

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

1.1. Product identifier

Trade name or designation of the mixture	Hylomar Tilebond 402 Part A Hardener
Registration number	-
Synonyms	None.
SDS number	26
Issue date	29-November-2012
Version number	03
Revision date	04-July-2017
Supersedes date	22-March-2013

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

Identified uses	Epoxy adhesive.
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Manufacturer:	Hylomar Ltd.
Address:	Hylo House, Cale Lane, New Springs, Wigan, Greater Manchester, UK, WN2 1JT
Telephone number:	+44(0)1942 617000
E-mail address:	info@hylomar.co.uk
Contact person:	Technical Department
1.4. Emergency telephone number	+1-760-476-3961 (US)
	Access code: 333544

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Skin corrosion/irritation	Category 1B	H314 - Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.

Environmental hazards

Hazardous to the aquatic environment, acute aquatic hazard	Category 1	H400 - Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term aquatic hazard	Category 1	H410 - Very toxic to aquatic life with long lasting effects.

Hazard summary Causes severe skin burns and eye damage. Harmful if swallowed. May cause an allergic skin reaction. Prolonged exposure may cause chronic effects. Dangerous for the environment if discharged into watercourses.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Amines, coco alkyl, Phenol, styronated, Trimethylhexane-1,6-diamine

Hazard pictograms



Signal word	Danger
Hazard statements	
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE/doctor.

Storage

P405	Store locked up.
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Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Supplemental label information None.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Phenol, styronated	20-50	61788-44-1 262-975-0	-	-	
Classification:	Skin Irrit. 2;H315, Skin Sens. 1;H317, Aquatic Chronic 2;H411				
Dimethyl silicone polymer with silica	10-15	67762-90-7	-	-	
Classification:	Eye Irrit. 2;H319				
2,4,6-Tris(dimethylaminomethyl)phenol	1-10	90-72-2 202-013-9	-	603-069-00-0	
Classification:	Acute Tox. 4;H302, Skin Irrit. 2;H315, Eye Irrit. 2;H319				
Amines, coco alkyl	1-<10	61788-46-3 262-977-1	-	612-285-00-4	M=10
Classification:	Acute Tox. 4;H302, Asp. Tox. 1;H304, Skin Corr. 1B;H314, Eye Dam. 1;H318, STOT SE 3;H335, STOT RE 2;H373, Aquatic Acute 1;H400, Aquatic Chronic 1;H410				
Trimethylhexane-1,6-diamine	1-10	25513-64-8 247-063-2	01-2119560598-25-xxxx	-	
Classification:	Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Corr. 1B;H314, Skin Sens. 1;H317, Aquatic Chronic 3;H412				

List of abbreviations and symbols that may be used above

M: M-factor

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Components not listed are either non-hazardous or are below reportable limits. The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation

Move injured person into fresh air and keep person calm under observation. Get medical attention if discomfort persists.

Skin contact

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact

Immediately flush with plenty of water for at least 15 minutes occasionally lifting upper and lower eyelids. If easy to do, remove contact lenses. Get medical attention immediately. Continue to rinse.

Ingestion	Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get immediate medical attention.
4.2. Most important symptoms and effects, both acute and delayed	Sensitisation. Causes skin and eye burns. Vapours may irritate throat and respiratory system and cause coughing.
4.3. Indication of any immediate medical attention and special treatment needed	Treat symptomatically. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards	The product is not flammable. Will burn if involved in a fire.
5.1. Extinguishing media	
Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising from the substance or mixture	By heating and fire, toxic vapours/gases may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Special fire fighting procedures	Cool containers exposed to heat with water spray and remove container, if no risk is involved. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Avoid contact with eyes, skin, and clothing.
For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
6.2. Environmental precautions	Do not discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so.
6.3. Methods and material for containment and cleaning up	The product is immiscible with water and will sediment in water systems. Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Never return spills to original containers for re-use. Clean contaminated surface thoroughly.
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Do not get in eyes, on skin, or on clothing. Avoid breathing mist or vapour. Wash thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Store locked up. Store in original container. Keep container tightly closed in a cool, well-ventilated place. Store away from incompatible materials (see section 10 of the SDS).
7.3. Specific end use(s)	Epoxy adhesive.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters	
Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

- Hand protection Wear appropriate chemical resistant gloves. Viton or nitrile rubber gloves are recommended. Frequent change is advisable.

- Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P2).

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Keep away from food and drink. Contaminated work clothing should not be allowed out of the workplace.

Environmental exposure controls Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Paste.

Form Paste.

Colour Off-white.

Odour Amine.

Odour threshold Not available.

pH 11

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point 120.0 °C (248.0 °F)

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapour pressure Not available.

Vapour density Not available.

Relative density 1.04

Relative density temperature 25 °C (77 °F)

Solubility(ies) Insoluble in water.

