



SAFETY DATA SHEET

STP® Lead Substitute with Octane Booster

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

1.1. Product identifier

Product name STP® Lead Substitute with Octane Booster

Product number 58200

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

Identified uses Fuel additive.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

Armored Auto UK Ltd
Unit 16
Rassau Industrial Estate
Ebbw Vale
Gwent
NP23 5SD
UK
Tel: +44 1495 350234
Fax: +44 1495 350431
euregulatory@eu.spectrumbrands.com

1.4. Emergency telephone number

Emergency telephone +44 1495 350234
Monday - Thursday: 0830 - 1700
Friday: 0830 - 1530

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Repr. 1B - H360FD Asp. Tox. 1 - H304

Environmental hazards Aquatic Chronic 2 - H411

Human health Pneumonia may be the result if vomited material containing solvents reaches the lungs.

2.2. Label elements

Pictogram



STP® Lead Substitute with Octane Booster

Signal word	Danger
Hazard statements	H304 May be fatal if swallowed and enters airways. H360FD May damage fertility. May damage the unborn child. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P102 Keep out of reach of children. P201 Obtain special instructions before use. P280 Wear protective clothing, gloves, eye and face protection. P308+P313 IF exposed or concerned: Get medical advice/ attention. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P331 Do NOT induce vomiting. P501 Dispose of contents/ container in accordance with national regulations.
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Contains	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics, Solvent naphtha (petroleum), heavy arom., Ferrocene
Supplementary precautionary statements	P202 Do not handle until all safety precautions have been read and understood. P391 Collect spillage. P405 Store locked up.

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, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics			50 - 100%
CAS number: —	EC number: 926-141-6	REACH registration number: 01-2119456620-43-XXXX	
Classification Asp. Tox. 1 - H304			
Solvent naphtha (petroleum), heavy arom.			1 - <2.5%
CAS number: 64742-94-5	EC number: 265-198-5		
Classification STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411			
Polyolefin alkyl phenol alkyl amine			1 - <2.5%
CAS number: —			
Classification Skin Irrit. 2 - H315			

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Ferrocene 1 - <2.5% CAS number: 102-54-5 EC number: 203-039-3 REACH registration number: 01-2119978280-34-XXXX M factor (Chronic) = 10		
Classification Flam. Sol. 1 - H228 Acute Tox. 4 - H302 Acute Tox. 4 - H332 Repr. 1B - H360FD STOT RE 2 - H373 Aquatic Chronic 1 - H410		
1,2,4-Trimethylbenzene 0.5 - <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		
Mesitylene 0.25 - <0.5% CAS number: 108-67-8 EC number: 203-604-4		
Classification Flam. Liq. 3 - H226 STOT SE 3 - H335 Aquatic Chronic 2 - H411		
Naphthalene 0.25 - <0.5% CAS number: 91-20-3 EC number: 202-049-5 M factor (Acute) = 1 M factor (Chronic) = 1		
Classification Acute Tox. 4 - H302 Carc. 2 - H351 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

IF exposed or concerned: Call a POISON CENTER or doctor.

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

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Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse.

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

General information	May damage fertility. May damage the unborn child.
Inhalation	Vapours may cause drowsiness and dizziness.
Ingestion	May cause discomfort if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.
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5.3. Advice for firefighters

Special protective equipment for firefighters	Use protective equipment appropriate for surrounding materials.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

Environmental precautions	Avoid discharge into drains or watercourses or onto the ground. Use appropriate containment to avoid environmental contamination. 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

Methods for cleaning up	Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not touch or walk into spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.
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6.4. Reference to other sections

Reference to other sections See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations.

Advice on general occupational hygiene Avoid contact with eyes and prolonged skin contact. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in a cool and well-ventilated place. Keep away from heat, sparks and open flame. Store locked up.

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

1,2,4-Trimethylbenzene

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

Mesitylene

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

Naphthalene

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

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

WEL = Workplace Exposure Limit

8.2. Exposure controls

Protective equipment



Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Hygiene measures

Do not smoke in work area. Wash promptly with soap and water if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Liquid.

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Colour	Burnt orange
Odour	Characteristic.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	74°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	0.8147
Bulk density	813.2 kg/m ³
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Other information	No information required.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Acids. Oxidising materials.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
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10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances:
Carbon dioxide (CO₂). Carbon monoxide (CO). Toxic gases or vapours.

