

Delta D504 Copper Anti-Seize Spray

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name	Delta D504 Copper Anti-Seize Spray
Product number	D504
Container size	400ml

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

Identified uses	Engineering Anti-Seize Grease
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1.3. Details of the supplier of the safety data sheet

Supplier	Delta Adhesives Ltd Units 39-41 Claycliffe Business Park Cannon Way Barugh Green Barnsley South Yorkshire S75 1JU Tel: 01226 381 571 Fax: 01226 381 722 Web: www.delta-adhesives.co.uk
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1.4. Emergency telephone number

Emergency telephone	Delta Adhesives Ltd +44 (0) 1226 381 571 (Mon-Fri 09:00 - 17:00)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Aerosol 1 - H222, H229
Health hazards	Skin Irrit. 2 - H315 STOT SE 3 - H336
Environmental hazards	Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

Human health	Vapours and spray/mists in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
Environmental	The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
Physicochemical	Pressurised container: Must not be exposed to temperatures above 50°C. The product is extremely flammable.

2.2. Label elements

Pictogram



Signal word

Danger

Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: may burst if heated.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing vapour/ spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/ container in accordance with national regulations.

Contains

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

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS <0.1% 1,3 BUTADIENE CAS number: 68476-85-7 EC number: 270-704-2	30-60%
Classification Flam. Gas 1 - H220 Press. Gas (Liq.) - H280	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane CAS number: — EC number: 921-024-6 REACH registration number: 01-2119475514-35-XXXX	10-30%
Classification Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	

COPPER PASTE

1-5%

CAS number: 7440-50-8

EC number: 231-159-6

REACH registration number: 01-
2119480154-42-XXXX

M factor (Acute) = 10

M factor (Chronic) = 1

Classification

Acute Tox. 4 - H302

Aquatic Acute 1 - H400

Aquatic Chronic 1 - H410

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	Move affected person to fresh air at once.
Inhalation	Move affected person to fresh air at once. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues.
Skin contact	Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

General information	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.
Inhalation	Coughing, chest tightness, feeling of chest pressure. Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	Prolonged contact may cause redness and/or tearing.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media** Extinguish with foam, carbon dioxide or dry powder.**Unsuitable extinguishing media** Do not use water, if avoidable.**5.2. Special hazards arising from the substance or mixture**

Specific hazards	Containers can burst violently when heated, due to excess pressure build-up. Vapours may form explosive mixtures with air. Containers can burst violently or explode when heated, due to excessive pressure build-up. Extremely flammable. Forms explosive mixtures with air. Risk of explosion if heated. May form explosive mixture with air at very high concentration. Vapours may form explosive mixtures with air. Containers can burst violently or explode when heated, due to excessive pressure build-up.
Hazardous combustion products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
5.3. Advice for firefighters	
Protective actions during firefighting	Be aware of danger of explosion. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Containers close to fire should be removed or cooled with water.
Special protective equipment for firefighters	Use air-supplied respirator, gloves and protective goggles.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Usage precautions Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Remove contamination with soap and water or recognised skin cleansing agent. Do not use organic solvents. Do not eat, drink or smoke when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Keep away from heat, sparks and open flame. Store in tightly-closed, original container in a dry and cool place.

Storage class Extremely Flammable Aerosol

7.3. Specific end use(s)

Usage description Copper Based Anti-Seize Grease

SECTION 8: Exposure controls/Personal protection**8.1. Control parameters**

Occupational exposure limits**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS <0.1% 1,3 BUTADIENE**Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1750 mg/m³Short-term exposure limit (15-minute): WEL 1250 ppm 2180 mg/m³

WEL = Workplace Exposure Limit

Ingredient comments

WEL = Workplace Exposure Limits

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

Consumer - Oral; Long term systemic effects: 699 mg/kg/day

Workers - Oral; Long term systemic effects: 2035 mg/kg/day

Consumer - Dermal; Long term systemic effects: 699 mg/kg/day

Workers - Dermal; Long term systemic effects: 773 mg/kg/day

Consumer - Inhalation; Long term systemic effects: 608 mg/m³**8.2. Exposure controls****Protective equipment****Appropriate engineering controls**

No specific ventilation requirements. This product must not be handled in a confined space without adequate ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures

Use engineering controls to reduce air contamination to permissible exposure level. Wash promptly with soap and water if skin becomes contaminated. When using do not eat, drink or smoke.

Respiratory protection

No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Aerosol container containing a mixture of active ingredients, solvents and propellants
Colour	Bright copper
Odour	Organic solvents.
Odour threshold	Not available.
pH	Not relevant.
Melting point	Not available.
Initial boiling point and range	Not available.

Flash point	A flash point method is not available but the major hazardous component, the Propellant has a flash point of <-60°C with flammability limits of 10.9% vol. upper and 1.4% vol. lower.
Evaporation rate	Not available.
Evaporation factor	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Bulk density	Not available.
Solubility(ies)	Not relevant. Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	410-580°C
Decomposition Temperature	Not relevant.
Viscosity	Not relevant.
Explosive properties	In use may form flammable /explosive vapour-air mixture.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not known. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid exposing aerosol containers to high temperatures or direct sunlight.

