

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

1.1. Product identifier

Product form : Mixture
Product name : 2990 HYPALON Adhesive
Product code : 2990

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Adhesive

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Polymarine Ltd.
Chester House
The Dingle
Colwyn Bay, Conwy
LL29 7SN
United Kingdom
Telephone: +44 (0)1492 583322
Fax: +44 (0)1492 531666
E-mail: info@polymarine.com

1.4. Emergency telephone number

Emergency number : +44 (0)1827 69662 (Office hours only, English language only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

| | |
|-------------------|------|
| Flam. Liq. 2 | H225 |
| Skin Irrit. 2 | H315 |
| Eye Irrit. 2 | H319 |
| Skin Sens. 1 | H317 |
| STOT SE 3 | H336 |
| Aquatic Chronic 2 | H411 |

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS07

GHS09

Signal word (CLP) :

Danger

Contains :

Butanone; Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane;
Cyclohexane; Acetone; Rosin

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| | |
|--------------------------------|--|
| Hazard statements (CLP) | : 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 (CLP) | : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 - Do not breathe dust, fume, gas, mist, spray, vapours. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves, 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 and container to in accordance with national regulations. |

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|---------|---|
| Butanone | (CAS-No.) 78-93-3 (EC No.) 201-159-0 (EC index No.) 606-002-00-3 (REACH-no) 01-2119457290-43-XXXX | 10 - 30 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | (EC No.) 921-024-6 (REACH-no) 01-2119475514-35-XXXX | 10 - 30 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 |
| Cyclohexane | (CAS-No.) 110-82-7 (EC No.) 203-806-2 (EC index No.) 601-017-00-1 (REACH-no) 01-2119463273-41-XXXX | 10 - 20 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| Acetone | (CAS-No.) 67-64-1 (EC No.) 200-662-2 (EC index No.) 606-001-00-8 (REACH-no) 01-2119471330-49-XXXX | 10 - 30 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 |
| Rosin | (CAS-No.) 8050-09-7 (EC No.) 232-475-7 (EC index No.) 650-015-00-7 (REACH-no) 01-2119480418-32-XXXX | 1 - 5 | Skin Sens. 1, H317 |

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| | | | |
|-----------------|--|-----|---|
| n-hexane | (CAS-No.) 110-54-3 (EC No.) 203-777-6 (EC index No.) 601-037-00-0 (REACH-no) 01-2119480412-44-XXXX | < 1 | 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 |
| Magnesium oxide | (CAS-No.) 1309-48-4 (EC No.) 215-171-9 | < 1 | Not classified |
| Zinc oxide | (CAS-No.) 1314-13-2 (EC No.) 215-222-5 (EC index No.) 030-013-00-7 (REACH-no) 01-2119463881-32-XXXX | < 1 | Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation | : Remove to fresh air, keep the patient warm and at rest. If symptoms develop, obtain medical attention. |
| First-aid measures after skin contact | : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Ensure that folded skin of eyelids is thoroughly washed with water. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. Give 100 - 200 ml of water to drink. Obtain immediate medical attention. |

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

| | |
|-------------------------------------|---|
| Symptoms/effects after inhalation | : May cause drowsiness or dizziness. Nausea. |
| Symptoms/effects after skin contact | : Causes skin irritation. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |
| Symptoms/effects after ingestion | : Ingestion may cause discomfort. May cause stomach pain or vomiting if ingested. |

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Alcohol-resistant foam. Carbon dioxide. Dry chemical. For large fire: Water spray. |
| Unsuitable extinguishing media | : Do not use water jet. |

5.2. Special hazards arising from the substance or mixture

| | |
|--|--|
| Fire hazard | : Highly flammable liquid and vapour. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours. |
| Explosion hazard | : May form flammable/explosive vapour-air mixture. |
| Hazardous decomposition products in case of fire | : Carbon monoxide. Carbon dioxide. Nitrogen oxides. |

5.3. Advice for firefighters

| | |
|---------------------------|--|
| Firefighting instructions | : Move containers from fire area if you can do it without risk. Cool closed containers exposed to fire with water spray. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses. |
|---------------------------|--|

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Protection during firefighting : As in any fire, wear self-contained breathing apparatus and full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Remove ignition sources. Ventilate area. Avoid inhalation of vapours. Avoid contact with eyes, skin and clothing. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. See Section 8.
Emergency procedures : Remove ignition sources. Use only non-sparking tools. Ventilate area. Avoid inhalation of vapours. Avoid contact with eyes, skin and clothing.

