SAFETY DATA SHEET

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

Product identifier

Trade name or designation of the mixture	HYLOGRIP HY2143
Registration number	-
Synonyms	None.
SDS number	15
Date of first issue	22March-2012
Version number	01
Revision date	-
Supersedes date	-

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

Identified uses	Thread Locking Adhesive.
Uses advised against	None known.

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
Emergency telephone:	1-760-476-3961 Access code: 333544

Section 2: Hazards identification

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 Directive 67/548/EEC or 1999/45/EC as amended

This preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification Xi;R36, R43

The full text for all R-phrases is displayed in section 16.

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

Health hazards

Skin sensitisation	Category 1	May cause an allergic skin reaction.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Irritating to eyes. May cause sensitisation by skin contact.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Irritating to eyes. May cause skin irritation. May cause allergic skin reaction.
Main symptoms	Irritation of eyes and mucous membranes. Exposed may experience eye tearing, redness, and discomfort. May cause redness and pain. Rash. In high concentrations, vapours may be irritating to the respiratory system.

Label elements

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

Contains:	(1-Methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate, 2'-Phenylacetoh ydrazide, 2-Hydroxyethyl methacrylate

Signal word	Warning
Hazard statements	May cause an allergic skin reaction.
Precautionary statements	
Prevention	Avoid breathing vapours. Wear protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace.
Response	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Supplemental label information	None.
Other hazards	May cause skin irritation. In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

Section 3: Composition/information on ingredients

Mixture

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
(1-Methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate	50 - 70	24448-20-2 246-263-7	-	-	
Classification: **DSD:** R43 **CLP:** Skin Sens. 1;H317					
Di-"isononyl" phthalate	10 - 30	28553-12-0 249-079-5	-	-	#
Classification: **DSD:** - **CLP:** -					
2-Hydroxyethyl methacrylate	1 - <10	868-77-9 212-782-2	-	607-124-00-X	
Classification: **DSD:** Xi;R36/38, R43 **CLP:** Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319					
Cumene hydroperoxide	< 1	80-15-9 201-254-7	-	617-002-00-8	
Classification: **DSD:** O;R7, T;R23, C;R34, Xn;R21/22-48/20/22, N;R51/53 **CLP:** Org. Perox. E;H242, Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Corr. 1B;H314, Acute Tox. 3;H331, STOT RE 2;H373, Aquatic Chronic 2;H411					
2'-Phenylacetohydrazide	< 0.2	114-83-0 204-055-3	-	-	
Classification: **DSD:** Xn;R20/21/22, Xi;R36/37/38, R43 **CLP:** Acute Tox. 3;H301, Acute Tox. 4;H312, Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, Acute Tox. 4;H332, STOT SE 3;H335					
Hydroquinone	< 0.1	123-31-9 204-617-8	-	604-005-00-4	#
Classification: **DSD:** Carc. Cat. 3;R40, Muta. Cat. 3;R68, Xn;R22, Xi;R41, R43, N;R50 **CLP:** Acute Tox. 4;H302, Skin Sens. 1;H317, Eye Dam. 1;H318, Muta. 2;H341, Carc. 2;H351, Aquatic Acute 1;H400					

#: This substance has workplace exposure limit(s).
CLP: Regulation No. 1272/2008.
DSD: Directive 67/548/EEC.

Composition comments	The full text for all R- and H-phrases is displayed in section 16. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Section 4: First aid measures

General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Description of first aid measures	
Inhalation	Move into fresh air and keep at rest. If not breathing, give artificial respiration or give oxygen by trained personnel. Get medical attention if any discomfort continues.
Skin contact	Take off immediately all contaminated clothing. Wash skin thoroughly with soap and water. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact	Flush eyes thoroughly with water for at least 15 minutes. Remove any contact lenses. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly. Drink a few glasses of water or milk. Get medical attention if any discomfort continues.
Most important symptoms and effects, both acute and delayed	Irritation of eyes and mucous membranes. Exposed may experience eye tearing, redness, and discomfort. May cause redness and pain. Rash. In high concentrations, vapours may be irritating to the respiratory system.
Indication of any immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.