10.5. Incompatible materials

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 11,091.39

General information Contains organic solvents

Inhalation May cause respiratory system irritation. Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Headache. Dizziness. Drowsiness.

Ingestion	May cause soreness and redness of mouth and throat.
Skin contact	Irritating to skin. Prolonged and frequent contact may cause redness and irritation.
Eye contact	Vapour or spray in the eyes may cause irritation and smarting.
Acute and chronic health hazards	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. Narcotic effect.
Route of exposure	Inhalation Skin absorption
Target organs	Central nervous system Respiratory system, lungs
Medical symptoms	Narcotic effect. Drowsiness. Dizziness. Arrhythmia (deviation from normal heart beat).

Toxicological information on ingredients.**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS <0.1% 1,3 BUTADIENE**

Toxicological effects	Information given is based on data of the components and of similar products.
<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	Not applicable.
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	Not applicable.
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	LC ₅₀ >20 mg/l, Inhalation, Rat
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Not irritating.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Not irritating.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Not sensitising.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	This substance has no evidence of mutagenic properties.
<u>Carcinogenicity</u>	
Carcinogenicity	Carcinogenicity in humans is not expected.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Does not contain any substances known to be toxic to reproduction.
<u>Specific target organ toxicity - single exposure</u>	

STOT - single exposure A single exposure may cause the following adverse effects: Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

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

Inhalation

May cause respiratory system irritation.

Skin contact

Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin.

Route of exposure

Inhalation Skin and/or eye contact

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

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

Skin corrosion/irritation

Skin corrosion/irritation Skin irritation.

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 Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

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

Specific target organ toxicity - single exposure

STOT - single exposure May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

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

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

Ecotoxicity The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment. Dangerous for the environment if discharged into watercourses. Avoid the spillage or runoff entering drains, sewers or watercourses.

Ecological information on ingredients.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS <0.1% 1,3 BUTADIENE

Ecotoxicity Information given is based on data of the components and of similar products.

12.1. Toxicity

Toxicity Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Ecological information on ingredients.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS <0.1% 1,3 BUTADIENE

Toxicity Not regarded as dangerous for the environment. The product is not believed to present a hazard due to its physical nature. Highly volatile.

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

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, : 1-10 mg/l, Fish
NOEC, : 1-10 mg/l, Fish

Acute toxicity - aquatic plants LC₅₀, : 10-100 mg/l, Algae

Acute toxicity - microorganisms LC₅₀, : 1-10 mg/l, Activated sludge
NOEC, : 0.1-1 mg/l, Activated sludge

12.2. Persistence and degradability

Persistence and degradability Biodegradable in part only.

Ecological information on ingredients.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS <0.1% 1,3 BUTADIENE

Persistence and degradability The product is readily biodegradable.

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

Persistence and degradability No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient Not available.

Ecological information on ingredients.PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS <0.1% 1,3 BUTADIENE

Bioaccumulative potential Bioaccumulation is unlikely.

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

Bioaccumulative potential Not available.

12.4. Mobility in soil

Mobility The product has poor water-solubility.

Ecological information on ingredients.PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS <0.1% 1,3 BUTADIENE

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

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Not determined

Ecological information on ingredients.PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS <0.1% 1,3 BUTADIENE

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not available.

Ecological information on ingredients.Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Other adverse effects The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations13.1. Waste treatment methods

General information Do not puncture or incinerate, even when empty. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Containers should be thoroughly emptied before disposal because of the risk of an explosion. Ensure container is empty and dispose of in accordance with Local Authority regulations. Do not pierce or incinerate even when container is empty.

Waste class Full or Partially Empty Aerosol: 16 05 04, Empty Aerosol: 15 01 10 (Containing hazardous residues), Empty Aerosol: 15 01 04 (No hazardous residues).

SECTION 14: Transport information

General

This product is packed in accordance with the Limited quantity Provisions of CDGCPL2, ADR and IMDG. These provisions allow the transport of aerosols of less than 1 litre packed in cartons of less than 30kg gross weight to be exempt from control providing they are labelled in accordance with the requirements of those regulations to show that they are transported as Limited Quantities. Aerosols not so packed must show the following.

14.1. UN number

UN No. (ADR/RID) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AEROSOLS

Proper shipping name (IMDG) AEROSOLS

Proper shipping name (ICAO) AEROSOLS

Proper shipping name (ADN) AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class 2, 5F

ADR/RID label 2.1

IMDG class 2.1

ICAO class/division 2.1

ICAO subsidiary risk 2.1

Transport labels**14.4. Packing group**

ADR/RID packing group #

IMDG packing group #

ICAO packing group #

14.5. Environmental hazardsEnvironmentally hazardous substance/marine pollutant
No.**14.6. Special precautions for user**

EmS F-D, S-U

Tunnel restriction code (D)

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

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

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824). 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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).
EU legislation	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). 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).
Guidance	ECHA: Guidance on the Compilation of safety data sheets. (V3.1, November 2015)
Authorisations (Title VII Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Title VIII Regulation 1907/2006)	No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Issued by	Technical Service Manager
Revision date	02/02/2018
Revision	6
Supersedes date	27/06/2012
SDS number	21859
Hazard statements in full	H220 Extremely flammable gas. H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H229 Pressurised container: may burst if heated. H280 Contains gas under pressure; may explode if heated. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. 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.

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.