



Prestone



SAFETY DATA SHEET Redex Lead Replacement

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

1.1. Product identifier

Product name	Redex Lead Replacement
Product number	RADD0065A
Internal identification	NQA2449
UFI	UFI: 38S6-E007-T00V-DFAY
REACH registration notes	This is a MIXTURE; no registration information contained in this document . Holts are classed as Downstream User.

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

Identified uses Fuel additive.

1.3. Details of the supplier of the safety data sheet

Supplier	Holt Lloyd Services 52 Rue des 40 Mines, 60000 – Allonne, France Phone: +33 (0)3 64 99 00 32 info@holtsauto.com
Contact person	Contact Email address: info@holtsauto.com
Manufacturer	Holt Lloyd International Ltd Barton Dock Road Stretford Manchester M32 0YQ - England, UK +44 (0) 161 866 4800 FAX +44 (0) 161 866 4854 www.holtsauto.com

1.4. Emergency telephone number

Emergency telephone UK - 00 44 (0) 161 866 4800 Office hrs = 0900 - 1700 hrs

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National emergency telephone number +43 1 31304 5620; chemikalien@umweltbundesamt.at (Austria)
 +32022649636; info@poisoncentre.be (Belgium)
 +359 2 9154 409; poison_centre@mail.orbitel.bg (Bulgaria)
 +38514686910; toksikologija@hzjz.hr (Croatia)
 +35722405611; cy-chemregistry@dli.mlsi.gov.cy (Cyprus)
 +420267082257; biocidy@mzcr.cz (Czech Republic)
 +45 72 54 40 00; mst@mst.dk (Denmark)
 +372 794 3500; clp@terviseamet.ee, info@terviseamet.ee (Estonia)
 +358 5052 000; kirjaamo@tukes.fi (Finland)
 + 33 3 83 85 21 92; bnpc@chru-nancy.fr (France)
 +49-30-18412-0; bfr@bfr.bund.de (Germany)
 +302106479250; +302106479450; devxp.gcs@aade.gr, environment.gcs@aade.gr (Greece)
 +36 (1) 476 1135; clp.ca@nnk.gov.hu (Hungary)
 +354 543 22 22; eitur@landspitali.is (Iceland)
 +353 (1) 809 2166 / +353 (1) 809 2566; chemicalsinfo@beaumont.ie (Ireland)
 +390649906140; inscweb@iss.it (Italy)
 +371 67032600; lvgmc@lvgmc.lv (Latvia)
 +370 70662008; aaa@aaa.am.lt (Lithuania)
 +320 22649636; +352 24785551; info@poisoncentre.be; direction-sante@ms.etat.lu (Luxembourg)
 +356 2395 2000; info@mccaa.org.mt (Malta)
 +31 88 75 585 61; productnotificatie@umcutrecht.nl (The Netherlands)
 +4573580500; produktregisteret@miljodir.no / +47 21 07 70 00; folkehelseinstituttet@fhi.no (Norway)
 +48 42 2538 400; biuro@chemikalia.gov.pl (Poland)
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 +7 495 621 6885; +7 495 628 1687; rtiac@mail.ru; rtiac2003@yahoo.com (Russia)
 +421 2 5465 2307; ntic@ntic.sk (Slovakia)
 + 386 1 522 1293; gp.ukc@kclj.si (Slovenia)
 +34 917689800; intcf.doc@justicia.es (Spain)
 +46104566750; giftinformation@gic.se (Sweden)
 +44 121 507 4123; allistervale@npis.org, sallybradberry@npis.org (UK)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Flam. Liq. 3 - H226
Health hazards	Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H336 Asp. Tox. 1 - H304
Environmental hazards	Not Classified

2.2. Label elements

Hazard pictograms



Signal word

Danger

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Hazard statements	H226 Flammable liquid and vapour. H315 Causes skin irritation. H318 Causes serious eye damage. H336 May cause drowsiness or dizziness. H304 May be fatal if swallowed and enters airways.
Precautionary statements	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing vapour/ spray. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents/ container in accordance with national regulations.
UFI	UFI: 38S6-E007-T00V-DFAY
Contains	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics, Potassium 1,2-bis(2-ethylhexyloxycarbonyl)ethanesulphonate, Distillates (Petroleum), Hydrotreated, Light Kerosene, Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	60-100%
CAS number: 64742-48-9	EC number: 919-857-5
	REACH registration number: 01-2119463258-33-XXXX
Classification	
Flam. Liq. 3 - H226	
STOT SE 3 - H336	
Asp. Tox. 1 - H304	
Potassium 1,2-bis(2-ethylhexyloxycarbonyl)ethanesulphonate	5-10%
CAS number: 7491-09-0	EC number: 231-308-5
	REACH registration number: 01-2119919740-39-XXXX
Classification	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	

