



Prestone



SAFETY DATA SHEET Redex Petrol Power Booster

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

1.1. Product identifier

Product name	Redex Petrol Power Booster
Product number	RADD2501A
UFI	UFI: M8K6-Y0PF-D007-2JJF
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. Octane Booster
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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)
 +351213303271; ciav.tox@inem.pt (Portugal)
 +40213183606; infotox@insp.gov.ro (Romania)
 +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	STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304
Environmental hazards	Aquatic Chronic 3 - H412

2.2. Label elements

Hazard pictograms



Signal word

Danger

Redex Petrol Power Booster

Hazard statements	H226 Flammable liquid and vapour. H336 May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure. H304 May be fatal if swallowed and enters airways. H412 Harmful to aquatic life with long lasting effects.
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. P260 Do not breathe 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. P331 Do NOT induce vomiting. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P501 Dispose of contents/ container in accordance with national regulations.
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
UFI	UFI: M8K6-Y0PF-D007-2JJF
Contains	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics, Methylcyclopentadienyl manganese tricarbonyl, Hydrocarbons, C10, aromatics, >1% naphthalene
Supplementary precautionary statements	P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. 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.

2.3. Other hazards

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

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	

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Methylcyclopentadienyl manganese tricarbonyl	<1%
CAS number: 12108-13-3	REACH registration number: 01-2119495971-23-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1
Classification	
Acute Tox. 3 - H301	
Acute Tox. 2 - H310	
Acute Tox. 1 - H330	
Skin Irrit. 2 - H315	
STOT RE 1 - H372	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	
Hydrocarbons, C10, aromatics, >1% naphthalene	<1%
CAS number: 1189173-42-9	EC number: 919-284-0
	REACH registration number: 01-2119463588-24-XXXX
Classification	
STOT SE 3 - H336	
Asp. Tox. 1 - H304	
Aquatic Chronic 2 - H411	
NAPHTHALENE	<1%
CAS number: 91-20-3	EC number: 202-049-5
	REACH registration number: 01-2119561346-37-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1
Classification	
Acute Tox. 4 - H302	
Carc. 2 - H351	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	
1,2,4-TRIMETHYLBENZENE	<1%
CAS number: 95-63-6	EC number: 202-436-9
	REACH registration number: 01-2119472135-42-XXXX
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	

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

SECTION 4: First aid measures

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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. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Do not induce vomiting. Remove affected person from source of contamination. Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention immediately.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse with water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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

Inhalation	May cause drowsiness or dizziness. May cause respiratory system irritation. Central nervous system depression.
Ingestion	May be fatal if swallowed and enters airways. Nausea, vomiting.
Skin contact	May be slightly irritating to skin. Prolonged or repeated exposure may cause severe irritation. Product has a defatting effect on skin.
Eye contact	May be slightly irritating to eyes. Prolonged or repeated exposure may cause severe irritation.

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 foam, carbon dioxide, dry powder or water fog.
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5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Oxides of carbon. Metal oxide(s).
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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.
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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.
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6.2. Environmental precautions

Environmental precautions	Avoid release to the environment. Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

Redex Petrol Power Booster

Methods for cleaning up 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. 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. Provide adequate ventilation. Avoid inhalation of vapours and contact with skin and eyes. Use approved respirator if air contamination is above an acceptable level. Keep away from heat, sparks and open flame.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from oxidising materials, heat and flames. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container. Store at temperatures not exceeding 40°C.

Storage class Flammable liquids

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

Hydrocarbons, C10, aromatics, >1% naphthalene

Long-term exposure limit (8-hour TWA): PT 500 ppm

Short-term exposure limit (15-minute): PT ppm 2000 mg/m³

NAPHTHALENE

Long-term exposure limit (8-hour TWA): WEL 10 ppm 53 mg/m³

Short-term exposure limit (15-minute): WEL 15 ppm 80 mg/m³

1,2,4-TRIMETHYLBENZENE

Long-term exposure limit (8-hour TWA): 25 ppm 125

WEL = Workplace Exposure Limit.

