Safety Data Sheet according to (EC) No 1907/2006

sds no. : 352582
V002.3

Terostat 8597 HMLC N 310ML DK I

Revision: 15.10.2012
printing date: 05.12.2012

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

1.1. Product identifier
Terostat 8597 HMLC N 310ML DK I

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Seam sealant

1.3. Details of the supplier of the safety data sheet
Henkel Ireland
Operations and Research Limited
Tallaght Business Park
Dublin 24

Ireland

Phone: +353 (14046444)
Fax-no.: +353 (14519926)

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):
No data available.

Classification (DPD):
Sensitizing
R42 May cause sensitization by inhalation.

2.2. Label elements

Label elements (CLP):
No data available.

Label elements (DPD):

Xn - Harmful

Risk phrases:
R42 May cause sensitization by inhalation.

Safety phrases:
S23 Do not breathe vapour.
S28 After contact with skin, wash immediately with plenty of water.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S51 Use only in well-ventilated areas.

Additional labeling:
Contains isocyanates. See information supplied by the manufacturer.

Contains:
4,4'- methylenediphenyl diisocyanate

2.3. Other hazards
Persons suffering from allergic reactions to isocyanates should avoid contact with the product.

SECTION 3: Composition/information on ingredients

General chemical description:
Sealant
Base substances of preparation:
4,4'-Methylenediphenyl diisocyanate (MDI)

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
4,4'- methylenediphenyl diisocyanate 101-68-8	202-966-0 01-2119457014-47	< 1 %	Carcinogenicity 2 H351 Acute toxicity 4; Inhalation H332 Specific target organ toxicity - repeated exposure 2 H373 Serious eye irritation 2 H319 Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315 Respiratory sensitizer 1 H334 Skin sensitizer 1 H317
Oxydipropyl dibenzoate 27138-31-4	248-258-5	< 2 %	Chronic hazards to the aquatic environment 2 H411

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
4,4'- methylenediphenyl diisocyanate 101-68-8	202-966-0 01-2119457014-47	< 1 %	Xi - Irritant; R36/37/38 R42/43 carcinogenic, category 3; R40 Xn - Harmful; R20, R48/20
Oxydipropyl dibenzoate 27138-31-4	248-258-5	< 2 %	N - Dangerous for the environment; R51/53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:
Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.
Seek medical advice immediately and show this container or label.

4.2. Most important symptoms and effects, both acute and delayed
May cause sensitization by inhalation.

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:
High pressure waterjet

5.2. Special hazards arising from the substance or mixture
In case of fire toxic gases can be released.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear protective equipment.
Avoid contact with skin and eyes.
Keep unprotected persons away.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove mechanically.
Dispose of contaminated material as waste according to Chapter 13.

6.4. Reference to other sections

See advice in chapter 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures:
Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.
Store in a cool, dry place.
Temperatures between + 5 °C and + 35 °C

7.3. Specific end use(s)

Seam sealant

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Valid for
Great Britain

Ingredient	ppm	mg/m³	Type	Category	Remarks
ISOCYANATES, ALL (AS -NCO) 101-68-8		0,07	Short Term Exposure Limit (STEL):		EH40 WEL
ISOCYANATES, ALL (AS -NCO) 101-68-8		0,02	Time Weighted Average (TWA):		EH40 WEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (freshwater)					> 1 mg/L	
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (marine water)					> 0,1 mg/L	
4,4'- methylenediphenyl diisocyanate 101-68-8	soil				> 1 mg/kg		
4,4'- methylenediphenyl diisocyanate 101-68-8	STP					> 1 mg/L	
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (intermittent releases)					10 mg/L	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
4,4'- methylenediphenyl diisocyanate 101-68-8	worker	dermal	Acute/short term exposure - systemic effects		50 mg/kg bw/day	
4,4'- methylenediphenyl diisocyanate 101-68-8	worker	inhalation	Acute/short term exposure - systemic effects		0,1 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	worker	dermal	Acute/short term exposure - local effects		28,7 mg/cm2	
4,4'- methylenediphenyl diisocyanate 101-68-8	worker	inhalation	Acute/short term exposure - local effects		0,1 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	worker	inhalation	Long term exposure - systemic effects		0,05 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	worker	inhalation	Long term exposure - local effects		0,05 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	general population	dermal	Acute/short term exposure - systemic effects		25 mg/kg bw/day	
4,4'- methylenediphenyl diisocyanate 101-68-8	general population	inhalation	Acute/short term exposure - systemic effects		0,05 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	general population	oral	Acute/short term exposure - systemic effects		20 mg/kg bw/day	
4,4'- methylenediphenyl diisocyanate 101-68-8	general population	dermal	Acute/short term exposure - local effects		17,2 mg/cm2	
4,4'- methylenediphenyl diisocyanate 101-68-8	general population	inhalation	Acute/short term exposure - local effects		0,05 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	general population	inhalation	Long term exposure - systemic effects		0,025 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	general population	inhalation	Long term exposure - local effects		0,025 mg/m3	