6.2. Environmental precautions

Do not allow to enter drains or water courses. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak, if possible without risk. Dam up the liquid spill.
Methods for cleaning up : Use non-sparking tools. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Use only non-sparking tools. Take precautionary measures against static discharge. Use explosion-proof equipment. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours. Provide good ventilation in process area to prevent formation of vapour. Use only outdoors or in a well-ventilated area.
Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep only in original container. Store tightly closed in a dry, cool and well-ventilated place.
Incompatible materials : Strong oxidising agents.
Storage temperature : 5 – 25 °C

7.3. Specific end use(s)

Adhesive.

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

| Butanone (78-93-3) | |
|---|--|
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| Local name | Butanone |
| IOELV TWA (mg/m ³) | 600 mg/m ³ |
| IOELV TWA (ppm) | 200 ppm |
| IOELV STEL (mg/m ³) | 900 mg/m ³ |
| IOELV STEL (ppm) | 300 ppm |
| Regulatory reference | COMMISSION DIRECTIVE 2000/39/EC |
| Ireland - Occupational Exposure Limits | |
| Local name | Methyl ethyl ketone (MEK) |
| OEL (8 hours ref) (mg/m ³) | 600 mg/m ³ |
| OEL TWA [2] | 200 ppm |
| OEL (15 min ref) (mg/m ³) | 900 mg/m ³ |
| OEL STEL [ppm] | 300 ppm |
| Notes (IE) | Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values) |
| Regulatory reference | Chemical Agents Code of Practice 2020 |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Butan-2-one (methyl ethyl ketone) |
| WEL TWA (mg/m ³) | 600 mg/m ³ |
| WEL TWA (ppm) | 200 ppm |
| WEL STEL (mg/m ³) | 899 mg/m ³ |
| WEL STEL (ppm) | 300 ppm |
| Remark (WEL) | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity) |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| United Kingdom - Biological limit values | |
| Local name | Butan-2-one (methyl ethyl ketone) |
| BMGV | 70 µmol/l Parameter: butan-2-one - Medium: urine - Sampling time: Post shift |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| Cyclohexane (110-82-7) | |
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| Local name | Cyclohexane |
| IOELV TWA (mg/m ³) | 700 mg/m ³ |
| IOELV TWA (ppm) | 200 ppm |
| Regulatory reference | COMMISSION DIRECTIVE 2006/15/EC |

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Cyclohexane (110-82-7) | |
|---|---|
| Ireland - Occupational Exposure Limits | |
| Local name | Cyclohexane |
| OEL (8 hours ref) (mg/m ³) | 700 mg/m ³ |
| OEL TWA [2] | 200 ppm |
| Notes (IE) | IOELV (Indicative Occupational Exposure Limit Values) |
| Regulatory reference | Chemical Agents Code of Practice 2020 |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Cyclohexane |
| WEL TWA (mg/m ³) | 350 mg/m ³ |
| WEL TWA (ppm) | 100 ppm |
| WEL STEL (mg/m ³) | 1050 mg/m ³ |
| WEL STEL (ppm) | 300 ppm |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| Acetone (67-64-1) | |
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| Local name | Acetone |
| IOELV TWA (mg/m ³) | 1210 mg/m ³ |
| IOELV TWA (ppm) | 500 ppm |
| Regulatory reference | COMMISSION DIRECTIVE 2000/39/EC |
| Ireland - Occupational Exposure Limits | |
| Local name | Acetone |
| OEL (8 hours ref) (mg/m ³) | 1210 mg/m ³ |
| OEL TWA [2] | 500 ppm |
| Notes (IE) | IOELV (Indicative Occupational Exposure Limit Values) |
| Regulatory reference | Chemical Agents Code of Practice 2020 |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Acetone |
| WEL TWA (mg/m ³) | 1210 mg/m ³ |
| WEL TWA (ppm) | 500 ppm |
| WEL STEL (mg/m ³) | 3620 mg/m ³ |
| WEL STEL (ppm) | 1500 ppm |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| Zinc oxide (1314-13-2) | |
| Ireland - Occupational Exposure Limits | |
| Local name | Zinc oxide, fume |
| OEL (8 hours ref) (mg/m ³) | 2 mg/m ³ R (Respirable Fraction) |
| OEL (15 min ref) (mg/m ³) | 10 mg/m ³ |
| Regulatory reference | Chemical Agents Code of Practice 2020 |