Partition coefficient (n-octanol/water) No data available.

Auto-ignition temperature Not available.

Decomposition temperature	Not available.
Viscosity	100000 cSt
Viscosity temperature	25 °C (77 °F)
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Heat. Contact with incompatible materials. Freezing.
10.5. Incompatible materials	Strong acids. Strong oxidising agents. Peroxides. Phenols. Strong bases.
10.6. Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	May cause irritation to the mucous membranes and upper respiratory tract.
Skin contact	Causes severe skin burns. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms Sensitisation. Causes skin and eye burns. Vapours may irritate throat and respiratory system and cause coughing.

11.1. Information on toxicological effects

Acute toxicity Causes eye and skin burns.

Components	Species	Test results
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Amines, coco alkyl (CAS 61788-46-3)

Acute

Oral

LD50	Rat	1300 mg/kg
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Phenol, styronated (CAS 61788-44-1)

Acute

Dermal

LD50	Rat	> 2000 mg/kg
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Oral

LD50	Rat	> 2000 mg/kg
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Trimethylhexane-1,6-diamine (CAS 25513-64-8)

Acute

Dermal

LD50	Rabbit	1280 mg/kg
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Oral

LD50	Rat	910 mg/kg
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Skin corrosion/irritation Causes severe skin burns.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory sensitisation Due to partial or complete lack of data the classification is not possible.

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.

Carcinogenicity Due to partial or complete lack of data the classification is not possible.

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - single exposure Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Not likely, due to the form of the product.
Mixture versus substance information	The product is a mixture.
Other information	None known.

SECTION 12: Ecological information

12.1. Toxicity Very toxic to aquatic life with long lasting effects.

Components	Species	Test results
Phenol, styronated (CAS 61788-44-1)		
Aquatic		
Algae	EL50	Algae (Scenedesmus) 3.14 mg/l, 72 hours
Crustacea	EL50	Daphnia magna 1 - 10 mg/l, 48 hours
Fish	LL50	Fish 14.8 mg/l, 96 hours
Trimethylhexane-1,6-diamine (CAS 25513-64-8)		
Aquatic		
Algae	EC50	Algae (Scenedesmus) 29.5 mg/l, 72 hours
Crustacea	EC50	Daphnia magna 31.5 mg/l, 24 hours
Fish	LC50	Leuciscus idus 174 mg/l, 48 hours
Other		
Bacteria	EC50	Pseudomonas putida 89 mg/l, 17 hours

12.2. Persistence and degradability The product is not expected to be readily biodegradable.

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow) No data available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

Mobility in general The product is insoluble in water.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	08 04 09* The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Do not discharge into drains, water courses or onto the ground. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN2735
14.2. UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, coco alkyl, Trimethylhexane-1,6-diamine)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Hazard No. (ADR)	80
Tunnel restriction code	E

- 14.4. Packing group II
- 14.5. Environmental hazards Yes
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

- 14.1. UN number UN2735
- 14.2. UN proper shipping name AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, coco alkyl, Trimethylhexane-1,6-diamine)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
 - Label(s) 8
- 14.4. Packing group II
- 14.5. Environmental hazards Yes
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN

- 14.1. UN number UN2735
- 14.2. UN proper shipping name Amines, Liquid, N.o.s. (Amines, coco alkyl, Trimethylhexane-1,6-diamine)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
 - Label(s) 8
- 14.4. Packing group II
- 14.5. Environmental hazards Yes
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

- 14.1. UN number UN2735
- 14.2. UN proper shipping name Amines, liquid, corrosive, n.o.s. (Amines, coco alkyl, Trimethylhexane-1,6-diamine)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
 - Label(s) 8
- 14.4. Packing group II
- 14.5. Environmental hazards Yes
- ERG Code 8L
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

- 14.1. UN number UN2735
- 14.2. UN proper shipping name AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, coco alkyl, Trimethylhexane-1,6-diamine)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
 - Label(s) 8
- 14.4. Packing group II
- 14.5. Environmental hazards
 - Marine pollutant Yes
- EmS F-A, S-B
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

General information IMDG Regulated Marine Pollutant. The transportation information provided represents the regulatory transport classification of the product without consideration to packaging, quantity, or modal restrictions and exceptions. It is the user's responsibility to determine the appropriate packaging and modal requirements and/or limitations for the product quantity being shipped.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Amines, coco alkyl (CAS 61788-46-3)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Follow national regulation for work with chemical agents. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration.
PBT: Persistent, bioaccumulative and toxic.
vPvB: Very Persistent and very Bioaccumulative.
LD50: Lethal Dose, 50%.
LC50: Lethal Concentration, 50%.
EC50: Effective Concentration, 50%.

References

HSDB® - Hazardous Substances Data Bank

Information on evaluation method leading to the classification of mixture

The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Training information

Follow training instructions when handling this material.

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.