



SAFETY DATA SHEET

Conductive Thermoplastic Caulk

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name Conductive Thermoplastic Caulk

Product number 72-11007

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

Identified uses Conductive Caulk.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Chomerics Europe Parker Hannifin Ltd., Seal Group
Unit 6 Century Point
Halifax Road, High Wycombe
Bucks, HP12 3SL
United Kingdom

Manufacturer Parker Hannifin France SAS
Etablissement de Saint-Ouen-L'Aumône.
6/8 Avenue du Vert Galant
95310 Saint-Ouen L'Aumône
FRANCE
+ 33 134 32 39 00

1.4. Emergency telephone number

Emergency telephone 001-352-323-3500 (INFOTRAC - US) (24h)

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 Muta. 1B - H340 Carc. 1B - H350
Repr. 2 - H361d STOT SE 3 - H335, H336 STOT RE 1 - H372

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) F; R11. T; R48/23/24/25. Xi; R36/37/38. Carc. Cat. 2 R45. Muta. Cat. 2 R46. Repr. Cat. 3
R63. R67, R43

2.2. Label elements

Conductive Thermoplastic Caulk

Pictogram



Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapour.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H340 May cause genetic defects.
 H350 May cause cancer.
 H361d Suspected of damaging the unborn child.
 H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

P201 Obtain special instructions before use.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P260 Do not breathe vapour/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with national regulations.

Contains

Toluene, Nickel, Graphite, Naphtha (petroleum), solvent-refined light >0.1 benzene

Supplementary precautionary statements

P202 Do not handle until all safety precautions have been read and understood.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing vapour/spray.
 P264 Wash contaminated skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P314 Get medical advice/attention if you feel unwell.
 P321 Specific treatment (see medical advice on this label).
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.

2.3. Other hazards

Conductive Thermoplastic Caulk

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Toluene	25 - <50%
CAS number: 108-88-3	EC number: 203-625-9

Classification

Flam. Liq. 2 - H225
 Repr. 2 - H361d
 Asp. Tox. 1 - H304
 STOT RE 2 - H373
 Skin Irrit. 2 - H315
 STOT SE 3 - H336

Classification (67/548/EEC or 1999/45/EC)

Xn; R48/20, R65. Xi; R38. Repr. Cat. 3 R63. R67

Nickel	25 - <50%
CAS number: 7440-02-0	EC number: 231-111-4

Classification

Skin Sens. 1 - H317
 Carc. 2 - H351
 STOT RE 1 - H372

Classification (67/548/EEC or 1999/45/EC)

T; R48/23. Carc. Cat. 3 R40. R43

Graphite	10 - <25%
CAS number: 7782-42-5	EC number: 231-955-3

Classification

Eye Irrit. 2 - H319
 STOT SE 3 - H335

Classification (67/548/EEC or 1999/45/EC)

Xi; R36/37

Naphtha (petroleum), solvent-refined light >0.1 benzene	1 - <2.5%
CAS number: 64741-84-0	EC number: 265-086-6

Classification

Muta. 1B - H340
 Carc. 1B - H350
 Asp. Tox. 1 - H304

Classification (67/548/EEC or 1999/45/EC)

Xn; R65. Carc. Cat. 1 R45. Muta. Cat. 1 R46

Quartz (SiO₂)	0.5 - <1%
CAS number: 14808-60-7	EC number: 238-878-4

Classification

STOT RE 1 - H372

Classification (67/548/EEC or 1999/45/EC)

T; R48/23

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Xylene 0.5 - <1%		
CAS number: 1330-20-7	EC number: 215-535-7	REACH registration number: 01-2119488216-32-XXXX
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315		Classification (67/548/EEC or 1999/45/EC) Xn; R20/21. Xi; R38. R10
Ethylbenzene 0.5 - <1%		
CAS number: 100-41-4	EC number: 202-849-4	
Classification Flam. Liq. 2 - H225 Acute Tox. 4 - H332 STOT RE 2 - H373 Asp. Tox. 1 - H304		Classification (67/548/EEC or 1999/45/EC) F; R11. Xn; R65, R20, R48/20/21/22
Vinyl acetate 0.5 - <1%		
CAS number: 108-05-4	EC number: 203-545-4	
Classification Flam. Liq. 2 - H225 Acute Tox. 4 - H332 Carc. 2 - H351 STOT SE 3 - H335		Classification (67/548/EEC or 1999/45/EC) F; R11. Xn; R20. Xi; R37. Carc. Cat. 3 R40

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 immediately. Show this Safety Data Sheet to the medical personnel.
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. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person.
Skin contact	It is important to remove the substance from the skin immediately. In the event of any sensitisation symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognised skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.

