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
Product Number: 2990

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:
Polymarine Ltd.
Chester House
The Dingle
Colwyn Bay, Conwy
LL29 7SN
United Kingdom

Tel: +44 (0)1492 583322
Fax: +44 (0)1492 531666
info@polymarine.com

1.4. Emergency telephone number

Emergency telephone: +44 01827 69662 (NOT 24HRS)

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


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
POLYMARINE HYPALON ADHESIVE

**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

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>CAS number</th>
<th>EC number</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTANONE</td>
<td>10-30%</td>
<td>78-93-3</td>
<td>201-159-0</td>
<td>01-2119457290-43</td>
</tr>
</tbody>
</table>

**Classification (67/548/EEC or 1999/45/EC)**
- Flam. Liq. 2 - H225
- Eye Irrit. 2 - H315
- STOT SE 3 - H336

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>CAS number</th>
<th>EC number</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYCLOHEXANE</td>
<td>10-30%</td>
<td>110-82-7</td>
<td>203-806-2</td>
<td>01-2119463273-41-0000</td>
</tr>
</tbody>
</table>

**Classification (67/548/EEC or 1999/45/EC)**
- 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
# POLYMARINE HYPALON ADHESIVE

## ACETONE

<table>
<thead>
<tr>
<th>CAS number: 67-64-1</th>
<th>EC number: 200-662-2</th>
<th>REACH registration number: 01-2119471330-49</th>
</tr>
</thead>
</table>

**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

<table>
<thead>
<tr>
<th>CAS number: —</th>
<th>EC number: 921-024-6</th>
<th>REACH registration number: 01-2119475514-35</th>
</tr>
</thead>
</table>

**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

<table>
<thead>
<tr>
<th>CAS number: 8050-09-7</th>
<th>EC number: 232-475-7</th>
<th>REACH registration number: 01-2119480418-32-0036</th>
</tr>
</thead>
</table>

**Classification**
- Skin Sens. 1 - H317

**Classification (67/548/EEC or 1999/45/EC)**
- R43

## HEXANE-norm

<table>
<thead>
<tr>
<th>CAS number: 110-54-3</th>
<th>EC number: 203-777-6</th>
<th>REACH registration number: 01-2119480412-44</th>
</tr>
</thead>
</table>

**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.
POLYMARINE HYPALON ADHESIVE

**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/m3. 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.

**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.

**6.3. Methods and material for containment and cleaning up**
POLYMARINE HYPALON ADHESIVE

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
POLYMARINE HYPALON ADHESIVE

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.
POLYMARINE HYPALON ADHESIVE

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 mm²/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.
Vapour 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.

10.2. Chemical stability
Stability No particular stability concerns. Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions Not applicable. Not relevant.

10.4. Conditions to avoid
Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials
Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products
POLYMARINE HYPALON ADHESIVE

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.

SECTION 11: Toxicological Information

11.1, Information on toxicological effects

Toxicological effects No information available.

Other health effects There is no evidence that the product can cause cancer.

Serious eye damage/irritation

Irritation of eyes is assumed.

Respiratory sensitisation

Not determined.

Skin sensitisation

Not determined.

Carcinogenicity

Data lacking.

Target organ for carcinogenicity

Not relevant.

Reproductive toxicity

Not available.

Reproductive toxicity - fertility

This substance has no evidence of toxicity to reproduction.

Reproductive toxicity - development

Aspiration hazard

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

General information

No specific health hazards known.

Inhalation

Vapour from this product may be hazardous by inhalation.

Ingestion

May be harmful if swallowed.

Skin contact

May be harmful in contact with skin.

Eye contact

May cause blurred vision and serious eye damage.

Toxicological Information on Ingredients.

**BUTANONE**

<table>
<thead>
<tr>
<th>Acute toxicity - oral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity oral (LD₅₀) mg/kg</td>
</tr>
<tr>
<td>Species</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity - dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity dermal (LD₅₀) mg/kg</td>
</tr>
<tr>
<td>Species</td>
</tr>
</tbody>
</table>
POLYMARINE HYPALON ADHESIVE

Acute toxicity - Inhalation
Acute toxicity Inhalation (LC0 vapours mg/l) 20.0
Species Rat

Cyclohexane

Acute toxicity - oral
Acute toxicity oral (LD0 mg/kg) 5,000.0
Species Rat
ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal
Acute toxicity dermal (LD0 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.
LC0, hours: >1-10 mg/l, Fish

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

Ecological Information on Ingredients.

Cyclohexane

Acute 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 EC50, 48 hours: 0.9 mg/l, Daphnia magna
Acute toxicity - aquatic plants IC50, 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
POLYMARINE HYPALON ADHESIVE

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)

14.3, Transport hazard class(es)
POLYMARINE HYPALON ADHESIVE

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 33
(ADR/RID)

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 18: 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).
Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation
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