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Distillates (Petroleum), Hydrotreated, Light Kerosene 1-5% CAS number: 64742-47-8 EC number: 265-149-8 REACH registration number: 01-2119484819-18-XXXX
Classification Asp. Tox. 1 - H304
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics <1% CAS number: — EC number: 926-141-6 REACH registration number: 01-2119456620-43-XXXX
Classification Asp. Tox. 1 - H304

The full text for all hazard statements is 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. Get medical attention if any discomfort continues.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if symptoms are severe or persist.
Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Give plenty of water to drink. Get medical attention immediately.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

Inhalation	Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	May be fatal if swallowed and enters airways.
Skin contact	Causes skin irritation. Prolonged or repeated exposure may cause severe irritation.
Eye contact	Causes serious eye damage. Prolonged contact causes serious eye and tissue damage.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with the following media: Water spray, foam, dry powder or carbon dioxide.
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

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Specific hazards Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.

Hazardous combustion products Oxides of carbon.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid inhalation of vapours and contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment.

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. Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses.

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 Avoid spilling. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. Use approved respirator if air contamination is above an acceptable level.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Do not store near heat sources or expose to high temperatures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Advisory OEL. CEFIC-HSPA : 1200 mg/m³

Distillates (Petroleum), Hydrotreated, Light Kerosene

RCP-TWA (Vapour) : 150 ppm / 1200 mg/m³

Ingredient comments WEL = Workplace Exposure Limits

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (CAS: 64742-48-9)

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DNEL	Industry - Dermal; Long term : 208 mg/kg/day
	Industry - Inhalation; Long term : 871 mg/m ³
	Consumer - Dermal; Long term : 125 mg/kg/day
	Consumer - Inhalation; Long term : 185 mg/m ³
	Consumer - Oral; Long term : 125 mg/l

Potassium 1,2-bis(2-ethylhexyloxycarbonyl)ethanesulphonate (CAS: 7491-09-0)

DNEL	Workers - Inhalation; Long term systemic effects: 98.7 mg/m ³
	Workers - Dermal; Long term systemic effects: 10 mg/kg/day
	General population - Inhalation; Long term systemic effects: 14.8 mg/m ³
	General population - Dermal; Long term systemic effects: 5 mg/kg/day
	General population - Oral; Long term systemic effects: 5 mg/kg/day
PNEC	Fresh water; 0.007 mg/l
	Intermittent release, Fresh water; 0.066 mg/l
	marine water; 0.001 mg/l
	STP; 122 mg/l
	Sediment (Freshwater); 0.525 mg/kg
	Sediment (Marinewater); 0.052 mg/kg
	Soil; 0.101 mg/kg

Distillates (Petroleum), Hydrotreated, Light Kerosene (CAS: 64742-47-8)

DNEL	General population - Oral; Long term systemic effects: 18.75 mg/kg bw/day
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2-Naphthalenol, 1-[[4 (phenylazo) phenyl]azo]-, ar-heptyl ar', ar'' - methyl derivatives (CAS: 92257-31-3)

DNEL	Workers - Inhalation; Long term systemic effects: 0.07 mg/m ³
	Workers - Dermal; Long term systemic effects: 0.04 mg/kg/day
	General population - Inhalation; Long term systemic effects: 0.017 mg/m ³
	General population - Dermal; Long term systemic effects: 0.02 mg/kg/day

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC; BASEOIL - U (CAS: 64742-53-6)

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

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

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. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 8 hours. It is recommended that gloves are made of the following material: Polyethylene. Polyvinyl alcohol (PVA). Nitrile rubber.