SECTION 11: Toxicological information

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) 97,058.82

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) 808.82

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Respiratory sensitisation

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

Skin sensitisation

Skin sensitisation 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 Repr. 1B - H360F May damage fertility.

Reproductive toxicity - development Repr. 1B - H360D May damage the unborn child.

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 Kinematic viscosity ≤ 20.5 mm²/s. Asp. Tox. 1 - H304 Aspiration hazard if swallowed.

Skin contact

Repeated exposure may cause skin dryness or cracking.

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

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Acute toxicity - oral

Acute toxicity oral (LD ₅₀ mg/kg)	15,000.0
Species	Rat
Notes (oral LD ₅₀)	REACH dossier information. Read-across data.
ATE oral (mg/kg)	15,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD ₅₀ mg/kg)	3,160.0
Species	Rabbit
Notes (dermal LD ₅₀)	REACH dossier information. Read-across data.
ATE dermal (mg/kg)	3,160.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC ₅₀ vapours mg/l)	4,951.0
Species	Rat
Notes (inhalation LC ₅₀)	REACH dossier information. Read-across data.
ATE inhalation (vapours mg/l)	4,951.0

Skin corrosion/irritation

Animal data	Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: Well defined erythema (2). Oedema score: Very slight oedema - barely perceptible (1). REACH dossier information. Read-across data.
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Serious eye damage/irritation

Serious eye damage/irritation	Dose: 0.1 ml, 1 second, Rabbit Not irritating. REACH dossier information. Read-across data.
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Skin sensitisation

Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Read-across data.
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Germ cell mutagenicity

Genotoxicity - in vitro	Gene mutation: Negative. REACH dossier information. Read-across data.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Read-across data.

Carcinogenicity

Carcinogenicity	NOAEC 1100 mg/m ³ , Inhalation, Mouse REACH dossier information. Read-across data.
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Reproductive toxicity

Reproductive toxicity - fertility	Fertility, One-generation study - NOAEL 750 mg/kg/day, Oral, Rat F1 REACH dossier information. Read-across data.
Reproductive toxicity - development	Maternal toxicity: - NOAEL: >= 5220 mg/m ³ , Inhalation, Rat REACH dossier information.

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Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEC > 10400 mg/m³, Inhalation, Rat REACH dossier information. Read-across data.

Aspiration hazard

Aspiration hazard 2.4 cSt @ 20°C Asp. Tox. 1 - H304

Solvent naphtha (petroleum), heavy arom.

Acute toxicity - oral

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

Species Rat

Notes (oral LD₅₀) REACH dossier information.

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

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

Species Rabbit

Notes (dermal LD₅₀) REACH dossier information.

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 590.0

Species Rat

Notes (inhalation LC₅₀) US Department of Commerce NTIS Vol. OTS0534724

ATE inhalation (vapours mg/l) 590.0

Skin corrosion/irritation

Animal data Dose: 0.5 ml, 24 hours, Rabbit Erythema/eschar score: Moderate to severe erythema (3). Oedema score: Slight oedema - edges of area well defined by definite raising (2). REACH dossier information.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.1 ml, 1 minute, Rabbit REACH dossier information. Not irritating.

Skin sensitisation

Skin sensitisation Buehler test - Guinea pig: Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information.

Carcinogenicity

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Carcinogenicity LOAEL 250 mg/kg/day, Dermal, Mouse REACH dossier information. No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Reproductive toxicity - fertility Fertility - NOAEL 750 mg/kg/day, Oral, Rat P REACH dossier information.

Reproductive toxicity - development Embryotoxicity: - NOAEL: 1000 mg/kg/day, Oral, Rat REACH dossier information.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 750 mg/kg/day, Oral, Rat NOAEC ≥ 24 mg/m³, Inhalation, Rat REACH dossier information.

Aspiration hazard

Aspiration hazard 1 - 2.4 cSt @ 40°C/104°F REACH dossier information. Kinematic viscosity ≤ 20.5 mm²/s.

Ferrocene

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,320.0

Species Rat

Notes (oral LD₅₀) REACH dossier information.

ATE oral (mg/kg) 1,320.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 3,000.0

Species Rat

Notes (dermal LD₅₀) REACH dossier information.

ATE dermal (mg/kg) 3,000.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Converted acute toxicity point estimate (cATpE)

ATE inhalation (vapours mg/l) 11.0

Skin corrosion/irritation

Animal data Dose: 0.5 g, 4 hours, Rabbit Primary dermal irritation index: 0.5 / 1 REACH dossier information.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.1 g, 72 hours, Rabbit REACH dossier information. Not irritating.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information.

