



SAFETY DATA SHEET LEAD SUBSTITUTE

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

1.1. Product identifier

Product name	LEAD SUBSTITUTE
Product number	QFS300, QFS301, QWC116
UFI	UFI: FXY9-CW9N-DK4F-JM1T

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

Identified uses	Fuel additive.
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1.3. Details of the supplier of the safety data sheet

Supplier	TETROSYL EUROPE 79 rue du chemin vert 59.273 Fretin TEL: 03 20 28 06 30 qualite@tetrosyl-france.com
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Manufacturer	TETROSYL LIMITED Bury Lancashire England BL9 7NY 0161 764 5981 0161 797 5899 info@tetrosyl.com
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1.4. Emergency telephone number

Emergency telephone	+44 (0)161 764 5981 (24 hrs)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards	Not Classified
Health hazards	Eye Irrit. 2 - H319 Asp. Tox. 1 - H304
Environmental hazards	Not Classified

2.2. Label elements

Hazard pictograms



Signal word	Danger
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Hazard statements	H319 Causes serious eye irritation. H304 May be fatal if swallowed and enters airways.
Precautionary statements	P273 Avoid release to the environment. P280 Wear eye and face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor. P331 Do NOT induce vomiting. P405 Store locked up. P501 Dispose of contents/ container in accordance with local regulations. P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
UFI	UFI: FXY9-CW9N-DK4F-JM1T
Contains	DISTILLATES (PETROLEUM), HYDROTREATED LIGHT; KEROSENE - UNSPECIFIED, HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS, PETROLEUM DISTILLATES, HYDROTREATED LIGHT
Detergent labelling	≥ 30% aliphatic hydrocarbons

2.3. Other hazards

Not applicable.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT; KEROSENE - UNSPECIFIED	60-100%
CAS number: —	EC number: 926-141-6
Repeated exposure may cause skin dryness or cracking.	
Classification	
Asp. Tox. 1 - H304	
POTASSIUM 1,2-BIS(2-ETHYLHEXYLOXYCARBONYL)ETHANESULPHONATE	2-<3%
CAS number: 7491-09-0	EC number: 231-308-5
Classification	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	

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HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS			1-<2%
CAS number: —	EC number: 918-481-9	UK REACH registration number: UK-01-0468758243-9-0000	
Repeated exposure may cause skin dryness or cracking.			
Classification			
Flam. Liq. 3 - H226 Asp. Tox. 1 - H304			
PHENOL, (DIMETHYLAMINO)METHYL-, POLYISOBUTYLENE DERIVS.			1-<2%
CAS number: —	EC number: 937-027-0		
Classification			
Aquatic Chronic 3 - H412			
PETROLEUM DISTILLATES, HYDROTREATED LIGHT			1-<2%
CAS number: 64742-47-8	EC number: 265-149-8	UK REACH registration number: UK-01-9161676197-8-0000	
Classification			
Flam. Liq. 3 - H226 Asp. Tox. 1 - H304			
1,2,4-TRIMETHYLBENZENE			<0.1
CAS number: 95-63-6	EC number: 202-436-9		
Classification			
Flam. Liq. 3 - H226 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 Aquatic Chronic 2 - H411			
NAPHTHALENE			-<0.05
CAS number: 91-20-3	EC number: 202-049-5		
M factor (Acute) = 1	M factor (Chronic) = 1		
Classification			
Flam. Sol. 2 - H228 Acute Tox. 4 - H302 Carc. 2 - H351 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410			

The full text for all hazard statements is displayed in Section 16.

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Remove affected person from source of contamination. Keep the affected person warm and at rest. Get prompt medical attention.
Inhalation	Get medical attention if any discomfort continues. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention. Symptoms of lung oedema (shortness of breath) may develop up to 24 hours after exposure. Show this Safety Data Sheet to the medical personnel.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if a large quantity has been ingested. Show this Safety Data Sheet to the medical personnel.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Rinse with water. Get medical attention if irritation persists 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 15 minutes. Do not rub eye. Get medical attention promptly if symptoms occur after washing.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Effects may be delayed. Keep affected person under observation.
Inhalation	No specific symptoms known.
Ingestion	May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact	Skin irritation. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Blistering may occur.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. May cause blurred vision and serious eye damage.

