

SAFETY DATA SHEET ACCORDING TO (EC) REGULATION NO. 1907/2006

REV 03 APRIL 2015

SECTION 1: IDENTIFICATION OF SUBSTANCE/MIXTURE AND COMPANY/MANUFACTURER

1.1 Product identification D506 AIR BRAKE PIPE SEALANT Product Code: D506 Contains: Hydroxyethyl / propyl methacrylate

1.2 Relevant uses identified for the substance or mixture and recommended uses

ANAEROBIC ADHESIVE, SEALANT, BLOCKING AGENT

Type of product: ESTER METHACRYLATE BASED ADHESIVE Does not contain substances listed in RoHS and WEEE

1.3 Information on the safety data sheet supplier Delta Adhesives Limited Units 39-40 Claycliffe Business Park, Barnsley, United Kingdom S75 1JU TELEPHONE ++44 (0)1226 381571 FAX ++44 (0)1226 381722 E_MAIL info@delta-adhesives.co.uk WEBSITE www.delta-adhesives.co.uk

1.4 Emergency telephone number Poison Centre ++44(0)1226 381571 (Mo-Fr, 08.00-16.00)

SECTION 2: IDENTIFICATION OF HAZARDS

2.1 Classification of substance or mixture
Classification pursuant to 1272/2008 (CLP)
Skin Irrit 2; H315 Causes Skin Irritation
Skin Sens. 1; H317 - May cause an allergic skin reaction.
Eye Irrit. 2; H319 Causes severe eye irritation.
STOT SE 3: H335 May cause irritation to respiratory airways.

Classification according to Directive 67/548 / EEC or 1999/45 / EC Xi - Irritant R36/37/38 Irritating to eyes, respiratory system and skin. Sensitization: R43 May cause sensitization by skin contact

2.2 Label elements Label elements (CLP)



| Warning | CAUTION | |
|----------------------|----------------|--|
| Indication of hazard | H315 | Causes skin irritation. |
| | H317 | May cause an allergic skin reaction. |
| | H319 | Causes severe eye irritation. |
| | H335 | May irritate the respiratory tract. |
| Precautionary advice | P102 | Keep out of the reach of children. |
| | P261 | Avoid breathing vapours. |
| | P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| | P302+P352 | If on skin: wash with plenty of soap and water. |
| | P305+P351+P338 | If in eyes: rinse cautiously with water for several minutes. Remove contact lenses if they can |
| | | easily be removed. Continue rinsing. |
| | P312 | Call a POISON CENTRE or doctor/physician if you feel unwell. |
| | P403+P233 | Keep the container tightly closed in a well-ventilated place. |

Label elements (DPD 1999/45 / EC)



| Warning | IRRITANT | |
|-----------|------------|---|
| R-phrases | R 36/37/38 | Irritating to eyes, respiratory system and skin. |
| | R 43 | May cause sensitization by skin contact |
| S phrases | S 2 | Keep out of the reach of children. |
| | S 24/25 | Avoid eye and skin contact. |
| | S 26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| | S 28 | After contact with skin, wash immediately with plenty of soap and water. |
| | S 37/39 | Wear suitable gloves and eye / face protection. |
| | S 51 | Use only in well ventilated areas. |

Special labelling

Text for labelling:

Contains acid methacrylic, monoester with propane1.2-diol, methacrylate 2-hydroxyethyl and 1-acetyl-2-phenylhydrazine.

2.3 Other hazards

The product is not hazardous when used in accordance with the recommendations of use.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Classification of the substance or mixture Not applicable

3.2 Mixtures

Chemical characterization: Adhesives based on hydroxyethyl methacrylate / hydroxypropyl acrylate

Hazardous Ingredients

| Ingredient | Designation | Contents | Classification DPD / CLP |
|-----------------------|-----------------------------|-----------|---|
| EINECS 248-666-3 | Hydroxypropyl acrylate | 20 - 40 % | EU: Xi; R36. Sens.; R43. |
| CAS 27813-02-1 | | | CLP: Eye Irrit. 2; H319. |
| | | | Skin Sens. 1; H317. |
| EINECS 212-782-2 | 2-Hydroxyethyl Methacrylate | 5 - 10 % | EU: Sens.; R43. Xi; R36/38. |
| CAS 868-77-9 | | | CLP: Skin Irrit. 2; H315. |
| | | | Eye Irrit. 2; H319. Skin Sens. 1; H317. |
| REACH | Cumene hydroperoxide | < 1 % | EU: O; R7. T; R23. C; R34. |
| 01-2119475796-19-xxxx | | | N; R51-53. Xn; R21/22. |
| EINECS 201-254-7 | | | Xn; R48/20/22. |
| CAS 80-15-9 | | | CLP: Org. Perox. EF; H242. |
| | | | Acute Tox. 4; H302. |
| | | | Acute Tox. 4; H312. |
| | | | Acute Tox. 3; H331. |
| | | | Skin Corr. 1A; H314. |
| | | | STOT RE 2; H373. |
| | | | Aquatic Chronic 2; H411. |
| EINECS 204-055-3 | 1-Acetyl-2-phenylhydrazine | <0.1 % | EU: Xn; R21. Xn; R68/22. |
| CAS 114-83-0 | | | Sens.; R43. |
| | | | CLP: Acute Tox. 4; H312. |
| | | | Skin Sens. 1; H317. |
| | | | STOT SE 2; H371. |