Germ cell mutagenicity

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Genotoxicity - in vitro Bacterial reverse mutation test: Negative. REACH dossier information.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility Screening - NOEL 5 mg/kg/day, Oral, Rat P, F1 REACH dossier information.

1,2,4-Trimethylbenzene

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 6,000.0

Species Rat

Notes (oral LD₅₀) REACH dossier information.

ATE oral (mg/kg) 6,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 3,440.0

Species Rat

Notes (dermal LD₅₀) REACH dossier information. Read-across data.

ATE dermal (mg/kg) 3,440.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 10.2

Species Rat

Notes (inhalation LC₅₀) REACH dossier information. Read-across data.

ATE inhalation (vapours mg/l) 10.2

Skin corrosion/irritation

Animal data Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: Well defined erythema (2). REACH dossier information. Read-across data. Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.2 ml, 1 second, Rabbit REACH dossier information. Read-across data. Slightly irritating.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Read-across data.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information.

Specific target organ toxicity - repeated exposure

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STOT - repeated exposure NOAEL 600 mg/kg, Oral, Rat REACH dossier information. Read-across data.

Aspiration hazard

Aspiration hazard 0.63 cSt @ 50°C/122°F REACH dossier information. Not anticipated to present an aspiration hazard, based on chemical structure.

Mesitylene

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 6,000.0

Species Rat

Notes (oral LD₅₀) REACH dossier information. Read-across data.

ATE oral (mg/kg) 6,000.0

Acute toxicity - dermal

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

Species Rat

Notes (dermal LD₅₀) REACH dossier information. Read-across data.

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 10.2

Species Rat

Notes (inhalation LC₅₀) REACH dossier information. Read-across data.

ATE inhalation (dusts/mists mg/l) 10.2

Skin corrosion/irritation

Animal data Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: Well defined erythema (2). REACH dossier information.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.2 ml, 1 second, Rabbit Not irritating. REACH dossier information. Read-across data.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Read-across data.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility Multi-generation study - NOAEC 500 ppm, Inhalation, Rat REACH dossier information. Read-across data.

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Reproductive toxicity - development Maternal toxicity: - NOAEC: 492 mg/m³, Inhalation, Rat REACH dossier information.

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 600 mg/kg/day, Oral, Rat REACH dossier information.

Aspiration hazard

Aspiration hazard 0.63 cSt @ 50°C/122°F REACH dossier information. Not anticipated to present an aspiration hazard, based on chemical structure.

Naphthalene

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 533.0

Species Mouse

Notes (oral LD₅₀) REACH dossier information.

ATE oral (mg/kg) 533.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,500.0

Species Rat

Notes (dermal LD₅₀) REACH dossier information.

ATE dermal (mg/kg) 2,500.0

Acute toxicity - inhalation

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

Skin corrosion/irritation

Animal data Dose: 0.5 g, 24 hours, Rabbit Primary dermal irritation index: 1.75 / 8 REACH dossier information. Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.1 g, 24 hours, Rabbit REACH dossier information. Not irritating.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro Bacterial reverse mutation test: Negative. REACH dossier information.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information.

Carcinogenicity

IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

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NTP carcinogenicity Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Reproductive toxicity - development Developmental toxicity: - NOEL: 400 mg/kg/day, Oral, Rabbit REACH dossier information.

2-ethylhexan-1-ol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,290.0

Species Rat

Notes (oral LD₅₀) REACH dossier information.

ATE oral (mg/kg) 3,290.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 3,000.0

Species Rat

Notes (dermal LD₅₀) REACH dossier information.

ATE dermal (mg/kg) 3,000.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 11.0

Skin corrosion/irritation

Animal data Primary dermal irritation index: 6.75 Dose: 0.5 ml, 4 hours, Rabbit REACH dossier information. Highly irritating.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.1 ml, 1 second, Rabbit REACH dossier information. Irritating.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information.

Carcinogenicity

Carcinogenicity NOAEL 500 mg/kg/day, Oral, Rat REACH dossier information.

Reproductive toxicity

Reproductive toxicity - development Developmental toxicity: - NOAEL: 2520 mg/kg/day, Dermal, Rat REACH dossier information.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 250 mg/kg/day, Oral, Rat REACH dossier information.

Aspiration hazard

Aspiration hazard 4.3 mPa s @ 40°C/104°F REACH dossier information.