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 the following media: Foam, carbon dioxide or dry powder. Water. Use fire-extinguishing media suitable for the surrounding fire.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	No specific precautions due to the small quantities handled. No unusual fire or explosion hazards noted.
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	No specific firefighting precautions known.
Special protective equipment for firefighters	Leave danger zone immediately.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions For personal protection, see Section 8. In case of spills, beware of slippery floors and surfaces. Avoid contact with eyes and prolonged skin contact. Provide adequate ventilation. Avoid inhalation of spray mist and contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely.

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 Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Avoid eating, drinking and smoking when using the product. Avoid contact with skin and eyes. Do not handle broken packages without protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep containers upright. Store in tightly-closed, original container. Keep away from heat, sparks and open flame.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

No exposure limits known for ingredient(s).

1,2,4-TRIMETHYLBENZENE

Long-term exposure limit (8-hour TWA): WEL 25 ppm 125 mg/m³

Short-term exposure limit (15-minute): WEL

NAPHTHALENE

Long-term exposure limit (8-hour TWA): 10 53

Short-term exposure limit (15-minute): 15 80

WEL = Workplace Exposure Limit.

POTASSIUM 1,2-BIS(2-ETHYLHEXYLOXYCARBONYL)ETHANESULPHONATE (CAS: 7491-09-0)

DNEL

Workers - Dermal; Long term systemic effects: 10 mg/kg

Workers - Inhalation; Long term systemic effects: 98.7 mg/m³

General population - Dermal; Long term systemic effects: 5 mg/kg

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

General population - Oral; Long term systemic effects: 5 mg/kg

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PNEC

Fresh water; 0.007 mg/l
 marine water; 0.001 mg/l
 Sediment (Freshwater); 0.525 mg/kg
 Sediment (Marinewater); 0.052 mg/kg
 Soil; 0.101 mg/kg
 STP; 122 mg/l

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

DNEL General population - Oral; Long term systemic effects: 18.75 mg/kg/day

PETROLEUM DISTILLATES, HYDROTREATED LIGHT (CAS: 64742-47-8)

DNEL General population - Oral; Long term systemic effects: 18.75 mg/kg/day

HYDROCARBON, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%)

DNEL

Workers - Dermal; Long term systemic effects: 44 mg/kg
 Workers - Inhalation; Long term systemic effects: 330 mg/m³
 Workers - Inhalation; Short term systemic effects: 570 mg/m³
 Workers - Inhalation; Long term local effects: 837.5 mg/m³
 General population - Dermal; Long term systemic effects: 26 mg/kg
 General population - Inhalation; Long term systemic effects: 71 mg/m³
 General population - Inhalation; Short term systemic effects: 570 mg/m³
 General population - Inhalation; Long term local effects: 178.57 mg/m³
 General population - Inhalation; Short term local effects: 640 mg/m³
 General population - Oral; Long term systemic effects: 26 mg/kg

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

DNEL

Workers - Dermal; Long term systemic effects: 0.95 mg/kg
 Workers - Inhalation; Long term systemic effects: 2.31 mg/m³
 General population - Dermal; Long term systemic effects: 0.28 mg/kg
 General population - Inhalation; Long term systemic effects: 0.69 mg/m³
 General population - Oral; Long term systemic effects: 2.1 mg/kg
 General population - Oral; Long term systemic effects: 4.23 mg/kg

PNEC

marine water; 0.001 mg/l
 Fresh water; 0.001 mg/l

(TETRAPROPENYL) SUCCINIC ACID (CAS: 27859-58-1)

DNEL

Workers - Dermal; Long term systemic effects: 0.7 mg/kg
 Workers - Inhalation; Long term systemic effects: 1.2 mg/m³
 General population - Dermal; Long term systemic effects: 0.3 mg/kg
 General population - Inhalation; Long term systemic effects: 0.3 mg/m³
 General population - Oral; Long term systemic effects: 0.2 mg/kg

PNEC

Fresh water; 0.1 mg/l
 marine water; 0.01 mg/l
 Sediment (Freshwater); 62.1 mg/kg
 Sediment (Marinewater); 62.1 mg/kg
 Soil; 12.4 mg/kg
 STP; 100 mg/l

NAPHTHA (PETROLEUM), HEAVY AROMATIC (CAS: 64742-94-5)

