

DELTA D377 Thread Sealant

Product code: D377

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

1.1. Product identifier

D377 Thread Sealant

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

Use of the substance/mixture

Adhesives, sealants

Uses advised against

any non-intended use.

1.3. Details of the supplier of the safety data sheet

| Company name: | Delta Adhesives Limited |
|--------------------------|-------------------------------------------------------------------------|
| Place: | Units 39-40 Claycliffe Business Park, Barnsley, S75 1JU, United Kingdom |
| Telephone: | +44 (0)1226 381571 |
| Internet: | www.delta-adhesives.co.uk |
| Responsible Department: | sales@delta-adhesives.co.uk |
| 1.4. Emergency telephone | +44 (0)1226 381571 (Mon-Fri, 08:00-16:00) |
| number: | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: Xi - Irritant, N - Dangerous for the environment R phrases: Irritating to eyes, respiratory system and skin. May cause sensitisation by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS classification

Hazard categories: Skin corrosion/irritation: Skin Irrit. 2 Serious eye damage/eye irritation: Eye Irrit. 2 Respiratory/skin sensitization: Skin Sens. 1 Specific target organ toxicity - single exposure: STOT SE 3 Hazardous to the aquatic environment: Aquatic Chronic 2 Hazard Statements: Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label

Polyglycol dimethacrylate dodecyl methacrylate tetradecyl methacrylate

Signal word: Warning Pictograms: GHS07-GHS09



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Hazard statements

| H315 | Causes skin irritation. |
|------|--------------------------------------------------|
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| H411 | Toxic to aquatic life with long lasting effects. |

Precautionary statements

| aanonany olaloinioi | |
|---------------------|----------------------------------------------------------------------------------------|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if |
| | present and easy to do. Continue rinsing. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P312 | Call a POISON CENTER/doctor if you feel unwell. |
| P501 | Dispose of contents/container to in accordance with official regulations. |
| | |

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| EC No | Chemical name | Quantity |
|--------------|---------------------------------------------------------------------------------------------------------|-------------|
| CAS No | Classification | - |
| Index No | GHS classification | |
| REACH No | | |
| | Polyglycol dimethacrylate | 40 - < 45 % |
| 25852-47-5 | R43-52-53 | |
| | Skin Sens. 1, Aquatic Chronic 3; H317 H412 | |
| 205-570-6 | dodecyl methacrylate | 10 - < 15 % |
| 142-90-5 | Xi - Irritant, N - Dangerous for the environment R36/37/38-50-53 | |
| 607-247-00-9 | Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Aquatic Acute 1, Aquatic Chronic 1; H319 H335 H315 H400 H410 | |
| 219-835-9 | tetradecyl methacrylate | 5 - < 10 % |
| 2549-53-3 | Xi - Irritant R36/38-43 | |
| | Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1; H319 H315 H317 | |
| 204-055-3 | 2'-Phenylacetohydrazide | <1 % |
| 114-83-0 | T - Toxic, Xi - Irritant R25-36/37/38-43 | |
| | Acute Tox. 3, Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Skin Sens. 1; H301 H319 H335 H315 H317 | |

Full text of R and H phrases: see Section 16.

Further Information

Product does not contain listed SVHC substances.

SECTION 4: First aid measures



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4.1. Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. Call a POISON CENTER or doctor/physician.

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

No information available.

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

Dry extinguishing powder. Foam. Water spray. Carbon dioxide (CO2).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical resistant suit. In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray/stream to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/vapour/spray. Avoid contact with skin, eye and clothing. Wear personal protection equipment. (refer to chapter 8)

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Prevent spreading over great surfaces (e.g. by damming or installing oil booms). In case of leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area.



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Treat the assimilated material according to the section on waste disposal. Clear contaminated area thoroughly.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation. Wear suitable protective clothing. (Refer to chapter 8.)

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

Do not breathe gas/vapour/spray. Avoid contact with skin, eye and clothing. General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep container dry.

Advice on storage compatibility

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances.