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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	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Irritation of nose, throat and airway. Difficulty in breathing. Coughing. Vapours may cause headache, fatigue, dizziness and nausea. Central nervous system depression. Prolonged or repeated exposure may cause the following adverse effects: May cause cancer.
Ingestion	May cause discomfort if swallowed. Prolonged or repeated exposure may cause the following adverse effects: May cause cancer.
Skin contact	Allergic rash. Irritating to skin. Prolonged or repeated exposure may cause the following adverse effects: May cause cancer.
Eye contact	Irritating to eyes.

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

Notes for the doctor Treat symptomatically. May cause sensitisation or allergic reactions in sensitive individuals.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
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	Containers can burst violently or explode when heated, due to excessive pressure build-up. Flammable liquid and vapour. Vapours may be ignited by a spark, a hot surface or an ember. Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Fire-water run-off in sewers may create fire or explosion hazard.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours. Carbon dioxide (CO ₂). Carbon monoxide (CO). Hydrocarbons. Aldehydes.

5.3. Advice for firefighters

Protective actions during firefighting	Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions

Evacuate area. No smoking, sparks, flames or other sources of ignition near spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. Use suitable respiratory protection if ventilation is inadequate. Do not touch or walk into spilled material. Follow precautions for safe handling described in this safety data sheet. Promptly remove any clothing that becomes contaminated. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions

Environmental precautions

Immiscible with water. Aquatic toxicity is unlikely to occur. However, large or frequent spills may have hazardous effects on the environment. Avoid discharge into drains or watercourses or onto the ground. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

If leakage cannot be stopped, evacuate area. Eliminate all ignition sources if safe to do so. Do not allow material to enter confined spaces, due to the risk of explosion. Wear protective clothing as described in Section 8 of this safety data sheet. Approach the spillage from upwind. Contain and absorb spillage with sand, earth or other non-combustible material. The contaminated absorbent may pose the same hazard as the spilled material. Place waste in labelled, sealed containers. Flush contaminated area with plenty of water. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Pregnant or breastfeeding women should not work with this product if there is any risk of exposure. Read and follow manufacturer's recommendations. Keep away from food, drink and animal feeding stuffs. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective clothing as described in Section 8 of this safety data sheet. Use explosion-proof electrical, ventilating and lighting equipment. Take precautionary measures against static discharges. Handle all packages and containers carefully to minimise spills. Do not handle broken packages without protective equipment. Keep container tightly sealed when not in use. Do not reuse empty containers.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Eliminate all sources of ignition. Take precautionary measures against static discharges. Keep away from oxidising materials, heat and flames. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep containers upright. Bund storage facilities to prevent soil and water pollution in the event of spillage.

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.

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SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Toluene

Long-term exposure limit (8-hour TWA): WEL 50 ppm 191 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 384 mg/m³

Sk

Quartz (SiO₂)

Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m³ respirable dust

Xylene

Long-term exposure limit (8-hour TWA): WEL 50 ppm 220 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 441 mg/m³

Sk

Ethylbenzene

Long-term exposure limit (8-hour TWA): WEL 100 ppm 441 mg/m³

Short-term exposure limit (15-minute): WEL 125 ppm 552 mg/m³

Sk

Vinyl acetate

Long-term exposure limit (8-hour TWA): WEL 5 ppm 17.6 mg/m³

Short-term exposure limit (15-minute): WEL 10 ppm 35.2 mg/m³

Sk = Can be absorbed through the skin.

WEL = Workplace Exposure Limit

Xylene (CAS: 1330-20-7)

DNEL

Workers - Inhalation; Short term local effects: 289 mg/m³

Workers - Inhalation; Short term systemic effects: 289 mg/m³

Workers - Inhalation; Long term systemic effects: 77 mg/m³

Workers - Dermal; Long term systemic effects: 180 mg/kg/day

Consumer - Inhalation; Short term local effects: 174 mg/m³

Consumer - Inhalation; Short term systemic effects: 174 mg/m³

Consumer - Inhalation; Long term systemic effects: 14.8 mg/m³

Consumer - Dermal; Long term systemic effects: 108 mg/kg/day

Consumer - Oral; Long term systemic effects: 1.6 mg/kg/day

PNEC

- Fresh water; 0.327 mg/l

- Marine water; 0.327 mg/l

- Intermittent release; 0.327 mg/l

- STP; 6.58 mg/l

- Sediment (Freshwater); 12.46 mg/kg

- Sediment (Marinewater); 12.46 mg/kg

- Soil; 2.31 mg/kg

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls	Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Use explosion-proof ventilating equipment. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Polyethylene. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber). To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapour filter. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly.
Environmental exposure controls	Keep container tightly sealed when not in use. 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	Paste.
Colour	Grey.
Odour	Solvent.
Odour threshold	No information available.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	1.6°C
Evaporation rate	Not determined.
Flammability (solid, gas)	Not relevant.