For the full text of the R and H phrases see section 16 (More info)

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1 Inhalation: Accompany the person/s concerned in the open air Respiratory difficulties: consult a doctor.

4.2 Contact with skin: Wash with soap and water. Wash immediately with plenty of soap and water.

If skin becomes irritated consult a physician.

4.3 Contact with eyes: Rinse open eyes immediately for 10 to 15 minutes, rinse with running water. Subsequently consult an eye doctor.

4.4 Ingestion: Rinse mouth, ingest 2-3 glasses of water and seek medical advice. Do NOT induce vomiting.

4.2. Major symptoms and effects, both acute and delayedEYES: Irritation, conjunctivitis.SKIN: Redness, hives, rash, irritation.RESPIRATORY: Irritation, coughing, wheezing, tightness in the chest.

4.3 Indication of the need for immediate medical attention and special treatment See section: Description of first aid measures SECTION 5: FIRE-PREVENTION MEASURES 5.1 Suitable extinguishing agents Water spray, carbon dioxide, dry chemical powder, foam

5.2 Special dangers arising from the substance or mixture The following may arise in case of fire: smoke, sulphur oxides, nitrogen oxides (NOx), carbon monoxide and carbon dioxide.

5.3 Recommendations for fire-fighters

Special protective equipment for fire-fighters: Use an auto-respirator. Wear suitable protective clothing. Additional information: Prevent extinguishing water from flowing into surface and groundwater.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Provide adequate ventilation. Avoid contact with skin and eyes. Do not inhale vapours.

6.2 Environmental precautions Prevent penetration in soil, waterways or sewage systems.

6.3 Containment and clean-up methods and materials Absorb the liquid with absorbent materials (sand, sawdust, soil, acid binders, universal binder), and place in closed containers for disposal. Hazardous waste. The contaminated area must be cleaned with soap and water. Clean the floor and all contaminated objects.

Additional information: High risk of slipping due to spillage / product capsizes.

6.4 Reference to other sections Refer to sections 8 and 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handlingInformation for safe handling:Ensure proper ventilation of storage and work areas.Ensure cleanliness in the workplace.Avoid contact with skin and eyes.Use automated application systems.

7.2 Safe storage conditions, including incompatibilities

Requirements for storage and containers:

Keep container tightly closed and dry. Protect from moisture. Keep only in the original container. Do not fill return product in the original container. Storage temperature: <25°C Storage advice: Do not store with oxidizing agents. Storage class: 10 = Combustible liquids not in LGK 3 7.3 Specific end uses No information available.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

Additional information: Does not contain substances with a limit value for occupational exposure.

8.2 Limitation and exposure control Use only in well-ventilated areas.

Limitation and exposure control in the workplace. Respiratory protection: Respiratory protection is required in case of vapours, . Use a type A filter according to EN 14387.

Hand protection: Protective gloves against chemical agents EN 374, in nitrile rubber (according to EN 754). Replace worn or contaminated gloves. Minimum thickness of gloves 0.7 mm Tightly sealed safety glasses according to EN 166: Eye Protection Body Protection: Wear suitable protective clothing.

Health and safety measures: Remove all contaminated clothing immediately.

Avoid inhalation of vapours/spray. Avoid contact with skin and eyes. Preventive skin protection.

Do not eat or drink in the workplace.

Wash hands before breaks and at end of work shifts.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

To enable the adoption of proper control measures, provide all relevant information on the substance or preparation, particularly the information listed in paragraph 9.2. The information in this section should correspond to that which is provided upon registration, where required.

