

SDS Number 225-6136 Part A
and Part B Page 13-22 enclosed

SAFETY DATA SHEET

POLYMARINE HYPALON ADHESIVE

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

1.1. Product identifier

Product Name: Polymarine HYPALON Adhesive Part A

Product Number: 62-896345A01, 92-8M0068698, 92-891690, 92-892752, 92-896344A05, 92-896345A01, 92-898175, 92-899874029, 92-8M0072210, 92-8M0119916

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

Identified uses Adhesive.

Uses advised against No specific uses advised against are identified.

Supplier:

Mercury Marine
PO Box 1939
Fond du Lac, WI 54935
Tel: (920) 929-5040
customer service

1.4. Emergency telephone number

Emergency telephone CHEMTREC US 1-800-424-9300 or Global +1 703 527 3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H336

Environmental hazards Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC) Xi;R36/38. R43. F;R11. N;R51/53. R67.

Physicochemical The product is highly flammable. Vapours may form explosive mixtures with air. Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

2.2. Label elements

Pictogram



Signal word

Danger

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Hazard statements	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P313 Get medical advice/attention. P501 Dispose of contents/container in accordance with national regulations.
Contains	BUTANONE, CYCLOHEXANE, ACETONE, hydrocarbons, C6-C7,n-alkanes, isoalkanes, cyclics, <5% n-hexane, ROSIN

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

BUTANONE 10-30%		
CAS number: 78-93-3	EC number: 201-159-0	REACH registration number: 01-2119457290-43
Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336		Classification (67/548/EEC or 1999/45/EC) F;R11 Xi;R36 R66 R67
CYCLOHEXANE 10-30%		
CAS number: 110-82-7	EC number: 203-806-2	REACH registration number: 01-2119463273-41-0000
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Flam. Liq. 2 - H225 Acute Tox. 4 - H312 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		Classification (67/548/EEC or 1999/45/EC) F;R11 Xn;R65 Xi;R38 R67 N;R50/53

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ACETONE 10-30%		
CAS number: 67-64-1	EC number: 200-662-2	REACH registration number: 01-2119471330-49
Classification Flam. Liq. 2 - H225 Acute Tox. 4 - H312 Eye Irrit. 2 - H319 STOT SE 3 - H336		
Classification (67/548/EEC or 1999/45/EC) F;R11 Xi;R36 R66 R67		
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 10-30%		
CAS number: —	EC number: 921-024-6	REACH registration number: 01-2119475514-35
Classification Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411		
Classification (67/548/EEC or 1999/45/EC) Xn;R65. Xi;R38. F;R11. N;R51/53. R67.		
ROSIN 1-5%		
CAS number: 8050-09-7	EC number: 232-475-7	REACH registration number: 01-2119480418-32-0036
Classification Skin Sens. 1 - H317		
Classification (67/548/EEC or 1999/45/EC) R43		
HEXANE-norm <1%		
CAS number: 110-54-3	EC number: 203-777-6	REACH registration number: 01-2119480412-44
Classification Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Repr. 2 - H361f STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411		
Classification (67/548/EEC or 1999/45/EC) F;R11 Repr. Cat. 3;R62 Xn;R48/20,R65 Xi;R38 R67 N;R51/53		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Get medical attention if any discomfort continues.

Inhalation

Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

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Ingestion	Rinse mouth thoroughly with water. Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
Specific treatments	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire. Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
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

Specific hazards	The product is flammable. Heating may generate flammable vapours. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m ³ . The product is highly flammable.
Hazardous combustion products	Does not decompose when used and stored as recommended.