Further information on storage conditions

Protect against: Light. UV-radiation/sunlight. heat. cooling. moisture.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

To date, no national limit values exist.

8.2. Exposure controls



Appropriate engineering controls

In case of open handling, use devices with built-in suction where possible. If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Remove contaminated clothing immediatley and dispose off safely. Wash contaminated clothing prior to re-use. Used working clothes should not be used outside the work area. Street clothing should be stored seperately from work clothing. Protect skin by using skin protective cream.

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses. DIN EN 166

Hand protection

Pull-over gloves of rubber. DIN EN 374



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Suitable material: (Breakthrough time >= 480 min, penetration time (maximum wearing period): 160 min) CR (polychloroprenes, Chloroprene rubber). (0,5 mm) FKM (fluororubber). (0,4 mm) Butyl rubber. (0,5 mm) Before using check leak tightness / impermeability. In case of reutilization, clean gloves before taking off and store in well-aired place. In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Skin protection

Suitable protection of the body: Lab apron.

Respiratory protection

Respiratory protection required in case of: insufficient ventilation. Generation/formation of aerosols Generation/formation of mist Suitable respiratory protective equipment: Combination filter device (DIN EN 141).. Type : A / P2/P3 The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

Environmental exposure controls

Do not empty into drains or the aquatic environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | Physical state: | liquid | • | |
|---|------------------------------------------|----------------|----------------|-------------|
| | Colour: | Yellow | | |
| | Odour: | characteristic | | |
| | | | | Test method |
| | pH-Value: | | not determined | |
| | Changes in the physical state | | | |
| | Melting point: | | not determined | |
| | Initial boiling point and boiling range: | | not determined | |
| | Flash point: | | not determined | |
| | Explosive properties none/none | | | |
| | Lower explosion limits: | | not determined | |
| | Upper explosion limits: | | not determined | |
| | Oxidizing properties none/none | | | |
| | Vapour pressure: | | not determined | |
| | Density: | | not determined | |
| | Viscosity / dynamic: | | not determined | |
| 9 | 2. Other information | | | |
| | N In the foregoing the second line build | | | |

No information available.

SECTION 10: Stability and reactivity



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10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Protect against: Light. UV-radiation/sunlight. heat. cooling. moisture.

10.5. Incompatible materials

Materials to avoid: Strong acid. Oxidizing agents, strong. Alkalis (alkalis), concentrated.

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

Based on available data, the classification criteria are not met.

Acute toxicity

| CAS No | Chemical name | | | | |
|----------|-------------------------|--------|-----------|---------|--------|
| | Exposure routes | Method | Dose | Species | Source |
| 114-83-0 | 2'-Phenylacetohydrazide | | | | |
| | oral | LD50 | 270 mg/kg | Mouse. | |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (Polyglycol dimethacrylate), (tetradecyl methacrylate), (2'-

Phenylacetohydrazide)

Respiratory or skin sensitisation:

People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

STOT-single exposure

May cause respiratory irritation. (dodecyl methacrylate), (2'-Phenylacetohydrazide)

Severe effects after repeated or prolonged exposure

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No information available.

SECTION 12: Ecological information

12.1. Toxicity



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No data available 12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|-----------|-------------------------|---------|
| 142-90-5 | dodecyl methacrylate | 6,68 |
| 2549-53-3 | tetradecyl methacrylate | 7,66 |

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

Do not empty into drains or the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Waste disposal according to official state regulations. Consult the local waste disposal expert about waste disposal. Cleaned containers may be recycled.

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances Classified as hazardous waste.

Waste disposal number of used product

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances Classified as hazardous waste.