SECTION 12: Ecological Information

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12.1. Toxicity

Toxicity

Aquatic Chronic 2 - H411

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

Acute toxicity - fish	LL ₅₀ , 96 hours: > 1000 mg/l, Onchorhynchus mykiss (Rainbow trout) REACH dossier information.
Acute toxicity - aquatic invertebrates	EL ₅₀ , 48 hours: > 1000 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	EL ₅₀ , 72 hours: > 1000 mg/l, Pseudokirchneriella subcapitata REACH dossier information.
Chronic toxicity - fish early life stage	NOELR, 28 days: 0.173 mg/l, Onchorhynchus mykiss (Rainbow trout) QSAR REACH dossier information.
Chronic toxicity - aquatic invertebrates	NOELR, 21 days: 1.22 mg/l, Daphnia magna QSAR REACH dossier information.

Solvent naphtha (petroleum), heavy arom.

Acute toxicity - fish	LL ₅₀ , 96 hours: 2 - 5 mg/l, Onchorhynchus mykiss (Rainbow trout) REACH dossier information.
Acute toxicity - aquatic invertebrates	EL ₅₀ , 48 hours: 1.4 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	EL ₅₀ , 24 hours: 1 - 3 mg/l, Pseudokirchneriella subcapitata REACH dossier information.
Chronic toxicity - fish early life stage	NOEL, 28 days: 0.098 mg/l, Onchorhynchus mykiss (Rainbow trout) QSAR REACH dossier information.
Chronic toxicity - aquatic invertebrates	EL ₅₀ , 21 days: 0.89 mg/l, Daphnia magna REACH dossier information.

Ferrocene

Acute toxicity - fish	LC ₅₀ , 48 hours: 24.5 mg/l, Leuciscus idus (Golden orfe) REACH dossier information.
Acute toxicity - aquatic invertebrates	EC ₅₀ , 24 hours: 2.5 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 1.03 mg/l, Desmodemus subspicatus REACH dossier information.
Acute toxicity - microorganisms	NOEC, 6 hours: > 87.6 mg/kg, Pseudomonas putida REACH dossier information.

Chronic aquatic toxicity

NOEC	0.01 < NOEC ≤ 0.1
M factor (Chronic)	10

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Chronic toxicity - fish early life stage NOEC, 14 days: 1.5 mg/l, Leuciscus idus (Golden orfe)
REACH dossier information.

Chronic toxicity - aquatic invertebrates NOEC, 21 days: ~ 0.0015 mg/l, Daphnia magna
REACH dossier information.

1,2,4-Trimethylbenzene

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

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

Acute toxicity - aquatic plants EC₅₀, 96 hours: 2.356 mg/l, Freshwater algae
REACH dossier information.
QSAR

Mesitylene

Toxicity Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.

Acute toxicity - fish LC₅₀, 96 hours: 12.52 mg/l, Carassius auratus (Goldfish)
REACH dossier information.

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 6 mg/l, Daphnia magna
REACH dossier information.

Acute toxicity - aquatic plants EC₅₀, 48 hours: 25 mg/l, Desmodesmus subspicatus
REACH dossier information.

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 2 mg/l, Daphnia magna
REACH dossier information.

Naphthalene

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 6.08 mg/l, Pimephales promelas (Fat-head Minnow)
REACH dossier information.

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 2.16 mg/l, Daphnia magna
REACH dossier information.

Acute toxicity - microorganisms IC₅₀, 24 hours: 29 mg/l, Nitrosomonas
REACH dossier information.

Chronic aquatic toxicity

M factor (Chronic) 1

Chronic toxicity - fish early life stage NOEC, 40 days: ~ 0.37 mg/l, Oncorhynchus kisutch (Coho salmon)
REACH dossier information.

Chronic toxicity - aquatic invertebrates NOEC, 125 days: 0.59 mg/l, Daphnia pulex
REACH dossier information.

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2-ethylhexan-1-ol

Acute toxicity - fish	LC ₅₀ , 96 hours: 17.1 mg/l, <i>Leuciscus idus</i> (Golden orfe) REACH dossier information.
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 39 mg/l, <i>Daphnia magna</i> REACH dossier information.
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 11.5 mg/l, <i>Scenedesmus subspicatus</i> REACH dossier information.

12.2. Persistence and degradability

Persistence and degradability No data available.

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

Biodegradation	Water - Degradation ~ 5%: 3 days Water - Degradation 69: 28 days REACH dossier information. Readily biodegradable but failing the 10-day window.
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Solvent naphtha (petroleum), heavy arom.