9.1. General information Appearance: Liquid / Dense Paste Colour: Off White Odour: Characteristic pH: NOT APPLICABLE / AVAILABLE Boiling point / boiling range: NOT APPLICABLE / AVAILABLE Flash point: NOT APPLICABLE / AVAILABLE Flammability (solid/gas): NOT APPLICABLE / AVAILABLE Explosive properties: NOT APPLICABLE / AVAILABLE Oxidizing properties: NOT APPLICABLE / AVAILABLE Vapour pressure: NOT APPLICABLE / AVAILABLE Relative density: NOT APPLICABLE / AVAILABLE Solubility: Immiscible with water Solubility in water: NOT SOLUBLE IN WATER Partition coefficient n-octanol/water NOT APPLICABLE / AVAILABLE Viscosity: 15 - 300.000 mPa.s (20 rpm at 20°C) Specific gravity (g/ml): 1.02 / 1.06 Vapour density: NOT APPLICABLE / AVAILABLE Evaporation rate: NOT APPLICABLE / AVAILABLE 9.2. Further Information: No data available

SECTION 10: STABILITY AND REACTIVITY 10.1 Reactivity: See Section 10.3

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions Reacts with strong acids and oxidizing agents.

10.4 Conditions to be avoided Keep away from heat.

10.5 Incompatible materials
Oxidizing agents, strong reducing agents, acids
10.6 Hazardous decomposition products
If heated or in case of fire: toxic fumes. In case of fire: sulphur oxides, nitrogen oxides (NOx), carbon monoxide and carbon dioxide.
Decomposition thermal: No data available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Reactivity

| ACUTE TOXICITY | | | |
|-----------------------------|------------|--|---|
| INGREDIENT | CAS | TYPICAL VALUES | VALUE - SPECIES |
| Cumene hydroperoxide | 80-15-9 | ORAL - LD 50 / 4 HOURS INHALATION - LC 50 / 4 HOURS DERMAL - LD 50 / 4 HOURS | 382 mg/Kg - RAT 220 ppm - RAT 500 mg/Kg - RAT |
| Hydroxypropyl acrylate | 27813-02-1 | ORAL - LD50 DERMAL - LD50 | > 5,000 mg/Kg - RAT > 5,000 mg/Kg - RABBIT |
| 2-Hydroxyethyl Methacrylate | 868-77-9 | ORAL - LD50 DERMAL - LD50 | 5,564 mg/Kg - RAT > 3,000 mg/Kg - RABBIT |
| 1-Acetyl-2-Phenylhydrazine | 114-83-0 | ORAL - LD50 | 270 mg/Kg - MOUSE |

CORROSION - SKIN IRRITATION

| INGREDIENT | CAS | RESULT | SPECIES |
|-----------------------------|----------|--------------------------|---------|
| Cumene hydroperoxide | 80-15-9 | SKIN - CORROSIVE | RABBIT |
| 2-Hydroxyethyl Methacrylate | 868-77-9 | SKIN 24 HOURS - IRRITANT | RABBIT |
| 1-Acetyl-2-Phenylhydrazine | 114-83-0 | SKIN 24 HOURS - IRRITANT | RABBIT |

GERM CELL MUTAGENICITY

| INGREDIENT | CAS | RESULT | SPECIES - REFERENCE |
|----------------------|---------|---------------------|----------------------------|
| Cumene hydroperoxide | 80-15-9 | POSITIVE / NEGATIVE | MOUSE - OECD guideline 471 |

LD50 oral:> 5000 mg / kg ((estimated)) Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalation): Lack of data.

Skin corrosion: Lack of data.

Eye damage / irritation: Eye Irrit. 2; H319 = Causes severe eye irritation.

Respiratory sensitization: Lack of data.

Skin sensitisation: Skin Sens 1; H317 = May cause an allergic skin reaction. Germ cell mutagenicity / genotoxicity: Lack of data. Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on breastfeeding or via breastfeeding: Lack of data. Specific toxicity for target organs (single exposure): Lack of data. Specific toxicity for target organs (repeated exposure): Lack of data. Danger of inhalation: Lack of data.

SECTION 12: ENVIRONMENTAL INFORMATION 12.1 Toxicity

Hazard class for water: 1 = slightly hazardous

| INGREDIENT | CAS | TYPICAL VALUES |
|-----------------------------|------------|---|
| Cumene hydroperoxide | 80-15-9 | Toxicity to fish LC50 - Oncorhynchus mykiss (Rainbow trout) - 3.9 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 16 mg/l - 24 h Persistence and degradability: Biotic / Aerobic biodegradability Readily biodegradable. Method: Closed bottle test |
| Hydroxypropyl acrylate | 27813-02-1 | Toxicity to fish Continuous flow test - Leuciscus Idus - 493 mg/l - 48 h Bacterial toxicity: EC 10 Pseudomonas putida - 1,140 mg/l - 16 h Persistence and degradability: Aerobic biodegradability Chemical oxygen demand Result: 94% - Readily biodegradable. Method: Closed bottle test |
| 2-Hydroxyethyl Methacrylate | 868-77-9 | Toxicity to fish Continuous flow test - Pimephales promelas (Fathead minnow) - 227 mg/l - 96 h Persistence and degradability: Aerobic biodegradability Chemical oxygen demand Result: 84% - Readily biodegradable. Method: Closed bottle test |
| 1-Acetyl-2-Phenylhydrazine | 114-83-0 | No data available |