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

DNEL

Industry - Dermal; Long term : 208 mg/kg/day

Industry - Inhalation; Long term : 871 mg/m³

Consumer - Dermal; Long term : 125 mg/kg/day

Consumer - Inhalation; Long term : 185 mg/m³

Consumer - Oral; Long term : 125 mg/l

Methylcyclopentadienyl manganese tricarbonyl (CAS: 12108-13-3)

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DNEL Workers - Inhalation; Long term systemic effects: 0.6 mg/m³
 Workers - Dermal; Long term systemic effects: 0.11 mg/kg/day
 General population - Inhalation; Long term systemic effects: 0.11 mg/m³
 General population - Dermal; Long term systemic effects: 0.062 mg/kg/day

PNEC Fresh water; 0.21 µg/l
 Intermittent release; 2.1 (freshwater) µg/l
 marine water; 0.021 µg/l
 Soil; 16 µg/kg soil dw

Hydrocarbons, C10, aromatics, >1% naphthalene (CAS: 1189173-42-9)

DNEL Workers - Inhalation; Long term systemic effects: 151 mg/m³
 Workers - Dermal; Long term systemic effects: 12.5 mg/kg bw/day
 General population - Inhalation; Long term systemic effects: 32 mg/m³
 General population - Dermal; Long term systemic effects: 7.5 mg/kg bw/day
 General population - Oral; Long term systemic effects: 7.5 mg/kg bw/day

NAPHTHALENE (CAS: 91-20-3)

DNEL Workers - Inhalation; Long term systemic effects: 25 mg/m³
 Workers - Inhalation; Long term local effects: 25 mg/m³
 Workers - Dermal; Long term systemic effects: 3.57 mg/kg bw/day

PNEC Fresh water; Long term 2.4 µg/l
 marine water; Long term 2.4 µg/l
 STP; Long term 2.9 mg/l
 Sediment (Freshwater); Long term 67.2 µg/kg sediment dw
 Sediment (Marinewater); Long term 67.2 µg/kg sediment dw
 Soil; Long term 53.3 µg/kg soil dw

1,2,4-TRIMETHYLBENZENE (CAS: 95-63-6)

DNEL Workers - Inhalation; Long term systemic effects: 100 mg/m³
 Workers - Inhalation; Short term systemic effects: 100 mg/m³
 Workers - Inhalation; Long term local effects: 100 mg/m³
 Workers - Dermal; Long term systemic effects: 16171 mg/kg bw/day
 General population - Inhalation; Long term systemic effects: 29.4 mg/m³
 General population - Inhalation; Short term systemic effects: 29.4 mg/m³
 General population - Inhalation; Long term local effects: 29.4 mg/m³
 General population - Inhalation; Short term local effects: 29.4 mg/m³
 General population - Dermal; Long term systemic effects: 9512 mg/kg bw/day
 General population - Oral; Long term systemic effects: 15 mg/kg bw/day

PNEC Fresh water; 0.12 mg/l
 marine water; 0.12 mg/l
 STP; 2.41 mg/l
 Sediment (Freshwater); 13.56 mg/kg sediment dry weight
 Soil; 2.34 mg/kg soil dry weight

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls	Provide adequate general and local exhaust ventilation.
Eye/face protection	The following protection should be worn: Chemical splash goggles or face shield.
Hand protection	Wear protective gloves. It is recommended that gloves are made of the following material: Nitrile rubber. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.
Hygiene measures	Good personal hygiene procedures should be implemented. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. Do not eat, drink or smoke when using this product.
Respiratory protection	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	Colourless to pale yellow.
Odour	Solvent.
Flash point	44°C
Relative density	0.766
Solubility(ies)	Immiscible with water.
Viscosity	~3 cP @ °C

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Strong oxidising agents.
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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	Strong oxidising agents.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat. Avoid contact with the following materials: Oxidising agents. Reducing agents.
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10.5. Incompatible materials

10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO ₂).
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SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Acute toxicity - oral

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

ATE oral (mg/kg) 10,617.12

Acute toxicity - dermal

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

Acute toxicity - inhalation

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

ATE inhalation (vapours mg/l) 199.07

Skin corrosion/irritation

Skin corrosion/irritation May be slightly irritating to skin. Prolonged or repeated exposure may cause severe irritation. Product has a defatting effect on skin.

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 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.

Reproductive toxicity

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.

Specific target organ toxicity - single exposure

STOT - single exposure Central and/or peripheral nervous system damage.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure High concentrations may cause severe lung damage.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

Inhalation Vapours may cause headache, fatigue, dizziness and nausea. Central nervous system depression.

Ingestion May be fatal if swallowed and enters airways. Nausea, vomiting.