5.3. Advice for firefighters

Protective actions during firefighting	Control run-off water by containing and keeping it out of sewers and watercourses. Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes.
Special protective equipment for firefighters	Wear chemical protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
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6.2. Environmental precautions

Environmental precautions	Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Do not discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

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Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Keep container tightly closed. Keep only in the original container.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

BUTANONE

Long-term exposure limit (8-hour TWA): WEL 200 ppm(Sk) 600 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 300 ppm(Sk) 899 mg/m³(Sk)

CYCLOHEXANE

Long-term exposure limit (8-hour TWA): WEL 100 ppm 350 mg/m³

Short-term exposure limit (15-minute): WEL 300 ppm 1050 mg/m³

ACETONE

Long-term exposure limit (8-hour TWA): WEL 500 ppm 1210 mg/m³

Short-term exposure limit (15-minute): WEL 1500 ppm 3620 mg/m³

HEXANE-norm

Long-term exposure limit (8-hour TWA): WEL 20 ppm 72 mg/m³

Short-term exposure limit (15-minute): WEL

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

BUTANONE (CAS: 78-93-3)

Ingredient comments WEL = Workplace Exposure Limits

ACETONE (CAS: 67-64-1)

Ingredient comments WEL = Workplace Exposure Limits

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

The following protection should be worn: Chemical splash goggles.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Wear apron or protective clothing in case of contact.

Hygiene measures

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station. Wash contaminated clothing before reuse. Wash hands after handling. Eating, smoking and water fountains prohibited in immediate work area.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Various colours.
Odour	Acetone.
Odour threshold	Not available.
pH	Estimated value. pH (concentrated solution): 7-8
Melting point	Not available.
Initial boiling point and range	56°C @ 20
Flash point	Estimated value. -19°C
Evaporation rate	Not determined.
Evaporation factor	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Estimated value. : 1.8%-13%
Other flammability	Not available.
Vapour pressure	Not available.
Vapour density	Not available.

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Relative density	0.86 @ 20°C Bulk
Density	Not available.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	Estimated value. 515°C
Decomposition Temperature	Not available.
Viscosity	Kinematic viscosity > 20.5 mm ² /s.
Explosive properties	Not available.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not available.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information	No information required.
Refractive index	Not available.
Particle size	Not available.
Molecular weight	Not available.
Volatility	Not available.
Saturation concentration	Not available.
Critical temperature	Not available.
Volatile organic compound	This product contains a maximum VOC content of 700 g/l.

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	No particular stability concerns. Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not applicable. Not relevant.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.
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10.6. Hazardous decomposition products

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Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	No information available.
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Other health effects	There is no evidence that the product can cause cancer.
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Serious eye damage/irritation

Serious eye damage/irritation	Irritation of eyes is assumed.
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Respiratory sensitisation

Respiratory sensitisation	Not determined.
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Skin sensitisation

Skin sensitisation	Not determined.
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Carcinogenicity

Carcinogenicity	Data lacking.
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Target organ for carcinogenicity

	Not relevant.
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Reproductive toxicity

Reproductive toxicity - fertility	Not available.
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Reproductive toxicity - development

	This substance has no evidence of toxicity to reproduction.
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Aspiration hazard

Aspiration hazard	Not anticipated to present an aspiration hazard, based on chemical structure.
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General information

	No specific health hazards known.
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Inhalation

	Vapour from this product may be hazardous by inhalation.
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Ingestion

	May be harmful if swallowed.
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Skin contact

	May be harmful in contact with skin.
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Eye contact

	May cause blurred vision and serious eye damage.
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Toxicological information on ingredients.

BUTANONE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)	2,000.0
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Species	Rat
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Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg)	2,000.0
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Species	Rat
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POLYMARINE HYPALON ADHESIVEAcute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 20.0

Species Rat

CYCLOHEXANEAcute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

ATE dermal (mg/kg) 2,000.0

SECTION 12: Ecological Information**12.1. Toxicity**

Acute toxicity - fish Supplier's information.
LC₅₀, hours: >1-10 mg/l, Fish

Acute toxicity - aquatic plants , hours: >1-10 mg/l, Algae

Ecological information on ingredients.CYCLOHEXANEAcute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 4.53 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates ECo, 48 hours: 0.9 mg/l, Daphnia magna

Acute toxicity - aquatic plants ICo, 72 hours: 3.4 mg/l, Algae

Chronic aquatic toxicity

M factor (Chronic) 1

12.2. Persistence and degradability**12.3. Bioaccumulative potential**

Partition coefficient Not available.