Biodegradation	Water - Degradation 61 %: 28 days Readily biodegradable but failing the 10-day window. REACH dossier information.
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Ferrocene

Biodegradation	Water - Degradation (56%): 28 days REACH dossier information. Inherently biodegradable.
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1,2,4-Trimethylbenzene

Phototransformation	Water - DT ₅₀ : 12 hours REACH dossier information.
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Mesitylene

Biodegradation	- Degradation (50%): 4.4 days REACH dossier information. QSAR The substance is readily biodegradable.
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Naphthalene

Biodegradation	- Degradation (99.9%): 15.2±8.4 days REACH dossier information. The substance is readily biodegradable.
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2-ethylhexan-1-ol

Biodegradation	Water - Degradation 79 - 99.9%: 2 weeks REACH dossier information. The substance is readily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

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

Partition coefficient Scientifically unjustified. REACH dossier information.

Solvent naphtha (petroleum), heavy arom.

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

Ferrocene

Partition coefficient log Pow: 3.711 REACH dossier information.

1,2,4-Trimethylbenzene

Bioaccumulative potential BCF: 243, Pimephales promelas (Fat-head Minnow) QSAR REACH dossier information.

Partition coefficient log Kow: 3.65 REACH dossier information.

Mesitylene

Bioaccumulative potential BCF: 161, Pimephales promelas (Fat-head Minnow) REACH dossier information. QSAR

Naphthalene

Bioaccumulative potential BCF: 36.5 - 168, Cyprinus carpio (Common carp) REACH dossier information.

Partition coefficient log Pow: 3.4 REACH dossier information.

2-ethylhexan-1-ol

Bioaccumulative potential BCF: 25.33, REACH dossier information.

Partition coefficient log Pow: 2.9 REACH dossier information.

12.4. Mobility in soil

Mobility The product is soluble in water.

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

Mobility The product has poor water-solubility.

Surface tension 26.4 mN/m @ 25°C

Solvent naphtha (petroleum), heavy arom.

Mobility The product contains organic solvents which will evaporate easily from all surfaces. The product has poor water-solubility.

Ferrocene

STP® Lead Substitute with Octane Booster

Adsorption/desorption coefficient - log Koc: ~ 3 @ 25°C/77°F REACH dossier information.

1,2,4-Trimethylbenzene

Adsorption/desorption coefficient Soil - log Koc 3.04 REACH dossier information. QSAR

Mesitylene

Adsorption/desorption coefficient Water - log Koc : 2.87 REACH dossier information. QSAR

2-ethylhexan-1-ol

Surface tension 47 mN/m @ 20°C/68°F 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.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (ADN) 3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ferrocene)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ferrocene)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ferrocene)

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ferrocene)

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M6

ADR/RID label 9

IMDG class 9

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ICAO class/division 9

ADN class 9

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-A, S-F

ADR transport category 3

Emergency Action Code •3Z

Hazard Identification Number (ADR/RID) 90

Tunnel restriction code (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 EH40/2005 Workplace exposure limits.

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

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Classification procedures according to Regulation (EC) 1272/2008

Repr. 1B - H360FD: Calculation method. Asp. Tox. 1 - H304: Calculation method. Aquatic Chronic 2 - H411: Calculation method. EUH066: Expert judgement.

Revision comments

Section 3: Composition/information on ingredients // 3.2 Mixtures. Section 8: Exposure controls/personal protection // 8.1. Control parameters. Section 11: Toxicological information // 11.1. Information on toxicological effects. Section 12: Ecological information // 12.1. Toxicity. Section 12: Ecological information // 12.2. Persistence and degradability. Section 12: Ecological information // 12.3. Bioaccumulative potential. Section 12: Ecological information // 12.4. Mobility in soil.

Revision date

15/05/2015

Revision

7

Supersedes date

18/03/2015

SDS number

125

Risk phrases in full

R10 Flammable.
R11 Highly flammable.
R20 Harmful by inhalation.
R20/22 Harmful by inhalation and if swallowed.
R22 Harmful if swallowed.
R36/37/38 Irritating to eyes, respiratory system and skin.
R37 Irritating to respiratory system.
R38 Irritating to skin.
R40 Limited evidence of a carcinogenic effect.
R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R60 May impair fertility.
R61 May cause harm to the unborn child.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

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.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H360FD May damage fertility. May damage the unborn child.
H373 May cause damage to organs (Liver) 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.

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