Biological Exposure Indices:

8.2. Exposure controls:

Engineering controls:
Use only in well ventilated areas.

Respiratory protection:
Suitable breathing mask when there is inadequate ventilation.

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Goggles which can be tightly sealed.

Skin protection:
Protective clothing that covers arms and legs.
Wear protective equipment.

Advices to personal protection equipment:
Use only personal protection that's CE-labelled according to the regulation no. 819 of 19 August 1994.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	paste pasty Black
Odor	characteristic
pH	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	No flash point up to 100 °C
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density (20 °C (68 °F))	1,25 g/cm3
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Insoluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
Reaction with water, alcohols, amines.
Reacts with water: Pressure built up in closed vessel (CO2).

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
Humidity

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

At higher temperatures isocyanate may be released.
Carbon dioxide is generated under contact with moisture, leading to pressure in the cans. Danger of cans bursting!

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Sensitizing:

May cause sensitization by inhalation.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	LD50 LC50	> 2.000 mg/kg > 2,24 mg/l	oral inhalation		rat rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Oxydipropyl dibenzoate 27138-31-4	LD50 LC50 LD50	3.914 mg/kg > 200 mg/l > 2.000 mg/kg	oral inhalation dermal	4 h	rat rat rat	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Oxydipropyl dibenzoate 27138-31-4	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
4,4'- methylenediphenyl diisocyanate 101-68-8	sensitising		guinea pig	
Oxydipropyl dibenzoate 27138-31-4	not sensitising		guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		EU Method B.13/14 (Mutagenicity)
Oxydipropyl dibenzoate 27138-31-4	negative negative negative	in vitro mammalian chromosome aberration test bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay	with and without with and without with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Oxydipropyl dibenzoate 27138-31-4	NOAEL=> 1000 mg/kg	oral: feed	90 days daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

SECTION 12: Ecological information

General ecological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.
Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	LC0	> 3.000 mg/l	Fish	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	EC50	129,7 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	EC50	> 1.640 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Oxydipropyl dibenzoate 27138-31-4	LC50	3,7 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Oxydipropyl dibenzoate 27138-31-4	EC50	19,3 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Oxydipropyl dibenzoate 27138-31-4	EC50	15 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method

4,4'- methylenediphenyl diisocyanate 101-68-8		aerobic	0 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Oxydipropyl dibenzoate 27138-31-4	readily biodegradable	aerobic	87 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
4,4'- methylenediphenyl diisocyanate 101-68-8		92	28 d	Cyprinus carpio		OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test)
4,4'- methylenediphenyl diisocyanate 101-68-8	5,22					
Oxydipropyl dibenzoate 27138-31-4	3,9					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

The valid EEC waste code numbers are not product-related but are largely source-related. These can be requested from the manufacturer.

In consultation with the responsible local authority, must be subjected to special treatment.

SECTION 14: Transport information

General information:

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

SECTION 15: Regulatory information

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

VOC content (VOCV 814.018 VOC regulation CH) 0 %

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R40 Limited evidence of a carcinogenic effect.
R42/43 May cause sensitization by inhalation and skin contact.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and it's subsequent amendments, and Commission Directive 1999/45/EC.