12.4. Mobility in soil

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Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Ecological information on ingredients.

BUTANONE

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

BUTANONE

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

BUTANONE

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1133

UN No. (IMDG) 1133

UN No. (ICAO) 1133

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ADHESIVES (hydrocarbons, C6-C7,n-alkanes, isoalkanes, cyclics, <5% n-hexane)

Proper shipping name (IMDG) ADHESIVES (hydrocarbons, C6-C7,n-alkanes, isoalkanes, cyclics, <5% n-hexane)

Proper shipping name (ICAO) ADHESIVES (hydrocarbons, C6-C7,n-alkanes, isoalkanes, cyclics, <5% n-hexane)

Proper shipping name (ADN) ADHESIVES (hydrocarbons, C6-C7,n-alkanes, isoalkanes, cyclics, <5% n-hexane)

14.3. Transport hazard class(es)

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ADR/RID class 3

ADR/RID subsidiary risk

ADR/RID label 3

IMDG class 3

IMDG subsidiary risk

ICAO class/division 3

ICAO subsidiary risk

Transport labels

**14.4. Packing group**

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

**14.6. Special precautions for user**

EmS F-E, S-D

Emergency Action Code •3YE

Hazard Identification Number (ADR/RID) 33

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulations Health and Safety at Work etc. Act 1974 (as amended).
 The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
 The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
 Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation Commission Directive 91/322/EEC of 29 May 1991 on establishing indicative limit values by implementing Council Directive 80/1107/EEC on the protection of workers from the risks related to exposure to chemical, physical and biological agents at work.
 Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

POLYMARINE ADHESION ADHESIVE**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

SECTION 16: Other information

Issued by	Compliance
Revision date	15/07/2015
Revision	20
Risk phrases in full	R11 Highly flammable. R36 Irritating to eyes. R36/38 Irritating to eyes and skin. R38 Irritating to skin. R43 May cause sensitisation by skin contact. R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R62 Possible risk of impaired fertility. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.
Hazard statements in full	H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H361f Suspected of damaging fertility. 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.
Store Between	Store Between 5°C - 25°C
Contains SVHC	NO

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A3695B POLYMARINE CURING AGENT

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Compilation date: 29/10/2010

Revision No: 2

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

1.1. Product identifier

Product name: A3695B POLYMARINE CURING AGENT (*Part B*)

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

Use of substance / mixture: Adhesive component.

1.3. Details of the supplier of the safety data sheet

Company name: Mercury Marine

1.4. Emergency telephone number

Emergency tel: 1-800-424-9300 or Global +1 703 527 3887

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: F: R11; Xi: R36/37/38; Sens.: R42/43; -: R66; -: R67; Xn: R40; Xn: R48/20

Most important adverse effects: Highly flammable. Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin contact. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Classification under CLP: This product has no classification under CLP.

2.2. Label elements

Label elements under CHIP:

Hazard symbols: Highly flammable.

Harmful.



[cont...]

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Risk phrases: R11: Highly flammable.

R36/37/38: Irritating to eyes, respiratory system and skin.

R42/43: May cause sensitisation by inhalation and skin contact.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

R40: Limited evidence of a carcinogenic effect.

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrases: S9: Keep container in a well-ventilated place.

S16: Keep away from sources of ignition - No smoking.

S33: Take precautionary measures against static discharges.

S23: Do not breathe vapour.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

S24/25: Avoid contact with skin and eyes.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S63: In case of accident by inhalation, remove casualty to fresh air and keep at rest.

S29/35: Do not empty into drains; dispose of this material and its container in a safe way.

S36/37: Wear suitable protective clothing and gloves.

Precautionary phrases: Contains isocyanates. See information supplied by the manufacturer.

Restricted to professional users.

2.3. Other hazards

Other hazards: In use, may form flammable / explosive vapour-air mixture.