Skin contact May be slightly irritating to skin. Prolonged or repeated exposure may cause severe irritation. Product has a defatting effect on skin.

Eye contact May be slightly irritating to eyes. Prolonged or repeated exposure may cause severe irritation.

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Acute and chronic health hazards Inhalation May cause respiratory system irritation. Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. Prolonged or repeated exposure to vapours in high concentrations may cause the following adverse effects: Nausea, vomiting. Headache. Product has a defatting effect on skin.

Target organs Skin Eyes Respiratory system, lungs

Toxicological information on ingredients.

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

Acute toxicity - oral

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

Species Rat

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

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

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

Species Rat

ATE dermal (mg/kg) 5,000.0

Acute toxicity - inhalation

Species Rat

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.

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 There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility One-generation study - NOAEL >= 3000 mg/kg bw/day, Oral, Rat P

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Reproductive toxicity - development Developmental toxicity: - NOAEC: \geq 300 ppm, Inhalation, Rat

Specific target organ toxicity - single exposure

STOT - single exposure Central and/or peripheral nervous system damage.

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.

Methylcyclopentadienyl manganese tricarbonyl

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 51.8 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 140 mg/kg, Dermal, Rabbit

ATE dermal (mg/kg) 50.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC50 0.000076 mg/m³, Inhalation, Rat

ATE inhalation (vapours mg/l) 0.05

Skin corrosion/irritation

Skin corrosion/irritation Causes 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 Positive with metabolic activation. Negative without metabolic activation.

Genotoxicity - in vivo Negative.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility Fertility - NOAEL 8 mg/kg/day, Oral, Rat F1

Reproductive toxicity - development Teratogenicity: - NOAEL: 9 mg/kg/day, Oral, Rat Maternal toxicity: - NOAEL: 6.5 mg/kg/day, Oral, Rat

Specific target organ toxicity - single exposure

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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.

Hydrocarbons, C10, aromatics, >1% naphthalene

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 6318 ml/kg, Oral, Rat

Acute toxicity - dermal

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

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 590,000.0

Species 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 with metabolic activation. Negative without metabolic activation.

Genotoxicity - in vivo Negative.

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity - fertility Three-generation study - NOAEL > 1500 (C9 aromatic hydrocarbons) ppm, Inhalation, Rat F3 Two-generation study - NOAEL >= 300 (C10 aromatic hydrocarbons) mg/kg/day, Oral, Rat F1

Reproductive toxicity - development Maternal toxicity: - NOAEL: 150 mg/kg/day, Oral, Rat Developmental toxicity: - NOAEL: > 450 mg/kg/day, Oral, Rat

Specific target organ toxicity - single exposure

STOT - single exposure Central and/or peripheral nervous system damage.

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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.

NAPHTHALENE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 490.0

Species Rat

ATE oral (mg/kg) 490.0

Acute toxicity - dermal

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

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 340,000.0

Species 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 with metabolic activation. Negative without metabolic activation.

Genotoxicity - in vivo Negative.

Carcinogenicity

Carcinogenicity Suspected of causing cancer.

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

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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.

1,2,4-TRIMETHYLBENZENE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 6000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 3440 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Harmful if inhaled. LC₅₀ 10200 mg/m³, Inhalation, Rat

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No adverse effects observed (not sensitising)

Germ cell mutagenicity

Genotoxicity - in vitro No adverse effects observed (negative)

Genotoxicity - in vivo No adverse effects observed (negative)

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity - fertility Three-generation study - NOAEC 2500 mg/m³, Inhalation, Rat reproductive toxicity
No evidence of reproductive toxicity in animal studies.

Reproductive toxicity - development Developmental toxicity:, Maternal toxicity: - NOAEC: 1470 mg/m³, Inhalation, Rat
No evidence of reproductive toxicity in animal studies.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Conclusive data but not sufficient for classification.

Aspiration hazard

Aspiration hazard Not relevant.

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SECTION 12: Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Ecological information on ingredients.

Hydrocarbons, C10, aromatics, >1% naphthalene

Ecotoxicity Toxic to aquatic life with long lasting effects.

