



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

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LOCTITE ABLESTIK QMI536HT known as Hysol
QMI536HT(7306), (12.5g),

SDS No. : 229507
V005.1

Revision: 29.05.2015

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Replaces version from: 01.10.2014

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

1.1. Product identifier

LOCTITE ABLESTIK QMI536HT known as Hysol QMI536HT(7306), (12.5g),

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

Intended use:

Die attach adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000

Fax-no.: +44 1442 278071

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):

Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word:

Warning

Hazard statement: H315 Causes skin irritation.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement: P273 Avoid release to the environment.
Prevention

Precautionary statement: P302+P352 IF ON SKIN: Wash with plenty of water.
Response P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

None if used properly.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

Polyamino-bis-maleimide resin

Base substances of preparation:

polymers

Bismaleimide resin

Filler

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Dicyclopentenylxyethyl Methacrylate. 68586-19-6	271-608-3	>= 10- < 20 %	Skin Irrit. 2; Dermal H315 Eye Irrit. 2 H319 Acute Tox. 4; Inhalation H332 STOT SE 3; Inhalation H335 Aquatic Chronic 2 H411
Boron oxide (B2O3) 1303-86-2	215-125-8 01-2119486655-24	>= 1- < 3,1 %	Repr. 1B H360FD ===== EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC)
[3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	219-784-2 01-2119513212-58	>= 1- < 3 %	Eye Dam. 1 H318 Aquatic Chronic 3 H412
2,5-Dimethyl-2,5-di(2- ethylhexanoylperoxy)-hexane 13052-09-0	235-935-5	>= 1- < 3 %	Org. Perox. C H242

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.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

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:

Foam, extinguishing powder, carbon dioxide.

Fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

Danger of decomposition if exposed to heat.

See section 10.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

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.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

For small spills wipe up with paper towel and place in container for disposal.

Dispose of contaminated material as waste according to Section 13.

Ensure adequate ventilation.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.
Do not spray onto flames or red-hot objects.
Ensure good ventilation/suction at the workplace.
Extract when the product is heated.
Wash hands before breaks and immediately after handling the product.
See advice in section 8

Hygiene measures:

Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container.
Store in a cool, dry place.
Ensure that storage and workrooms are adequately ventilated.
Must be stored in a room with spill collection facilities.
Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Die attach adhesive

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

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Diboron trioxide 1303-86-2 [DIBORON TRIOXIDE]		10	Time Weighted Average (TWA):		EH40 WEL
Diboron trioxide 1303-86-2 [DIBORON TRIOXIDE]		20	Short Term Exposure Limit (STEL):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	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	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	aqua (freshwater)					1 mg/L	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	aqua (marine water)					0,1 mg/L	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	aqua (intermittent releases)					1 mg/L	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	soil				0,13 mg/kg		
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	STP					10 mg/L	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	Dermal	Acute/short term exposure - systemic effects		21 mg/kg bw/day	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	Inhalation	Acute/short term exposure - systemic effects		147 mg/m3	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	Dermal	Long term exposure - systemic effects		21 mg/kg bw/day	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	Inhalation	Long term exposure - systemic effects		147 mg/m3	

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A

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.
and/or
protective shield

Skin protection:
Wear protective equipment.
Suitable protective clothing
apron

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid pasty, liquid light pink
Odor	mild
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Initial boiling point	Polymerization may occur at elevated temperature.
Flash point	> 93 °C (> 199.4 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density (20 °C (68 °F))	1,3 g/cm ³
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

Reacts with oxidants, acids and lyes
Reaction with reducing agents.
Peroxides.
Hazardous polymerization may occur in the presence of excess peroxides and metals contamination.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Danger of decomposition if exposed to heat.

Exposure to light.

Do not heat mixed adhesive unless you plan to use immediately.

Failure to observe these precautions may result in excessive heat build-up causing an exotherm.

10.5. Incompatible materials

See section reactivity

10.6. Hazardous decomposition products

Hydrocarbons

carbon oxides.

nitrogen oxides

Polymerization may occur at elevated temperature or in the presence of incompatible materials.

Rapid polymerisation may generate excessive heat and pressure.

May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.

See section 5.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****General toxicological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:

May cause irritation to the digestive tract.

Inhalative toxicity:

May cause irritation to respiratory system.

Skin irritation:

Causes skin irritation.

Eye irritation:

Causes serious eye irritation.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LD50	8.025 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LC50	> 5,3 mg/l	Aerosol		rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LD50	4.250 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	not irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	highly irritating	20 s	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	not sensitising	Buehler test	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
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	A Mutagenic potential cannot be excluded.	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	A Mutagenic potential cannot be excluded.			mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	NOAEL=500 mg/kg	oral: unspecified	28 d	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	NOAEL=0,225 mg/kg	inhalation	14 d	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)

SECTION 12: Ecological information**General ecological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

If used properly the product does not enter the drains.

In the cured state contribution of this product to Environmental Hazards is insignificant in comparison to articles in which it is used.

12.1. Toxicity**Ecotoxicity:**

Harmful to aquatic life with long lasting effects.

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

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Dicyclopentenylloxyethyl Methacrylate. 68586-19-6	LC50	9 mg/l	Fish	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	LC50	55 mg/l	Fish	96 h	Cyprinus carpio	OECD Guideline 203 (Fish, Acute Toxicity Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	EC50	473 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	EC50	255 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	53 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	NOEC	100 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

12.2. Persistence and degradability**Persistence and Biodegradability:**

The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Dicyclopentenylloxyethyl Methacrylate. 68586-19-6		aerobic	0 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8		aerobic	37 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil**Mobility:**

Cured adhesives are immobile.

Bioaccumulative potential:

No data available.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Dicyclopentenylloxyethyl Methacrylate. 68586-19-6	3,39					

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
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[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
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12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product disposal:

Special waste incineration with the approval of the responsible local authority.

Disposal of uncleaned packages:

Disposal must be made according to official regulations.

Use packages for recycling only when totally empty.

Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information**14.1. UN number**

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

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

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

14.4. Packaging group

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

14.5. Environmental hazards

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

14.6. Special precautions for user

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

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**VOC content
(1999/13/EC)

< 3 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

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:

- H242 Heating may cause a fire.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H360FD May damage fertility. May damage the unborn child.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful 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.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.