Contaminated packaging

Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

| <u>14.1. UN number:</u> | UN 3082 |
|-----------------------------------|----------------------------------------------------------------------------|
| 14.2. UN proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dodecyl methacrylate) |
| 14.3. Transport hazard class(es): | 9 |



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| 14.4. Packing group: | III | |
| Hazard label: | 9 | |
| | All | |
| | | |
| Classification code: | M6 | |
| Special Provisions: | 274 335 601 | |
| Limited quantity: | 5 L | |
| Transport category: | 3 | |
| Hazard No: | 90 E | |
| Tunnel restriction code: | _ | |
| Other applicable information (land tra Excepted quantity: E1 | insport) | |
| Inland waterways transport (ADN) | | |
| <u>14.1. UN number:</u> | UN 3082 | |
| 14.2. UN proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (dodecyl methacrylate) | 5. |
| 14.3. Transport hazard class(es): | 9 | |
| 14.4. Packing group: | 111 | |
| Hazard label: | 9 | |
| | | |
| Classification code: | M6 | |
| Special Provisions: | 274 335 601 | |
| Limited quantity: | 5 L | |
| Other applicable information (inland v Excepted quantity: E1 | waterways transport) | |
| Marine transport (IMDG) | | |
| <u>14.1. UN number:</u> | UN 3082 | |
| 14.2. UN proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (dodecyl methacrylate) | i. |
| 14.3. Transport hazard class(es): | 9 | |
| 14.4. Packing group: | III | |
| Hazard label: | 9 | |
| | All | |
| | 9 | |
| Marine pollutant: | YES | |
| Special Provisions: Limited quantity: | 274, 335 5 L | |
| EmS: | 5 L F-A, S-F | |
| Other applicable information (marine Excepted quantity: E1 | | |
| Air transport (ICAO) | | |
| <u>14.1. UN number:</u> | UN 3082 | |



| | DELTA D377 Thread Sealant | |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------|
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| 14.2. UN proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dodecyl methacrylate) | |
| 14.3. Transport hazard class(es): | 9 | |
| 14.4. Packing group: | III | |
| Hazard label: | 9 | |
| | | |
| | 9 | |
| Special Provisions: Limited quantity Passenger: | A97 A158 30 kg G | |
| IATA-packing instructions - Passenger: | 964 | |
| IATA-packing instructions - Passenger. IATA-max. quantity - Passenger: | 904 450 L | |
| IATA-packing instructions - Cargo: | 964 | |
| IATA-max. quantity - Cargo: | 450 L | |
| Other applicable information (air tran | isport) | |
| Passenger-LQ: Y964 Excepted quantity: E1 | | |
| 4.5. Environmental hazards | | |
| ENVIRONMENTALLY HAZARDOUS: | yes | |
| | | |
| Danger releasing substance: | dodecyl methacrylate | |
| 4.6. Special precautions for user refer to chapter 6-8 | | |
| • | nex II of MARPOL73/78 and the IBC Code | |
| ECTION 15: Regulatory information | n | |
| 5.1. Safety, health and environmental r | egulations/legislation specific for the substance or mixture | |
| EU regulatory information | | |
| 1999/13/EC (VOC): | No information available. VOC Directive 2004/42/EC: No information av | /ailable. |
| Additional information | | |
| The preparation is dangero | us in the sense of Directive 1999/45/EC. | |
| | us in the sense of regulation (EC) No 1272/2008 [GHS]. | |
| | nger control following severe accidents with dangerous substances: Appe | endix I, |
| Part 2, No 9ii, siehe Störfall REACH 1907/2006 Append | | |
| | | |
| National regulatory information | Observe employment restrictions for young people | |
| Employment restrictions: | Observe employment restrictions for young people. 2 - water contaminating | |
| Water contaminating class (D): | | |
| Water contaminating class (D): 5.2. Chemical safety assessment | - | |

Changes

Rev. 1,00, 16.12.2014, Initial release



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Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations

Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

Full text of R phrases referred to under Sections 2 and 3

| 25 | Toxic if swallowed. |
|----|---------------------|

- 36/37/38 Irritating to eyes, respiratory system and skin.
- 36/38 Irritating to eyes and skin.
- 43 May cause sensitisation by skin contact.
- 50 Very toxic to aquatic organisms.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 52 Harmful to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.

Full text of H statements referred to under Sections 2 and 3

- H301 Toxic if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)