silan, dichlordimethyl-, reaktionsprodukter med silica
IDENTIFICATION NOS.:	CAS-no: 68611-44-9 EC-no: 271-893-4
CONTENT:	<0.1%
DSD CLASSIFICATION:	-
CLP CLASSIFICATION:	-

(\*) See full text of H/R-phrases in chapter 16. Occupational limits are listed in section 8, if these are available.

S = Organic solvent

**Other informations****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. If symptoms persists or in case of doubt always contact a physician. Never give anything by mouth to an unconscious person.

**Inhalation**

Move to fresh air and keep the person under observation. If discomfort persists get medical attention.

**Skin contact**

Remove contaminated clothing, shoes etc. Wash skin thoroughly with water and soap. Skin cleansing remedies may be used. DO NOT use solvent or thinner. Get medical attention if irritation or skin rash persists.

**Eye contact**

Remove contact lenses. Flush eyes immediately with plenty of water, until irritation cease and for at least 15 min.

**Ingestion**

Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, keep head low to prevent aspiration of vomit into lungs. Get medical attention. Aspiration of vomit into the lungs can cause pulmonary edema. Be aware that symptoms may be delayed up to 48 hours.

**Burns**

Rinse with water until the pain stops and continue for 30 minutes.

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

Neurotoxic effect: This product contains organic solvent, which may cause adverse effects on the central nerve system. Symptoms of neurotoxicity may include loss of appetite, headache, dizziness, tingeling sensation in the skin, sensitiveness to cold, cramps, difficulties concentrating, fatigues etc. Repeated

## Safety Data Sheet

Beck &amp; Jorgensen A/S

exposure may cause skin dryness or cracking. Persons with pre-existing skin disorders may be more susceptible to these effects.

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

Non specific.

**Information to medics**

Bring this safety data sheet.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Extinguish with alcohol resistant foam, powder, CO<sub>2</sub> or water fog. Do not use water jet, it may cause the fire to spread.

**5.2. Special hazards arising from the substance or mixture**

At elevated temperature and in case of fire hazardous decomposition products will be formed. These are: Carbon oxides. Fire will release hazardous/toxic fumes. Fire fighters must use full protective equipment. Cool containers with water spray. Do not allow water from the fire extinction to enter sewer systems or water courses.

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

No specific demands.

**6.2. Environmental precautions**

No specific demands.

**6.3. Methods and material for containment and cleaning up**

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. Clean with water or use appropriate cleaning agents. Solvents should be avoided.

**6.4. Reference to other sections**

See section 13 regarding handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

See section on 'Exposure controls/personal protection' for information on personal protection.

**7.2. Conditions for safe storage, including any incompatibilities**

Always store in the original container.

**Storage temperature**

NA

**7.3. Specific end use(s)**

This product should only be used for applications described in Section 1.2

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****OEL**

2-butoxyethanol (EH40/2005)

Long-term exposure limit (8-hour TWA reference period): 25 ppm | - mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): 50 ppm | - mg/m<sup>3</sup>

Comments: Sk BMGV (Bmgv = Biological Monitoring Guidance Value. Sk = Can be absorbed through skin.)

**DNEL / PNEC**

DNEL (2-butoxyethanol): 89 mg/kg - Exposure: Dermal - Duration: Short term – Systemic effects - Workers

## Safety Data Sheet

## Beck &amp; Jorgensen A/S

DNEL (2-butoxyethanol): 426 mg/m<sup>3</sup> - Exposure: Inhalation - Duration: Short term – Systemic effects - General population  
 DNEL (2-butoxyethanol): 75 mg/kg - Exposure: Dermal - Duration: Long term – Systemic effects - Workers  
 DNEL (2-butoxyethanol): 13,4 mg/Kg - Exposure: Oral - Duration: Short term – Systemic effects - General population  
 DNEL (2-butoxyethanol): 44,5 mg/kg - Exposure: Dermal - Duration: Short term – Systemic effects - General population  
 DNEL (2-butoxyethanol): 123 mg/m<sup>3</sup> - Exposure: Inhalation - Duration: Short term – Local effects - General population  
 DNEL (2-butoxyethanol): 38 mg/kg - Exposure: Dermal - Duration: Long term – Systemic effects - General population  
 DNEL (2-butoxyethanol): 3,2 mg/kg - Exposure: Oral - Duration: Long term – Systemic effects - General population  
 DNEL (2-butoxyethanol): 135 ppm - Exposure: Inhalation - Duration: Short term – Systemic effects - Workers  
 DNEL (2-butoxyethanol): 50 ppm - Exposure: Inhalation - Duration: Short term – Systemic effects - Workers  
 DNEL (2-butoxyethanol): 20 ppm - Exposure: Inhalation - Duration: Long term – Systemic effects - Workers  
 DNEL (2-butoxyethanol): 49 mg/m<sup>3</sup> - Exposure: Inhalation - Duration: Long term – Systemic effects - General population

PNEC (2-butoxyethanol): 0,88 mg/l - Exposure: Marine water  
 PNEC (2-butoxyethanol): 8,8 mg/l - Exposure: Freshwater  
 PNEC (2-butoxyethanol): 2,8 mg/kg - Exposure: Soil  
 PNEC (2-butoxyethanol): 463 mg/l - Exposure: Sewage Treatment Plant  
 PNEC (2-butoxyethanol): 34,6 mg/Kg - Exposure: Freshwater sediment  
 PNEC (2-butoxyethanol): 3,46 mg/kg - Exposure: Marine water sediment

**8.2. Exposure controls**

Compliance with the stated exposure limits values should be checked on a regular basis.