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Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.
Hygiene measures	Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Pink. Red.
Odour	Hydrocarbons. Solvent.
Flash point	40°C Closed cup.
Relative density	0.782 @ 20°C
Solubility(ies)	Immiscible with water.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No test data specifically related to reactivity available for this product or its ingredients.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No potentially hazardous reactions known.
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10.4. Conditions to avoid

Conditions to avoid	Avoid contact with the following materials: Acids. Oxidising agents. Avoid heat, flames and other sources of ignition.
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10.5. Incompatible materials

Materials to avoid	Oxidising materials.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	No information available.
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Acute toxicity - oral

Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
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Acute toxicity - dermal

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Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	Based on available data the classification criteria are not met.
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Causes skin irritation.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Causes serious eye damage.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	No information available.
<u>Skin sensitisation</u>	
Skin sensitisation	Based on available data the classification criteria are not met.
<u>Germ cell mutagenicity</u>	
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.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Contains an ingredient listed as: Repr. 2
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	A single exposure may cause the following adverse effects: Central and/or peripheral nervous system damage.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	May be fatal if swallowed and enters airways.
<u>Inhalation</u>	
Inhalation	Vapours may cause headache, fatigue, dizziness and nausea.
<u>Ingestion</u>	
Ingestion	May be fatal if swallowed and enters airways.
<u>Skin contact</u>	
Skin contact	Causes skin irritation. Prolonged or repeated exposure may cause severe irritation.
<u>Eye contact</u>	
Eye contact	Causes serious eye damage. Prolonged contact causes serious eye and tissue damage.
<u>Target organs</u>	
Target organs	Skin Eyes Respiratory system, lungs
<u>Toxicological information on ingredients.</u>	

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Acute toxicity - oral

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

Species Rat

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Notes (oral LD₅₀)	LD ₅₀ > 5000 mg/kg, Oral, Rat
ATE oral (mg/kg)	5,000.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	5,000.0
Species	Rat
ATE dermal (mg/kg)	5,000.0
<u>Acute toxicity - inhalation</u>	
Species	Rat
Notes (inhalation LC₅₀)	LC ₅₀ > 5000 mg/m ³ , Inhalation, Rat
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Not irritating.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	No information available.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Negative.
Genotoxicity - in vivo	Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	There is no evidence that the product can cause cancer.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	One-generation study - NOAEL ≥ 3000 mg/kg bw/day, Oral, Rat P
Reproductive toxicity - development	Developmental toxicity: - NOAEC: ≥ 300 ppm, Inhalation, Rat
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Central and/or peripheral nervous system damage.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	May be fatal if swallowed and enters airways.
<u>Potassium 1,2-bis(2-ethylhexyloxycarbonyl)ethanesulphonate</u>	
<u>Acute toxicity - oral</u>	

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Notes (oral LD₅₀)	LD ₅₀ 3000 mg/kg, Oral, Rat
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	LD ₅₀ 2525 mg/kg, Dermal, Rabbit
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	LC ₅₀ 20000 mg/m ³ , Inhalation, Rat
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Causes skin irritation.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Causes serious eye damage.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	No information available.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	No adverse effects observed (negative)
Genotoxicity - in vivo	No adverse effects observed (negative)
<u>Carcinogenicity</u>	
Carcinogenicity	NOAEL 500 mg/kg/day, Oral, Rat Based on available data the classification criteria are not met. REACH dossier information.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Three-generation study - NOAEL 750 mg/kg/day, Oral, Rat P0 This substance has no evidence of toxicity to reproduction.
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 1074 mg/kg/day, Oral, Rat No evidence of reproductive toxicity in animal studies. REACH dossier
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	Not relevant.
<u>Distillates (Petroleum), Hydrotreated, Light Kerosene</u>	
<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	LD ₅₀ > 5000 mg/kg, Oral, Rat
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	LD ₅₀ > 2000 mg/kg, Dermal, Rabbit
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	LC ₅₀ 5280 mg/m ³ , Inhalation, Rat

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Skin corrosion/irritation

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/irritation

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

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility One-generation study - NOAEL 1500 mg/kg bw/day, Oral, Rat P One-generation study - NOAEC 1000 mg/m³, Inhalation, Rat P One-generation study - NOAEL 494 mg/kg bw/day, Dermal, Rat P

Reproductive toxicity - development Developmental toxicity: - NOAEL: 1000 mg/kg bw/day, Oral, Rat Developmental toxicity: - NOAEC: 364 mg/m³, Inhalation, Rat

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 5000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ > 5000 mg/m³, Inhalation, Rat

Skin corrosion/irritation

Skin corrosion/irritation Not irritating.