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| n-hexane (110-54-3) | |
|---|--|
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| Local name | n-Hexane |
| IOELV TWA (mg/m ³) | 72 mg/m ³ |
| IOELV TWA (ppm) | 20 ppm |
| Regulatory reference | COMMISSION DIRECTIVE 2006/15/EC |
| Ireland - Occupational Exposure Limits | |
| Local name | n-Hexane |
| OEL (8 hours ref) (mg/m ³) | 72 mg/m ³ |
| OEL TWA [2] | 20 ppm |
| Notes (IE) | IOELV (Indicative Occupational Exposure Limit Values), Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body) |
| Regulatory reference | Chemical Agents Code of Practice 2020 |
| United Kingdom - Occupational Exposure Limits | |
| Local name | n-Hexane |
| WEL TWA (mg/m ³) | 72 mg/m ³ |
| WEL TWA (ppm) | 20 ppm |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

| Magnesium oxide (1309-48-4) | |
|--|--|
| Ireland - Occupational Exposure Limits | |
| Local name | Magnesium oxide |
| OEL (8 hours ref) (mg/m ³) | 4 mg/m ³ respirable dust 5 mg/m ³ fume 10 mg/m ³ total inhalable dust |
| OEL (15 min ref) (mg/m ³) | 10 mg/m ³ fume |
| Regulatory reference | Chemical Agents Code of Practice 2020 |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Magnesium oxide |
| WEL TWA (mg/m ³) | 4 mg/m ³ (as Mg) fume and respirable dust 10 mg/m ³ (as Mg) inhalable dust fume |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

| Rosin (8050-09-7) | |
|--|--|
| United Kingdom - Occupational Exposure Limits | |
| Local name | Rosin-based solder flux fume |
| WEL TWA (mg/m ³) | 0.05 mg/m ³ |
| WEL STEL (mg/m ³) | 0.15 mg/m ³ |
| Remark (WEL) | Sen (Capable of causing occupational asthma. See paragraphs 53–56) |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

8.1.2. Recommended monitoring procedures

No additional information available

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

| Butanone (78-93-3) | |
|--|---------------------------|
| DNEL/DMEL (Workers) | |
| Long-term - systemic effects, dermal | 1161 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 600 mg/m ³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects, oral | 31 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 106 mg/m ³ |
| Long-term - systemic effects, dermal | 412 mg/kg bodyweight/day |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 55.8 mg/l |
| PNEC aqua (marine water) | 55.8 mg/l |
| PNEC aqua (intermittent, freshwater) | 55.8 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 284.74 mg/kg dwt |
| PNEC sediment (marine water) | 284.74 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 22.5 mg/kg dwt |
| PNEC (Oral) | |
| PNEC oral (secondary poisoning) | 1000 mg/kg food |
| PNEC (STP) | |
| PNEC sewage treatment plant | 709 mg/l |

| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | |
|---|--------------------------|
| DNEL/DMEL (Workers) | |
| Long-term - systemic effects, dermal | 773 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 2035 mg/m ³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects, oral | 699 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 608 mg/m ³ |
| Long-term - systemic effects, dermal | 699 mg/kg bodyweight/day |

| Cyclohexane (110-82-7) | |
|--|---------------------------|
| DNEL/DMEL (Workers) | |
| Acute - systemic effects, inhalation | 1400 mg/m ³ |
| Acute - local effects, inhalation | 1400 mg/m ³ |
| Long-term - systemic effects, dermal | 2016 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 700 mg/m ³ |
| Long-term - local effects, inhalation | 700 mg/m ³ |

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| DNEL/DMEL (General population) | |
|--|---------------------------|
| Acute - systemic effects, inhalation | 412 mg/m ³ |
| Acute - local effects, inhalation | 412 mg/m ³ |
| Long-term - systemic effects, oral | 59.4 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 206 mg/m ³ |
| Long-term - systemic effects, dermal | 1186 mg/kg bodyweight/day |
| Long-term - local effects, inhalation | 206 mg/m ³ |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0.207 mg/l |
| PNEC aqua (marine water) | 0.207 mg/l |
| PNEC aqua (intermittent, freshwater) | 0.207 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 16.68 mg/kg dwt |
| PNEC sediment (marine water) | 16.68 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 3.38 mg/kg dwt |
| PNEC (STP) | |
| PNEC sewage treatment plant | 3.24 mg/l |

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Provide good ventilation in process area to prevent formation of vapour. If user operations generate vapour or dust, use process enclosures, local exhaust ventilation or other engineering controls to minimise worker exposure. Ensure exposure is below occupational exposure limits (where available). Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

8.2.2.1. Eye and face protection

Eye protection:

Safety goggles. Standard EN 166 - Personal eye-protection.