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DNEL	Workers - Dermal; Long term systemic effects: 0.95 mg/kg
	Workers - Inhalation; Long term systemic effects: 2.31 mg/m ³
	Workers - Inhalation; Long term local effects: 2.31 mg/m ³
	General population - Dermal; Long term systemic effects: 0.28 mg/kg
	General population - Inhalation; Long term systemic effects: 0.69 mg/m ³
PNEC	Fresh water; 0.001 mg/l
	marine water; 0.001 mg/l

DISTILLATES, HYDROTREATED HEAVY PARAFFINIC <3% DMSO EXTRACT (IP 346) (CAS: 64742-54-7)

DNEL	Workers - Inhalation; Long term systemic effects: 2.73 mg/m ³
	Workers - Dermal; Long term systemic effects: 0.97 mg/kg
	General population - Oral; Long term systemic effects: 0.74 mg/kg
	Workers - Inhalation; Long term local effects: 5.58 mg/m ³
	General population - Inhalation; Long term local effects: 1.19 mg/m ³

NAPHTHALENE (CAS: 91-20-3)

DNEL	Workers - Dermal; Long term systemic effects: 3.57 mg/kg
	Workers - Inhalation; Long term local effects: 25 mg/m ³
	Workers - Inhalation; Long term systemic effects: 25 mg/m ³
PNEC	Sediment (Freshwater); 0.0672 mg/kg
	Sediment (Marinewater); 0.0672 mg/kg
	STP; 2.9 mg/l
	Soil; 0.0533 mg/kg

NAPHTHALENE (CAS: 91-20-3)

DNEL	Workers - Dermal; Long term systemic effects: 3.57 mg/kg
	Workers - Inhalation; Long term systemic effects: 25 mg/m ³
	Workers - Inhalation; Long term local effects: 25 mg/m ³
PNEC	Fresh water; 0.0024 mg/l
	marine water; 0.0024 mg/l
	Sediment (Freshwater); 0.0672 mg/kg
	Sediment (Marinewater); 0.0672 mg/kg
	Soil; 0.0533 mg/kg
	STP; 2.9 mg/l

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC. <3% DMSO EXTRACT (CAS: 64742-53-6)

DNEL	Workers - Inhalation; Long term systemic effects: 2.73 mg/m ³
	General population - Oral; Long term systemic effects: 0.74 mg/kg
	Workers - Inhalation; Long term local effects: 5.58 mg/m ³
	Workers - Dermal; Long term systemic effects: 0.97 mg/kg
	General population - Inhalation; Long term local effects: 1.19 mg/m ³

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours and spray/mists. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Provide eyewash station.
Hygiene measures	Provide eyewash station and safety shower. Wash contaminated clothing before reuse. Wash promptly with soap and water if skin becomes contaminated.
Respiratory protection	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	Clear liquid.
Colour	Orange.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	175°C @
Flash point	73°C
Evaporation rate	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	0.808g/cm ³ @ 20°C
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	1 cSt @ 20°C

9.2. Other information

Other information	None.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react strongly with the product: Alkaline earth metals. Powdered metal.
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10.2. Chemical stability

Stability No particular stability concerns.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not applicable.

10.4. Conditions to avoid

Conditions to avoid Avoid heat. Avoid contact with the following materials: Strong oxidising agents.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

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

Acute toxicity - dermal

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

Acute toxicity - inhalation

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

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

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

Aspiration hazard

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Summary	Based on available data the classification criteria are not met.
Inhalation	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Medical considerations	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

SECTION 12: Ecological information

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

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish

LC₅₀, 96 hours: 2200 (DISTILLATES (PETROLEUM), HYDROTREATED LIGHT; KEROSENE – UNSPECIFIED) mg/l, Fish

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

12.4. Mobility in soil

Adsorption/desorption coefficient Not available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current UK criteria.

12.6. Other adverse effects

Other adverse effects Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Confirm disposal procedures with environmental engineer and local regulations.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

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Not applicable.

14.3. Transport hazard class(es)

Transport labels

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Issued by Regulatory Department

Revision date 02/09/2022

Revision 16

Supersedes date 25/01/2022

SDS status Approved.

Hazard statements in full H226 Flammable liquid and vapour.
H228 Flammable solid.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.