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

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

Methylcyclopentadienyl manganese tricarbonyl

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 0.21 mg/l, Cyprinus carpio (Common carp)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.83 mg/l, Daphnia magna

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Acute toxicity - aquatic plants EC₅₀, 48 hours: 1.7 mg/l, Pseudokirchneriella subcapitata

Chronic aquatic toxicity

M factor (Chronic) 1

Hydrocarbons, C10, aromatics, >1% naphthalene

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 2-5 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 3-10 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 1-3 mg/l, Pseudokirchneriella subcapitata

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOELR, 28 days: 0.487 mg/l, QSAR

Chronic toxicity - aquatic invertebrates NOELR, 21 days: 0.851 mg/l, QSAR

NAPHTHALENE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 1.6 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1.96 mg/l, Daphnia magna
LC₅₀, 48 hours: 2350 µg/l, Marinewater invertebrates, Palaemonetes pugio

Acute toxicity - aquatic plants EC₅₀, 4 hours: 2.96 mg/l, Selenastrum capricornutum

Acute toxicity - microorganisms IC₅₀, 15 hours: 29 mg/l, Nitrosomonas sp.
NOEC, 15 hours: 10 mg/l, Nitrosomonas sp.

Chronic aquatic toxicity

M factor (Chronic) 1

Chronic toxicity - fish early life stage NOEC, 40 days: 0.12 mg/l, Oncorhynchus kisutch (Coho salmon)

Chronic toxicity - aquatic invertebrates NOEC, 125 days: 0.6 mg/l, Daphnia Pulex

1,2,4-TRIMETHYLBENZENE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 7.72 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 3.6 mg/l, Daphnia magna

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Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: 7.72 mg/l, Algae EC ₅₀ , 96 hours: 2.356 mg/l, Green algae, QSAR
Acute toxicity - microorganisms	Inhibition of total respiration, 3 hours: 500 mg/l, Activated sludge
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - fish early life stage	ChV, 30 days: 0.396 mg/l, QSAR
Chronic toxicity - aquatic invertebrates	ChV, 16 days: 0.367 mg/l, Daphnia magna, QSAR

12.2. Persistence and degradability

Persistence and degradability Moderately biodegradable.

Ecological information on ingredients.

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

Persistence and degradability Rapidly degradable

Methylcyclopentadienyl manganese tricarbonyl

Persistence and degradability Not readily biodegradable.

Stability (hydrolysis) pH4, pH7, pH9 - Half-life : > 1 year @ 25°C

Hydrocarbons, C10, aromatics, >1% naphthalene

Biodegradation Inherently biodegradable.

NAPHTHALENE

Persistence and degradability Rapidly degradable

1,2,4-TRIMETHYLBENZENE

Persistence and degradability Not expected to be readily biodegradable. Inherently biodegradable

12.3. Bioaccumulative potential

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.

Methylcyclopentadienyl manganese tricarbonyl

Bioaccumulative potential No potential for bioaccumulation.

NAPHTHALENE

Bioaccumulative potential Bioaccumulation is unlikely.

Redex Petrol Power Booster

Partition coefficient log Pow: 3.3 - 3.7

1,2,4-TRIMETHYLBENZENE

Bioaccumulative potential BCF: 243, Pimephales promelas (Fat-head Minnow), QSAR

Partition coefficient log Kow: 3.63

12.4. Mobility in soil

Ecological information on ingredients.

NAPHTHALENE

Adsorption/desorption coefficient Koc 378 @ 20 deg C

1,2,4-TRIMETHYLBENZENE

Adsorption/desorption coefficient calculated - Log Koc: 3.04 @ °C calculated - Koc: 1097 @ °C

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.

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.

Methylcyclopentadienyl manganese tricarbonyl

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

NAPHTHALENE

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

1,2,4-TRIMETHYLBENZENE

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. Avoid the spillage or runoff entering drains, sewers or watercourses.

SECTION 14: Transport information

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

Redex Petrol Power Booster

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, 1,2,4-TRIMETHYLBENZENE)
Proper shipping name (IMDG)	FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics, 1,2,4-TRIMETHYLBENZENE)
Proper shipping name (ICAO)	FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics, 1,2,4-TRIMETHYLBENZENE)
Proper shipping name (ADN)	FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics, 1,2,4-TRIMETHYLBENZENE)

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

Redex Petrol Power Booster

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 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).

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

Redex Petrol Power Booster

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.

Revision date	07/06/2021
Revision	4
Supersedes date	30/10/2020
SDS number	21421

Redex Petrol Power Booster

Hazard statements in full

H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H310 Fatal in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.
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.
H412 Harmful 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.