8.2.2.2. Skin protection

Skin and body protection:

Long-sleeved protective clothing

Hand protection:

Wear protective gloves if skin contact is possible. Standard EN 374 - Protective gloves against chemicals. Recommended: Nitrile rubber gloves. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves should be removed and replaced if there are any signs of degradation or breakthrough.

8.2.2.3. Respiratory protection

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Type ABEK-P3 filter is recommended. Standard EN 14387 - Gas filter(s), combined filter(s) and full face mask - EN 136.

8.2.2.4. Thermal hazards

Thermal hazard protection:

Not required for normal conditions of use.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Assure that emissions are compliant with all applicable air pollution control regulations. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Other information:

Do not eat, drink or smoke during use. Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|--|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Colour | : Various colours. |
| Odour | : Acetone. |
| Odour threshold | : No data available |
| pH | : No data available |
| pH solution | : 7 – 8 |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : 56 °C |
| Flash point | : -22 °C (closed cup) |
| Auto-ignition temperature | : 200 °C |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : 0.86 (20°C), (Water = 1) |
| Solubility | : In water, material is partially soluble. |
| Log Pow | : No data available |
| Viscosity, kinematic | : > 20.5 mm ² /s |
| Viscosity, dynamic | : No data available |
| Explosive properties | : May form flammable/explosive vapour-air mixture. |
| Oxidising properties | : Not oxidising. |
| Explosive limits | : 0.6 – 13 vol % |

9.2. Other information

VOC content : ≤ 700 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7). Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

10.3. Possibility of hazardous reactions

May form flammable/explosive vapour-air mixture.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong oxidising agents.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Nitrogen oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

| | |
|-----------------------------|--|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |

Butanone (78-93-3)

| | |
|---------------------|--|
| LD50 oral, rat | 2193 mg/kg bw/day (Read-across, CAS 78-92-2) |
| LD50 dermal, rabbit | > 10 ml/kg |

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

| | |
|-----------------------------|-----------------------|
| LC50 inhalation, rat (mg/l) | > 25.2 mg/l - 4 Hours |
|-----------------------------|-----------------------|

Cyclohexane (110-82-7)

| | |
|-----------------------------|---|
| LD50 oral, rat | > 5000 mg/kg bodyweight (OECD 401 method) |
| LD50 dermal, rabbit | > 2000 mg/kg bodyweight (OECD 402 method) |
| LC50 inhalation, rat (mg/l) | > 32.88 mg/l (OECD 403 method) |

Acetone (67-64-1)

| | |
|----------------|-----------------------|
| LD50 oral, rat | 5800 mg/kg bodyweight |
|----------------|-----------------------|

Zinc oxide (1314-13-2)

| | |
|-----------------------------|-------------------------|
| LD50 oral, rat | > 2000 mg/kg bodyweight |
| LD50 dermal, rat | > 2000 mg/kg bodyweight |
| LC50 inhalation, rat (mg/l) | > 5.7 mg/l - 4 Hours |

n-hexane (110-54-3)

| | |
|----------------------------|------------------------|
| LD50 oral, rat | 16000 mg/kg bodyweight |
| LC50 inhalation, rat (ppm) | > 5000 ppm - 24 Hours |

Rosin (8050-09-7)

| | |
|---------------------|-------------------------|
| LD50 oral, rat | > 2000 mg/kg bodyweight |
| LD50 dermal, rabbit | > 2000 mg/kg bodyweight |

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| | |
|-----------------------------------|--|
| Skin corrosion/irritation | : Causes skin irritation. |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitisation | : May cause an allergic skin reaction. |
| Germ cell mutagenicity | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |
| Carcinogenicity | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |
| Reproductive toxicity | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |
| STOT-single exposure | : May cause drowsiness or dizziness. |