Section 5: Firefighting measures

General fire hazards	The product is not flammable.
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.
Special hazards arising from the substance or mixture	By heating and fire, toxic vapours/gases may be formed.
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 firefighting 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

Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Keep upwind. Ventilate closed spaces before entering. Avoid inhalation of vapours/spray and contact with skin and eyes.
For emergency responders	Keep unnecessary personnel away. Wear protective clothing as described in Section 8 of this safety data sheet.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not discharge into drains, water courses or onto the ground.
Methods and material for containment and cleaning up	Ventilate the area. In case of spills, beware of slippery floors and surfaces. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Following product recovery, flush area with water.
Reference to other sections	For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

Precautions for safe handling	Use only outdoors or in a well-ventilated area. Keep away from sources of ignition - No smoking. Avoid inhalation of vapours/spray and contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Wash thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Avoid release to the environment.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a cool, well-ventilated place. Keep away from heat, spark, open flames and other sources of ignition. Store away from incompatible materials.
Specific end use(s)	Thread Locking Adhesive.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Di-"isononyl" phthalate (28553-12-0)	TWA	5 mg/m3
Hydroquinone (123-31-9)	TWA	0.5 mg/m3

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

DNEL

Components	Type	Route	Value	Form
2-Hydroxyethyl methacrylate (868-77-9)	Workers	Dermal	1.3 mg/kg/day	Long term Systemic effects
		Inhalation	4.9 mg/m3	Long term Systemic effects
Cumene hydroperoxide (80-15-9)	Workers	Inhalation	6 mg/m3	Long term Systemic effects
Hydroquinone (123-31-9)	Workers	Dermal	128 mg/kg/day	Long term Systemic effects
		Inhalation	7 mg/m3	Long term Systemic effects
		Inhalation	1 mg/m3	Long term Local effects

PNEC

Components	Type	Route	Value
2-Hydroxyethyl methacrylate (868-77-9)	Aqua (freshwater)	Water	0.482 mg/l
	Aqua (intermittent releases)	Water	1 mg/l
	Aqua (marine water)	Water	0.482 mg/l
	Sediment (freshwater)	Not applicable	3.79 mg/kg
	Sediment (marine water)	Not applicable	3.79 mg/kg
	Sewage Treatment Plant	Not applicable	10 mg/l
	Soil	Soil	0.476 mg/kg
Cumene hydroperoxide (80-15-9)	Aqua (freshwater)	Water	0.0012 mg/l
	Aqua (intermittent releases)	Water	0.012 mg/l
	Aqua (marine water)	Water	0.0001 mg/l
	Sediment (freshwater)	Not applicable	0.253 mg/kg
	Sediment (marine water)	Not applicable	0.0253 mg/kg
	Sewage Treatment Plant	Not applicable	0.35 mg/l
	Soil	Soil	0.056 mg/kg
Hydroquinone (123-31-9)	Aqua (freshwater)	Water	0.114 µg/l
	Aqua (intermittent releases)	Water	1.34 µg/l
	Aqua (marine water)	Water	0.0114 µg/l
	Sediment (freshwater)	Not applicable	0.98 µg/kg
	Sediment (marine water)	Not applicable	0.097 µg/kg
	Sewage Treatment Plant	Not applicable	0.71 mg/l
	Soil	Soil	0.129 µg/kg

Exposure controls

Appropriate engineering controls Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation of dust and vapours.

Individual protection measures, such as personal protective equipment

General information Personal protective 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).

Skin protection

- Hand protection	Wear protective gloves. Viton or nitrile rubber gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
- Other	Normal work clothing (long sleeved shirts and long pants) is recommended.
Respiratory protection	Under normal conditions, respirator is not normally required. In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment.
Thermal hazards	Not applicable.
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.
Environmental exposure controls	Environmental manager must be informed of all major releases.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Dark blue. Liquid.
Physical state	Liquid.
Form	Liquid.
Colour	Dark blue.
Odour	Ester-like.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	102 °C (215.6 °F)
Auto-ignition temperature	Not available.
Flammability (solid, gas)	Not applicable.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Oxidising properties	Not available.
Explosive properties	Not applicable.
Explosive limit	Not applicable.
Vapour pressure	> 0.1 kPa (25 °C)
Vapour density	> 1 (Air = 1)
Evaporation rate	Not available.
Relative density	1.05 (25 °C) (Water = 1)
Solubility (water)	Slight
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	3000 mPa·s (25 °C)
Percent volatile	Not available.
Other information	No relevant additional information available.

Section 10: Stability and reactivity

Reactivity	The product is stable and non reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidising agents. Reducing Agents. Radical initiators.
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

Ingestion Ingestion may cause irritation and malaise.

Inhalation In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

Skin contact May cause skin irritation. May cause sensitisation by skin contact.

Eye contact Irritating to eyes.

Symptoms Irritation of eyes and mucous membranes. Exposed may experience eye tearing, redness, and discomfort. May cause redness and pain. Rash. In high concentrations, vapours may be irritating to the respiratory system.

Information on toxicological effects

Acute toxicity May cause discomfort if swallowed.