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Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	>1
Relative density	1.59
Solubility(ies)	Insoluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Viscous liquid.
Explosive properties	Not determined.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Volatility	40%
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SECTION 10: Stability and reactivity

10.1. Reactivity

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

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	The following materials may react strongly with the product: Oxidising agents.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Static electricity and formation of sparks must be prevented.
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10.5. Incompatible materials

Materials to avoid	Oxidising materials. Acids - oxidising. Alkalies. Chemically-active metals. Epoxides.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD ₅₀)	Based on available data the classification criteria are not met.
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Acute toxicity - dermal

Notes (dermal LD ₅₀)	Based on available data the classification criteria are not met.
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Acute toxicity - inhalation

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Notes (inhalation LC₅₀)	Based on available data the classification criteria are not met.
<u>Skin corrosion/irritation</u>	
Animal data	Irritating.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Causes serious eye irritation.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	May cause skin sensitisation or allergic reactions in sensitive individuals.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	May cause genetic defects.
<u>Carcinogenicity</u>	
Carcinogenicity	May cause cancer.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Suspected of damaging the unborn child.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	STOT SE 3 - H335, H336 May cause respiratory irritation. May cause drowsiness or dizziness.
Target organs	Respiratory system, lungs Central nervous system
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	STOT RE 1 - H372 Causes damage to organs through prolonged or repeated exposure.
<u>Aspiration hazard</u>	
Aspiration hazard	Based on available data the classification criteria are not met.
General information	Avoid contact during pregnancy/while nursing. May cause cancer after repeated exposure. Risk of cancer depends on duration and level of exposure. May cause genetic defects. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Irritation of nose, throat and airway. Difficulty in breathing. Coughing. Vapours may cause headache, fatigue, dizziness and nausea. Central nervous system depression.
Ingestion	Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.
Skin contact	Redness. Irritating to skin.
Eye contact	Irritating to eyes.
Route of entry	Ingestion Inhalation Skin and/or eye contact
Target organs	Central nervous system Respiratory system, lungs
Medical considerations	Skin disorders and allergies.
<u>Toxicological information on ingredients.</u>	

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Toluene

Acute toxicity - oral

Species Rat

Notes (oral LD₅₀) REACH dossier information. Based on available data the classification criteria are not met.

Acute toxicity - dermal

Species Rat

Notes (dermal LD₅₀) REACH dossier information. Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Species Rat

Notes (inhalation LC₅₀) REACH dossier information. Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Dose: 0.5 mL, 4 hours, Rabbit Erythema/eschar score: Well defined erythema (2). Oedema score: Very slight oedema - barely perceptible (1). REACH dossier information. Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity NOAEC 1200 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOAEC 2000 ppm, Inhalation, Rat P REACH dossier information. Based on available data the classification criteria are not met.

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Reproductive toxicity - development Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 3 - H336 May cause drowsiness or dizziness.

Target organs Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure STOT RE 2 - H373 May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Aspiration hazard Aspiration hazard if swallowed.

Nickel

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >9000 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) NOAEC >10.2 mg/l, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Dose: 0.5 g, 4 hours, Rabbit Erythema/eschar score: Very slight erythema - barely perceptible (1). Oedema score: No oedema (0). REACH dossier information. Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Sensitising.

Carcinogenicity

Carcinogenicity Suspected of causing cancer by inhalation.

IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

NTP carcinogenicity Reasonably anticipated to be a human carcinogen.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure STOT RE 1 - H372 Causes damage to organs through prolonged or repeated exposure if inhaled.

Target organs Respiratory system, lungs

Graphite

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >2000 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Acute toxicity - inhalation

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Notes (inhalation LC₅₀) LD₅₀ >2000 mg/m³, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Dose: 0.5 g, 4 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Screening - NOAEL 813 mg/kg/day, Oral, Rat P REACH dossier information. Based on available data the classification criteria are not met.

Reproductive toxicity - development Developmental toxicity: - NOAEL: 930 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 3 - H335 May cause respiratory irritation.

Target organs Respiratory system, lungs

Aspiration hazard

Aspiration hazard Not relevant.

Naphtha (petroleum), solvent-refined light >0.1 benzene

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,001.0

Species Rat

Notes (oral LD₅₀) REACH dossier information. Based on available data the classification criteria are not met.

ATE oral (mg/kg) 5,001.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rabbit

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Notes (dermal LD₅₀) REACH dossier information. Based on available data the classification criteria are not met.

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Buehler test - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro May cause genetic defects.

Carcinogenicity

Carcinogenicity May cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOAEC >20000 mg/m³, Inhalation, Rat F1 REACH dossier information. Based on available data the classification criteria are not met.

Reproductive toxicity - development Maternal toxicity: - NOAEL: 23900 mg/m³, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEC >20000 mg/m³, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Aspiration hazard if swallowed.