12.2. Persistence and degradability Additional information: No data available

12.3 Partition coefficient n-octanol/water No data available

12.4 Mobility in soil no data available

12.5 Results of PBT and vPvB assessments no data available

12.6 Other adverse effects

General notes: Do not allow penetration in soil, waterways or sewage systems.

SECTION 13: DISPOSAL RECOMMENDATIONS 13.1 Waste treatment methods

Waste code (Directive 2008/98 / EC, decision 2001/118 / EC)

08 04 09: waste adhesives and sealants containing organic solvents or other hazardous substances. Depending on the sector and production process, other EURAL hazardous waste codes may also be applicable according to Directive 2008/98 / EC.

Disposal methods: Disposal of product: Dispose of in accordance with all applicable local and national regulations. This product's contribution to waste is absolutely insignificant in comparison to the manufactured product on which it is used.

Packaging / Container: After usage, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in approved landfills, or incinerated. Disposal must be conducted according to official regulations.

Waste code: 08 04 09 waste adhesives and sealants containing organic solvents and other hazardous substances.

SECTION 14: DISPOSAL RECOMMENDATIONS

14.1 UN number Not applicable - Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR

14.2 UN proper shipping name Not limited - Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR

14.3 UN proper shipping name Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR

14.4 Packing group Not applicable - Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR

14.5 Environmental hazards Marine pollutant - IMDG: No 14.6 Special precautions for users Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No data available

SECTION 15: REGULATORY INFORMATION

Specific safety, health and environmental regulations / legislation for the substance or mixture Volatile organic compounds (VOCs): 0 % (1999/13 / EC)

15.2 Chemical safety assessment The chemical safety assessment was not performed.

SECTION 16: OTHER INFORMATION Additional information

Abbreviations

PBT = persistent, bioaccumulative and toxic substances DSD Dangerous Substance Directive - Directive on Hazardous Substances DPD Dangerous Preparation Directive - Directive on Hazardous Preparations CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

Full text of H-phrases referred to under Sections 2 and 3:

H226 = Flammable liquid and vapours.

H242 = Risk of fire due to heating.

H302 = Harmful if swallowed.

H312 = Harmful in contact with skin.

H314 = Causes severe skin burns and serious damage to eyes.

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H319 = Causes severe eye irritation.

H331 = Toxic if inhaled.

H332 = Toxic if inhaled.

H371 = May cause damage to organs.

H373 = May cause damage to organs in case of prolonged or repeated exposure.

H400 = Extremely toxic to aquatic life.

H411 = Toxic to aquatic life with long lasting effects.

R text phrases mentioned in Sections 2 and 3:

R 7 = May cause a fire.

R 10 = Flammable

R 20/21/22 = Harmful by inhalation, ingestion and skin contact.

R 21 = Harmful in contact with skin.

R 21/22 = Harmful in contact with skin and if swallowed.

R 23 = Toxic by inhalation.

R 34 = Causes burns.

R 35 = Causes severe burns.

R 36 = Irritating to eyes.

R 36/38 = Irritating to eyes and skin.

R 43 = May cause sensitization by contact with skin.

R 48/20/22 = Harmful: danger of serious damage to health in the case of prolonged exposure by inhalation and if swallowed.

R 50 = Highly toxic to aquatic organisms.

R 51/53 = Toxic to aquatic organisms, can cause long-term adverse effects.

R 68/22 = Harmful: possibility of adverse irreversible effects if ingested.

UPDATED DATA IN ACCORDANCE WITH SPECIFICATIONS FROM THE JOINT RESEARCH CENTRE - ESIS: European Chemical Substances Information System For abbreviations and acronyms, see ECHA

The information contained refers to the specific identified materials. DELTA considers this information reliable at the time of writing of the SDS. It is the responsibility of the user to verify the validity of the product's characteristics in relation to production needs, and to take all necessary measures for the protection of people and property from situations that may occur through the product's implementation. DELTA does not recognize any explicit and/or tacit liability for damages of any kind, incidental or arising from the inappropriate use of the product, including lost revenues. This safety data sheet was prepared in accordance with Directive 67/548 / EEC and subsequent amendments, Directive 1999/45 / EC, EC Regulation 1907/2006 and provides information relative to the safe use of the product.