Serious eye damage/irritation

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

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Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development No evidence of reproductive toxicity in animal studies.

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 Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

Inhalation Drowsiness, dizziness, disorientation, vertigo.

Ingestion May be fatal if swallowed and enters airways.

Skin contact May cause skin irritation/eczema. Dryness and/or cracking.

Eye contact May cause eye irritation. Prolonged contact may cause redness and/or tearing.

2-Naphthalenol, 1-[[4 (phenylazo) phenyl]azo]-, ar-heptyl ar', ar" - methyl derivatives

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 10000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No specific test data are available.

Skin corrosion/irritation

Skin corrosion/irritation Not irritating.

Serious eye damage/irritation

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

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Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Positive.

Genotoxicity - in vivo Negative.

Carcinogenicity

Carcinogenicity No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOEL 2 mg/kg/day, Oral, Rat P0, F1 Repr. 2 REACH dossier information.

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 Prolonged or repeated exposure may cause the following adverse effects:
Liver/spleen

Aspiration hazard

Aspiration hazard Not relevant.

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC; BASEOIL - U

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ > 5 mg/l, Inhalation, Rat

Skin corrosion/irritation

Skin corrosion/irritation Not irritating.

Serious eye damage/irritation

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

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

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Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development This substance has no evidence of toxicity to reproduction.

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 Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not relevant.

SECTION 12: Ecological information

Ecotoxicity No information available.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish No information available.

Acute toxicity - aquatic invertebrates Not available.

Acute toxicity - aquatic plants Not available.

Acute toxicity - microorganisms Not available.

Acute toxicity - terrestrial Not available.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage Not available.

Short term toxicity - embryo and sac fry stages Not available.

Chronic toxicity - aquatic invertebrates Not available.

Ecological information on ingredients.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: > 1000 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: > 1000 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: > 1000 mg/l, Pseudokirchneriella subcapitata

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Acute toxicity - microorganisms EL50, 48 hours: 0.95 mg/l, Tetrahymena pyriformis, QSAR

Potassium 1,2-bis(2-ethylhexyloxycarbonyl)ethanesulphonate

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 49 mg/l, Lepomis macrochirus (Bluegill)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 6.6 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 82.5 mg/l, Scenedesmus subspicatus
EC10, NOEC, 72 hours: 22 mg/l, Scenedesmus subspicatus

Acute toxicity - microorganisms EC₅₀, 16 hours: 164 mg/l, Pseudomonas putida
EC10, NOEC, 16 hours: 122 mg/l, Pseudomonas putida

Distillates (Petroleum), Hydrotreated, Light Kerosene

Acute aquatic toxicity

Acute toxicity - fish NOEC, 96 hours: 2.0 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EL50, 48 hours: 1.4 mg/l, Daphnia magna

Acute toxicity - aquatic plants EL50, 72 hours: 1-3 mg/l, Raphidocelis subcapitata

Acute toxicity - microorganisms LL₅₀, 72 hours: 677.9 mg/l, Tetrahymena pyriformis, QSAR

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEL, 21 days: 0.48 mg/l, Daphnia magna

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Acute aquatic toxicity

Acute toxicity - fish LL₅₀, 96 hours: > 1000 mg/l, Oncorhynchus mykiss (Rainbow trout)
LL0, 96 hours: 1000 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates LL₅₀, 48 hours: > 1000 mg/l, Daphnia magna
LL0, 48 hours: 1000 mg/l, Daphnia magna

Acute toxicity - aquatic plants EL50, 72 hours: > 1000 mg/l, Pseudokirchneriella subcapitata
NOELR, 72 hours: 1000 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms EL50, 48 hours: > 1000 mg/l, Tetrahymena pyriformis

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOELR, 28 days: 0.173 mg/l, QSAR

Chronic toxicity - aquatic invertebrates NOELR, 21 days: 1.22 mg/l, QSAR

2-Naphthalenol, 1-[4 (phenylazo) phenyl]azo]-, ar-heptyl ar', ar'' - methyl derivatives

Redex Lead Replacement

Acute aquatic toxicity

Acute toxicity - fish	Not applicable. Not relevant.
Acute toxicity - aquatic invertebrates	Not applicable. Not relevant.
Acute toxicity - aquatic plants	Not applicable. Not relevant.
Acute toxicity - microorganisms	Not applicable. Not relevant.