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

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

Ecological information on ingredients.

Conductive Thermoplastic Caulk

Toluene

Toxicity	Based on available data the classification criteria are not met.
Acute toxicity - fish	LC ₅₀ , 96 hours: 5.5 mg/l, Oncorhynchus kisutch (Coho salmon)
Acute toxicity - aquatic invertebrates	LC ₅₀ , 48 hours: 3.78 mg/l, Ceriodaphnia dubia
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 207 mg/l, Chlorella vulgaris

Nickel

Toxicity	Based on available data the classification criteria are not met.
Acute toxicity - fish	LC ₅₀ , 96 hours: 15.3 mg/l, Onchorhynchus mykiss (Rainbow trout)

Graphite

Acute toxicity - fish	LC ₅₀ , 96 hours: >100 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: >100 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: >100 mg/l, Pseudokirchneriella subcapitata

Naphtha (petroleum), solvent-refined light >0.1 benzene

Acute toxicity - fish	LL ₅₀ , 96 hours: 8.2 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EL ₅₀ , 48 hours: 4.5 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EL ₅₀ , 72 hours: 3.1 mg/l, Selenastrum capricornutum

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Toluene

Persistence and degradability	The product is readily biodegradable.
Phototransformation	Air - DT ₅₀ : 2.59 days Estimated value.
Biodegradation	Water - Degradation 86%: 20 days

Nickel

Persistence and degradability	The product contains only inorganic substances which are not biodegradable.
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Conductive Thermoplastic Caulk

Graphite

Persistence and degradability The degradability of the product is not known.

Naphtha (petroleum), solvent-refined light >0.1 benzene

Persistence and degradability The product is readily biodegradable.

Biodegradation Water - Degradation 77%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

Toluene

Bioaccumulative potential BCF: 90, Leuciscus idus (Golden orfe)

Partition coefficient log Pow: 2.73

Nickel

Bioaccumulative potential BCF: 70, Tetraslmis tetrathele

Graphite

Bioaccumulative potential No data available on bioaccumulation.

Naphtha (petroleum), solvent-refined light >0.1 benzene

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

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

Ecological information on ingredients.

Toluene

Mobility The product is soluble in water.

Nickel

Mobility No data available.

Graphite

Mobility The product is partly soluble in water and may spread in the aquatic environment.

Naphtha (petroleum), solvent-refined light >0.1 benzene

Conductive Thermoplastic Caulk

Mobility

The product contains substances which are insoluble in water and which may spread on water 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.

Toluene

Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

Nickel

Results of PBT and vPvB assessment

Substance is inorganic. Not relevant.

Graphite

Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

Naphtha (petroleum), solvent-refined light >0.1 benzene

Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects

None known.

Ecological information on ingredients.

Naphtha (petroleum), solvent-refined light >0.1 benzene

Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible. Vapour from residual product may create a highly flammable or explosive atmosphere inside the container. Containers should be thoroughly emptied before disposal because of the risk of an explosion.

SECTION 14: Transport information

Conductive Thermoplastic Caulk

14.1. UN number

UN No. (ADR/RID)	1133
UN No. (IMDG)	1133
UN No. (ICAO)	1133
UN No. (ADN)	1133

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ADHESIVES
Proper shipping name (IMDG)	ADHESIVES
Proper shipping name (ICAO)	ADHESIVES
Proper shipping name (ADN)	ADHESIVES

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels



14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	2
Emergency Action Code	•3YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)

Conductive Thermoplastic Caulk

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

SECTION 15: Regulatory information

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

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010. 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 (as amended). Dangerous Preparations Directive 1999/45/EC. Dangerous Substances Directive 67/548/EEC.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information

Training advice	Only trained personnel should use this material.
Revision date	16/06/2015
Revision	1
Supersedes date	04/03/2011
SDS number	2647

Conductive Thermoplastic Caulk

Risk phrases in full

R10 Flammable.
R11 Highly flammable.
R20 Harmful by inhalation.
R20/21 Harmful by inhalation and in contact with skin.
R36/37 Irritating to eyes and respiratory system.
R36/37/38 Irritating to eyes, respiratory system and skin.
R37 Irritating to respiratory system.
R38 Irritating to skin.
R40 Limited evidence of a carcinogenic effect.
R43 May cause sensitisation by skin contact.
R45 May cause cancer.
R46 May cause heritable genetic damage.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R48/23/24/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R63 Possible risk of harm to the unborn child.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.

Hazard statements in full

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H340 May cause genetic defects.
H350 May cause cancer.
H351 Suspected of causing cancer by inhalation.
H351 Suspected of causing cancer if swallowed.
H361d Suspected of damaging the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.
H373 May cause damage to organs (Hearing organs) through prolonged or repeated exposure.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.