**General recommendations**

Do not smoke, eat or drink in working areas.

**Exposure scenarios**

If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

**Exposure limits**

Follow the procedures in "COSHH Essentials".

**Appropriate technical measures**

If general ventilation is insufficient, local exhaust must be provided. Ensure clear and visible signposting for eye cleanser and washing facilities.

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Always follow good industrial hygiene practice.

**Measures to avoid environmental exposure**

No specific demands.

**Individual protection measures, such as personal protective equipment****Generally**

Only CE-marked personal protection equipment should be used.

**Respiratory Equipment**

Recommended: In case of spray application: Use mask with particle filter S/SL, P2, White

**Skin protection**

No specific demands.

**Hand protection**

Recommended: Nitrile rubber. . Breakthrough time: > 30 minutes (Class 2)

**Eye protection**

Use face shield or safety glasses.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Form	Colour	Odour	pH	Viscosity	Density (g/cm <sup>3</sup> )
Liquid	NA	NA	8-8,5	-	1,04
<b>Phase changes</b>					
Melting point (°C)		Boiling point (°C)		Vapour pressure (mm Hg)	
-		1		-	
<b>Data on fire and explosion hazards</b>					
Flashpoint (°C)		Ignition (°C)		Self ignition (°C)	

## Safety Data Sheet

Beck &amp; Jorgensen A/S

-	Explosion limits (Vol %)	-	Oxidizing properties
-		-	
<b>Solubility</b>			
Solubility in water		n-octanol/water coefficient	
Soluble		-	
<b>9.2. Other information</b>			
Solubility in fat		Additional information	
-		N/A	

## 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.

**10.3. Possibility of hazardous reactions**

Non specific.

**10.4. Conditions to avoid**

Overpressure develops, when exposed to heating (e.g.. sunlight).

**10.5. Incompatible materials**

Strong acids, strong bases, strong oxidation agents and strong reduction 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 toxicological effects****Acute toxicity**

Substance	Species	Test	Route of exposure	Result
2-butoxyethanol	Rabbit	LD50	Dermal	210 mg/kg
2-butoxyethanol	Rabbit	LD50	Oral	300 mg/kg
2-butoxyethanol	Rat	LC50	Inhalation	2,21 mg/l/4h
2-butoxyethanol	Rat	LD50	Oral	> 200 -< 2000 mg/kg

**Skin corrosion/irritation**

No data.

**Serious eye damage/irritation**

No data.

**Respiratory or skin sensitisation**

No data.

**Germ cell mutagenicity**

No data.

**Carcinogenicity**

No data.

**Reproductive toxicity**

No data.

**STOT-single exposure**

No data.

**STOT-repeated exposure**

No data.

**Aspiration hazard**

No data.

**Long term effects**

Neurotoxic effect: This product contains organic solvent, which may cause adverse effects on the central nerve system. Symptoms of neurotoxicity may include loss of appetite, headache, dizziness, tingeling sensation in the skin, sensitiveness to cold, cramps, difficulties concentrating, fatigues etc. Repeated exposure may cause skin dryness or cracking. Persons with pre-existing skin disorders may be more susceptible to these effects.

## SECTION 12: Ecological information

**12.1. Toxicity**

Substance	Species	Test	Test duration	Result
2-butoxyethanol	Fish	LC50	96 h	820 - 1490 mg/l
2-butoxyethanol	Daphnia	EC50	48 h	835 - 1550 mg/l
2-butoxyethanol	Algae	IC50	72 h	1840 mg/l

**12.2. Persistence and degradability**

Substance	Biodegradability	Test	Result
2-butoxyethanol	Yes	Modified MITI Test	88% after 28 dage

**12.3. Bioaccumulative potential**

Substance	Potential bioaccumulation	LogPow	BFC
2-butoxyethanol	No	0,8	2,5

**12.4. Mobility in soil**

2-butoxyethanol: Log Koc= 0,71192, Calculated from LogPow (High mobility potential. ).

**12.5. Results of PBT and vPvB assessment**

No data available

**12.6. Other adverse effects**

Non specific.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

XXX

**Waste**

EWC code  
08 01 11

**Specific labelling**

-

**Contaminated packing**

Empty containers containing residues must be disposed of in the same way as the product.

## SECTION 14: Transport information

Non dangerous goods, referring to ADR and IMDG.

**14.1 – 14.4**

ADR/RID	14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)	14.4. Packing group	Notes
IMDG	UN-no.	Proper Shipping Name	Class	PG*	EmS MP** Hazardous constituent

**14.5. Environmental hazards**

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**14.6. Special precautions for user**

-

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

No data available

(\*) Packing group

(\*\*) Marine pollutant

## SECTION 15: Regulatory information

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

Persons under 18 years of age are not allowed to work with this product according to Council Directive

## Safety Data Sheet

Beck &amp; Jørgensen A/S

94/33/EC.

**Demands for specific education**

-

**Additional information**

-

**15.2. Chemical safety assessment**

No

**SECTION 16: Other information****Sources**

EC regulation 1907/2006 (REACH)

Directive 2000/532/EC

EC Regulation 1272/2008 (CLP)

**Full text of H/R-phrases as mentioned in section 3**

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

R36/38 - Irritating to eyes and skin.

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

**The full text of identified uses as mentioned in section 1****Other symbols mentioned in section 2**

-

**Other**

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.

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.

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

**The safety data sheet is validated by**

Mikael Jensen

**Date of last essential change  
(First cipher in SDS version)**

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**Date of last minor change  
(Last cipher in SDS version)**

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