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC; BASEOIL - U

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: > 100 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EL50, 48 hours: > 10000 mg/l, Daphnia magna NOEL, 48 hours: >= 1000 mg/l, Daphnia magna LL ₅₀ , 96 hours: > 10000 mg/l, Gammarus pulex NOEL, 96 hours: >= 10000 mg/l, Gammarus pulex
Acute toxicity - aquatic plants	NOEL, 72 hours: >= 100 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	NOEL, 4 days: > 1.93 mg/l, Photobacterium phosphoreum luminescence inhibition study NOEL, 4 days: > 2.17 mg/l, Photobacterium phosphoreum luminescence inhibition study

12.2. Persistence and degradability

Persistence and degradability Expected to be readily biodegradable.

Ecological information on ingredients.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Persistence and degradability Rapidly degradable

Potassium 1,2-bis(2-ethylhexyloxycarbonyl)ethanesulphonate

Persistence and degradability Rapidly degradable

Distillates (Petroleum), Hydrotreated, Light Kerosene

Biodegradation Inherently biodegradable.

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Persistence and degradability Rapidly degradable

2-Naphthalenol, 1-[[4 (phenylazo) phenyl]azo]-, ar-heptyl ar', ar'' - methyl derivatives

Redex Lead Replacement

Persistence and degradability Not readily biodegradable. QSAR

Stability (hydrolysis) No specific test data are available.

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC; BASEOIL - U

Persistence and degradability The product is slowly degradable.

Stability (hydrolysis) Not applicable.
REACH dossier information.

Biodegradation Inherently biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No information available.

Ecological information on ingredients.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Potassium 1,2-bis(2-ethylhexyloxycarbonyl)ethanesulphonate

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Kow: 2

Distillates (Petroleum), Hydrotreated, Light Kerosene

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient Scientifically unjustified.

12.4. Mobility in soil

Adsorption/desorption coefficient No information available.

Ecological information on ingredients.

Potassium 1,2-bis(2-ethylhexyloxycarbonyl)ethanesulphonate

Adsorption/desorption coefficient Expected to have a low potential for adsorption.

2-Naphthalenol, 1-[[4 (phenylazo) phenyl]azo]-, ar-heptyl ar', ar'' - methyl derivatives

Adsorption/desorption coefficient Log Koc 8.15 - 8.56 @ 20°C QSAR REACH dossier information.

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.

Redex Lead Replacement

Ecological information on ingredients.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

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

Potassium 1,2-bis(2-ethylhexyloxycarbonyl)ethanesulphonate

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

Distillates (Petroleum), Hydrotreated, Light Kerosene

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

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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

2-Naphthalenol, 1-[[4 (phenylazo) phenyl]azo]-, ar-heptyl ar', ar" - methyl derivatives

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

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC; BASEOIL - U

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Refer to the Dangerous Goods List for information on any Special Provisions 274, 601.

14.1. UN number

UN No. (ADR/RID)	1993
UN No. (IMDG)	1993
UN No. (ICAO)	1993
UN No. (ADN)	1993

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics)
Proper shipping name (IMDG)	FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics)

Redex Lead Replacement

Proper shipping name (ICAO) FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics)

Proper shipping name (ADN) FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics)

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	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-E
ADR transport category	3
Emergency Action Code	•3Y
Hazard Identification Number (ADR/RID)	30
Tunnel restriction code	(D/E)

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

National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

Redex Lead Replacement

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).
 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).
 Commission Regulation (EU) No 2015/830 of 28 May 2015.

Authorisations (Annex XIV Regulation 1907/2006) No specific authorisations are known for this product.

Restrictions (Annex XVII Regulation 1907/2006) No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ATE: Acute Toxicity Estimate.
 BOD: Biochemical Oxygen Demand.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 EC₅₀: 50% of maximal Effective Concentration.
 GHS: Globally Harmonized System.
 IARC: International Agency for Research on Cancer.
 IATA: International Air Transport Association.
 ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
 IMDG: International Maritime Dangerous Goods.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 LOEC: Lowest Observed Effect Concentration.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 SVHC: Substances of Very High Concern.
 UVCB - Unknown or variable composition, complex reaction products or Biological materials.
 vPvB: Very Persistent and Very Bioaccumulative.

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Revision 12
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SDS number 21884

Redex Lead Replacement

Hazard statements in full

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

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.