Butanone (78-93-3)

| | |
|----------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |
|----------------------|------------------------------------|

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

| | |
|----------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |
|----------------------|------------------------------------|

Cyclohexane (110-82-7)

| | |
|----------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |
|----------------------|------------------------------------|

Acetone (67-64-1)

| | |
|----------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |
|----------------------|------------------------------------|

n-hexane (110-54-3)

| | |
|----------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |
|----------------------|------------------------------------|

| | |
|------------------------|--|
| STOT-repeated exposure | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |

n-hexane (110-54-3)

| | |
|------------------------|--|
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
|------------------------|--|

| | |
|------------------------|--|
| Aspiration hazard | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |

2990 HYPALON Adhesive

| | |
|----------------------|---------------------------|
| Viscosity, kinematic | > 20.5 mm ² /s |
|----------------------|---------------------------|

| | |
|---|---|
| Potential adverse human health effects and symptoms | : Causes serious eye irritation, Causes skin irritation, May cause an allergic skin reaction, May cause drowsiness or dizziness, Nausea, Ingestion may cause discomfort, May cause stomach pain or vomiting if ingested |
|---|---|

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|--|
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : Toxic to aquatic life with long lasting effects. |

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Butanone (78-93-3) | |
|---------------------------|--|
| LC50 fish | 2993 mg/l - 96 Hours (Pimephales promelas) |
| EC50 Daphnia | 308 mg/l - 48 Hours (Daphnia magna) |
| ErC50 algae | 1972 mg/l - 96 Hours (Pseudokirchneriella subcapitata) |
| NOEC chronic algae | 1240 mg/l - 96 Hours (Pseudokirchneriella subcapitata) |

| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | |
|---|---|
| LC50 fish | 11.4 mg/l - 96 Hours (Oncorhynchus mykiss, WAF) |
| EC50 Daphnia | 3 mg/l - 48 Hours (Daphnia magna, WAF) |
| ErC50 algae | 30 mg/l - 72 Hours (Pseudokirchneriella subcapitata, WAF) |
| NOEC chronic fish | 2.045 mg/l - 28 days (Oncorhynchus mykiss, QSAR) |
| NOEC chronic algae | 3 mg/l - 72 Hours (Pseudokirchneriella subcapitata, WAF, Growth rate) |

| Cyclohexane (110-82-7) | |
|-------------------------------|--|
| LC50 fish | 4.53 mg/l - 96 Hours - Pimephales promelas (OECD 203 method) |
| EC50 Daphnia | 0.9 mg/l - 48 Hours - Daphnia magna (OECD 202 method) |
| EC50 72h - Algae [1] | 3.428 mg/l - 72 Hours, Biomass - Pseudokirchneriella subcapitata (OECD 201 method) |
| EC50 72h - Algae [2] | > 4.425 mg/l - 72 Hours, Growth rate - Pseudokirchneriella subcapitata (OECD 201 method) |
| NOEC chronic algae | 0.952 mg/l - 72 Hours, Growth rate - Pseudokirchneriella subcapitata (OECD 201 method) |

| Acetone (67-64-1) | |
|------------------------------|---|
| LC50 fish | 5540 mg/l - 96 Hours (Oncorhynchus mykiss) |
| LC50 other aquatic organisms | 8800 mg/l - 48 Hours (Daphnia pulex) |
| NOEC chronic crustacea | 2212 mg/l -28 days (Daphnia pulex, reproduction) |
| NOEC chronic algae | 530 mg/l - 8 days (Microcystis aeruginosa, Biomass) |

| Zinc oxide (1314-13-2) | |
|-------------------------------|---|
| LC50 fish | 0.169 – 0.78 mg/l |
| EC50 Daphnia | 0.147 – 0.53 mg/l (Ceriodaphnia dubia) |
| NOEC chronic crustacea | 0.014 - 0.4 mg/l (freshwater), 0.0056 - 0.9 mg/l (marine water) |
| NOEC chronic algae | 0.019 mg/l (freshwater), 0.0078 - 0.67 mg/l (marine water) |
| IC50, algae, acute | 0.136 mg/l (72 Hours, Selenastrum capricornutum, Growth rate) |

| n-hexane (110-54-3) | |
|----------------------------|---|
| LC50 fish | 12.51 mg/l - 96 Hours (Growth, QSAR) |
| EC50 Daphnia | 21.85 mg/l - 48 Hours (Mobility, QSAR) |
| ErC50 algae | 9.285 mg/l - 48 Hours (QSAR) |
| NOEC chronic fish | 2.8 mg/l - 28 days (Growth, QSAR) |
| NOEC chronic crustacea | 4.888 mg/l - 28 days (reproduction, QSAR) |
| NOEC chronic algae | 2.077 mg/l - 48 Hours (Growth rate, QSAR) |