Components	Test results
2'-Phenylacetohydrazide (114-83-0)	Acute Oral LD50 Mouse: 270 mg/kg
Hydroquinone (123-31-9)	Acute Dermal LD50 Cat: 5970 mg/kg
	Acute Oral LD50 Rat: 320 mg/kg
Di-"isononyl" phthalate (28553-12-0)	Acute Dermal LD50 Rabbit: > 3160 mg/kg
	Acute Dermal LD50 Rabbit: > 3.16 g/kg
	Acute Inhalation LC50 Rat: > 4.4 mg/l 4 Hours
	Acute Oral LD50 Rat: > 40000 mg/kg
	Acute Oral LD50 Rat: > 10 g/kg
Cumene hydroperoxide (80-15-9)	Acute Dermal LD50 Rat: 500 mg/kg
	Acute Inhalation LC50 Rat: 220 ppm 4 hours
	Acute Oral LD50 Rat: 800 mg/kg
2-Hydroxyethyl methacrylate (868-77-9)	Acute Dermal LD50 Rabbit: >= 3000 mg/kg
	Acute Oral LD50 Rat: 5050 mg/kg

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation Irritating to eyes.

Respiratory sensitisation No data available.

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity No data available.

Carcinogenicity No data available.

IARC Monographs. Overall Evaluation of Carcinogenicity

Hydroquinone (CAS 123-31-9) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity No data available.

Specific target organ toxicity - single exposure In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

Specific target organ toxicity - repeated exposure No data available.

Aspiration hazard No data available.

Mixture versus substance information No data available.

Other information No other specific acute or chronic health impact noted.

Section 12: Ecological information

Toxicity

Components	Test results
Hydroquinone (123-31-9)	EC50 Algae (Selenastrum capricornotum): 0.3 mg/l 72 hours
	EC50 Daphnia magna: 0.3 mg/l 48 hours
	EC50 Water flea (Daphnia magna): 0.12 - 0.15 mg/l 48 hours
	LC50 Zebrafish (Danio rerio): 0.11 - 0.64 mg/l 96 hours
Di-"isononyl" phthalate (28553-12-0)	EC50 Water flea (Daphnia magna): > 0.06 mg/l 48 hours
	LC50 Fathead minnow (Pimephales promelas): > 0.1 mg/l 96 hours

Components	Test results
Cumene hydroperoxide (80-15-9)	EC50 Daphnia: 7 mg/l 24 hours LC50 Fish: 3.9 mg/l 96 hours
2-Hydroxyethyl methacrylate (868-77-9)	LC50 Fathead minnow (Pimephales promelas): 213 - 242 mg/l 96 hours

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Mobility The product is slightly soluble in water.

Environmental fate - Partition coefficient Not available.

Mobility in soil Not available.

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

Other adverse effects The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13: Disposal considerations

Waste treatment methods

Residual waste Do not discharge into rivers, lakes, mountains, etc. because the product may affect the environment.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code 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. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions Dispose of in accordance with local regulations.

Section 14: Transport information

ADR

The product is not covered by international regulation on the transport of dangerous goods.

RID

The product is not covered by international regulation on the transport of dangerous goods.

ADN

The product is not covered by international regulation on the transport of dangerous goods.

IATA

The product is not covered by international regulation on the transport of dangerous goods.

IMDG

The product is not covered by international regulation on the transport of dangerous goods.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Section 15: Regulatory information

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

EU regulations

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

Not listed.

Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registery (EPER)

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List

Not listed.

Other regulations	The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. Additional information is given in the Safety Data Sheet.
National regulations	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. Follow national regulation for work with chemical agents.
Chemical safety assessment	No Chemical Safety Assessment has been carried out.

Section 16: Other information

List of abbreviations	DSD: Directive 67/548/EEC. CLP: Regulation No. 1272/2008. DNEL: Derived No-Effect Level. PNEC: Predicted No-Effect Concentration. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent and very Bioaccumulative.
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.
Full text of any statements or R-phrases and H-phrases under Sections 2 to 15	R7 May cause fire. R20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R21/22 Harmful in contact with skin and if swallowed. R22 Harmful if swallowed. R23 Toxic by inhalation. R34 Causes burns. R36 Irritating to eyes. R36/37/38 Irritating to eyes, respiratory system and skin. R36/38 Irritating to eyes and skin. R40 Limited evidence of a carcinogenic effect. R41 Risk of serious damage to eyes. R43 May cause sensitisation by skin contact. R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. R50 Very toxic to aquatic organisms. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R68 Possible risk of irreversible effects. H242 - Heating may cause a fire. H301 - Toxic if swallowed. H302 - Harmful if swallowed. 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. H318 - Causes serious eye damage. H319 - Causes serious eye irritation. H331 - Toxic if inhaled. H332 - Harmful if inhaled. H335 - May cause respiratory irritation. H341 - Suspected of causing genetic defects. H351 - Suspected of causing cancer. H373 - May cause damage to organs through prolonged or repeated exposure. H400 - Very toxic to aquatic life. H411 - Toxic 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.
Issue date	22-March-2012

Revision date	22-March-2012
Print date	22-March-2012