PBT: This product is not identified as a PBT substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE - REACH registered number(s): 01-2119457014-47-0000

EINECS	CAS	CHIP Classification	CLP Classification	Percent
202-966-0	101-68-8	Xn: R20; Xi: R36/37/38; Xn: R40; Sens.: R42/43; Xn: R48/20	Carc. 2: H351; Acute Tox. 4: H332; Eye Irrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315; Resp. Sens. 1: H334; Skin Sens. 1: H317; STOT SE 2: H371; STOT RE 2: H373	10-30%

[cont...]

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ETHYL ACETATE - REACH registered number(s): 01-2119475103-46

205-500-4	141-78-6	F: R11; Xi: R36; -: R66; -: R67	Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336; -: EUH066	70-90%
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Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin.

Remove from skin with paper or towel. Wash effected area thoroughly with soap and water. Seek medical advice if symptoms persist.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

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

Skin contact: There may be irritation and redness at the site of contact. Onset of symptoms may be delayed

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Onset of symptoms may be delayed.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Alcohol or polymer foam. Carbon dioxide. Dry chemical powder. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Highly flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture. Vapour may travel considerable distance to source of ignition and flash back.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

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Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid. Eliminate all sources of ignition.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Smoking is forbidden. Use non-sparking tools.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed. Keep away from sources of ignition. Prevent the build up of electrostatic charge in the immediate area. Ensure lighting and electrical equipment are not a source of ignition.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.02mg/m3	0.07mg/m3	-	-

[cont...]

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Hazardous ingredients:

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.02mg/m3	0.07mg/m3	-	-

ETHYL ACETATE

UK	200 ppm	400 ppm	-	-
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8.1. DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.

Respiratory protection: If exposure levels are likely to be exceeded, use a full face mask fitted with an organic AXP3 filter for short term low level exposures. For long term or high level exposures, compressed airline breathing apparatus should be used.

Hand protection: Impermeable gloves. Avoid skin contact. Use 4H chemical gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Brown

Odour: Characteristic odour

Evaporation rate: Fast

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Insoluble

Viscosity: Viscous

Boiling point/range°C: 77

upper: 11.5

Autoflammability°C: 540

Flammability limits %: lower: 2.1

Flash point°C: -1

Relative density: 0.94

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

[cont...]

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10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions. Stable at room temperature.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat. Hot surfaces. Sources of ignition. Flames.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

ORL	MUS	LD50	2200	mg/kg
ORL	RAT	LD50	9200	mg/kg

ETHYL ACETATE

ORL	MUS	LD50	4100	mg/kg
ORL	RAT	LD50	5620	mg/kg
SCU	RAT	LDLO	5	gm/kg

Relevant effects for mixture:

Effect	Route	Basis
Irritation	OPT INH DRM	Hazardous: calculated
Sensitisation	INH DRM	Hazardous: calculated
Repeated dose toxicity	INH	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact. Onset of symptoms may be delayed

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

[cont...]

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Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Onset of symptoms may be delayed.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: Biodegradable in part only.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: Volatile.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT substance.

12.6. Other adverse effects

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Wet waste: Arrange for disposal by a licenced waste disposal company

Disposal of packaging: Arrange for disposal by a licenced waste disposal company

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN1133

14.2. UN proper shipping name

Shipping name: ADHESIVES

14.3. Transport hazard class(es)

Transport class: 3

14.4. Packing group

Packing group: II

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

[cont...]

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14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: D/E

Transport category: 2

Section 15: Regulatory information

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

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and 3: EUH066: Repeated exposure may cause skin dryness or cracking.

H225: Highly flammable liquid and vapour.

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.

H336: May cause drowsiness or dizziness.

H351: Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

R11: Highly flammable.

R20: Harmful by inhalation.

R36/37/38: Irritating to eyes, respiratory system and skin.

R36: Irritating to eyes.

R40: Limited evidence of a carcinogenic effect.

R42/43: May cause sensitisation by inhalation and skin contact.

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

[cont...]

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Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

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