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Rosin (8050-09-7) | |
|--------------------------|--|
| LC50 fish | 1.7 mg/l - 96 Hours |
| EC50 Daphnia | 1.6 mg/l - 48 Hours |
| ErC50 algae | 39.6 mg/l - 72 Hours (Pseudokirchneriella subcapitata) |
| LL50 | < 10 mg/l (96 Hours, Danio rerio, WAF) |
| EL50 | 911 mg/l (48 Hours, Daphnia magna, WAF) |
| NOELr | 750 mg/l (48 Hours, Daphnia magna, WAF) |

12.2. Persistence and degradability

| 2990 HYPALON Adhesive | |
|-------------------------------|---------------------------|
| Persistence and degradability | No information available. |

| Butanone (78-93-3) | |
|-------------------------------|------------------------|
| Persistence and degradability | Readily biodegradable. |

| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | |
|---|------------------------|
| Persistence and degradability | Readily biodegradable. |

| Cyclohexane (110-82-7) | |
|-------------------------------|------------------------|
| Persistence and degradability | Readily biodegradable. |

| Acetone (67-64-1) | |
|-------------------------------|----------------------------------|
| Persistence and degradability | Readily biodegradable. |
| Biodegradation | 90 % -28 days (OECD 301B method) |

| Zinc oxide (1314-13-2) | |
|-------------------------------|--|
| Persistence and degradability | Not relevant for inorganic substances. |

| Rosin (8050-09-7) | |
|-------------------------------|------------------------|
| Persistence and degradability | Readily biodegradable. |

12.3. Bioaccumulative potential

| 2990 HYPALON Adhesive | |
|------------------------------|---------------------------|
| Bioaccumulative potential | No information available. |

| Butanone (78-93-3) | |
|---------------------------|------------|
| Log Pow | 0.3 (40°C) |

| Cyclohexane (110-82-7) | |
|-------------------------------|-----------------|
| BCF - Fish [1] | 167 l/kg (QSAR) |
| Log Pow | 3.44 (20°C) |

| Acetone (67-64-1) | |
|--------------------------|--------------------------|
| Log Pow | -0.23 (calculated value) |

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| | |
|---------------------------|---|
| Bioaccumulative potential | Based on the n-octanol/water partition coefficient accumulation in organisms is not expected. |
|---------------------------|---|

| | |
|-------------------------------|--|
| Zinc oxide (1314-13-2) | |
| Bioaccumulative potential | Not relevant for inorganic substances. |

| | |
|----------------------------|------------|
| n-hexane (110-54-3) | |
| BCF - Fish [1] | 501 (QSAR) |
| Log Pow | 4 (20 °C) |

| | |
|--------------------------|-----------------------------|
| Rosin (8050-09-7) | |
| Log Pow | > 3 - <= 6.2 (pH > 6 - < 7) |

12.4. Mobility in soil

| | |
|------------------------------|---------------------------|
| 2990 HYPALON Adhesive | |
| Ecology - soil | No information available. |

| | |
|---------------------------|----------------------|
| Butanone (78-93-3) | |
| Ecology - soil | Miscible with water. |

| | |
|-------------------------------|-------------------------|
| Cyclohexane (110-82-7) | |
| Log Koc | 2.89 (calculated value) |

| | |
|--------------------------|----------------------|
| Acetone (67-64-1) | |
| Mobility in soil | Mobile |
| Ecology - soil | Miscible with water. |

| | |
|----------------------------|-------------|
| n-hexane (110-54-3) | |
| Log Koc | 3.34 (QSAR) |

| | |
|--------------------------|----------------------|
| Rosin (8050-09-7) | |
| Log Koc | 0.8759 – 5.37 (QSAR) |

12.5. Results of PBT and vPvB assessment

| | |
|--|--|
| 2990 HYPALON Adhesive | |
| This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII | |
| This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII | |

12.6. Other adverse effects

No additional information available

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal. The correct waste code must be determined by the producer of the waste, based on how the waste has been produced.
- Additional information : Handle empty containers with care because residual vapours are flammable.
- Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1 UN number

- UN-No. (ADR) : UN 1133
- UN-No. (IMDG) : UN 1133
- UN-No. (IATA) : UN 1133

14.2. UN proper shipping name

- Proper Shipping Name : ADHESIVES
- Proper Shipping Name (IMDG) : ADHESIVES
- Proper Shipping Name (IATA) : Adhesives
- Transport document description (ADR) : UN 1133 ADHESIVES, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS
- Transport document description (IMDG) : UN 1133 ADHESIVES, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
- Transport document description (IATA) : UN 1133 Adhesives, 3, II, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

- Transport hazard class(es) (ADR) : 3
- Hazard labels : 3



IMDG

- Transport hazard class(es) (IMDG) : 3
- Danger labels (IMDG) : 3



IATA

- Transport hazard class(es) (IATA) : 3
- Danger labels (IATA) : 3



2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.4. Packing group

Packing group : II
Packing group (IMDG) : II
Packing group (IATA) : II

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Tunnel restriction code (ADR) : D/E

Transport by sea

No data available

Air transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

| Authorisations and/or restrictions on use (Annex XVII): | | |
|---|---|--|
| Reference code | Applicable on | Entry title or description |
| 3. | 2990 HYPALON Adhesive ; n-hexane ; Butanone ; Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane ; Cyclohexane ; Acetone | Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008 |
| 3(a) | 2990 HYPALON Adhesive ; n-hexane ; Butanone ; Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane ; Cyclohexane ; Acetone | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F |
| 3(b) | 2990 HYPALON Adhesive ; n-hexane ; Butanone ; Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane ; Cyclohexane ; Acetone | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10 |
| 3(c) | 2990 HYPALON Adhesive ; n-hexane ; Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane ; Cyclohexane | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1 |
| 40. | 2990 HYPALON Adhesive ; n-hexane ; Butanone ; Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane ; Cyclohexane ; Acetone | Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. |
| 57. | Cyclohexane | Cyclohexane |

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : ≤ 700 g/l

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

| Abbreviations and acronyms: | |
|-----------------------------|---|
| | ADR (Accord européen relatif au transport international des marchandises Dangereuses par Route) |
| | BCF (Bioconcentration factor) |
| | CAS (Chemical Abstracts Service) number |
| | CLP (Classification, Labeling and Packaging) |
| | DNEL (Derived No Effect Level) |
| | EC (European Community) |
| | EC50 (Effective Concentration 50%) |
| | EN (European Norm) |
| | IARC (International Agency for Research on Cancer) |
| | IATA (International Air Transport Association) |
| | IBC (Intermediate Bulk Container) |
| | IMDG (International Maritime Dangerous Goods Code) |
| | IOELV (Indicative Occupational Exposure Limit) |
| | Koc (Soil adsorption coefficient) |
| | LC50 (Lethal Concentration 50%) |
| | LD50 (Lethal Dose 50%) |
| | OECD (Organisation for Economic Co-operation and Development) |
| | OEL (Occupational exposure limit) |
| | NOEC (No Observed Effect Concentration) |
| | PBT (Persistent, Bioaccumulative and Toxic) |
| | PNEC (Predicted No Effect Concentration) |
| | QSAR (Quantitative Structure-Activity Relationship) |
| | REACH (Registration, Evaluation and Authorisation of CHemicals) |
| | SCOEL (Scientific Committee on Occupational Exposure Limits) |
| | STEL (Short Term Exposure Limit) |
| | STP (Sewage treatment plant) |
| | TWA (Time Weighted Average) |
| | UNxxxx (Number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods) |
| | UVCB (Unknown or Variable composition, Complex reaction products or Biological materials) |

2990 HYPALON Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| | |
|--|---|
| | vPvB (very Persistent and very Bioaccumulative) |
| | WAF (Water Accommodated Fraction) |

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : Classification procedure according to Regulation (EC) No. 1272/2008 [CLP]: Physical hazards: On basis of test data. Health hazards: Calculation method. Environmental hazards: Calculation method.

| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2 |
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Repr. 2 | Reproductive toxicity, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| STOT RE 2 | Specific target organ toxicity — Repeated exposure, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Narcosis |
| 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. |

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.