

## SAFETY DATA SHEET

## STP® Ultra Petrol

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® Ultra Petrol	
Product number	76400	
1.2. Relevant identified uses o	f 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 supplier of the supplier of the supplier of the supplication of the su	he safety data sheet	
Supplier	Energizer Trading Ltd Sword House Totteridge Road High Wycombe HP13 6DG UK Tel: +44 845 602 1995 euregulatory@energizer.com	
1.4. Emergency telephone nur	nber	
Emergency telephone	+44 1495 350234 Monday - Thursday: 0830 - 1700 Friday: 0830 - 1530	
National emergency telephone number	<ul> <li>Product information has been submitted to the UK National Poisons Information Service (NPIS) and is accessible to medical health professionals.</li> </ul>	
SECTION 2: Hazards identification	ation	
2.1. Classification of the subst	ance or mixture	
Classification (EC 1272/2008) Physical hazards	Not Classified	
Health hazards	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		
Hazard pictograms		

Signal word	Danger
Hazard statements	H304 May be fatal if swallowed and enters airways. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	<ul> <li>P102 Keep out of reach of children.</li> <li>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.</li> <li>P331 Do NOT induce vomiting.</li> <li>P391 Collect spillage.</li> <li>P501 Dispose of contents/ container in accordance with national regulations.</li> </ul>
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Contains	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics, Hydrocarbons, C10, aromatics, >1% naphthalene
Supplementary precautionary statements	P273 Avoid release to the environment. 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-alkan aromatics	es, isoalkanes, cyclics, <2%	50 - 100%
CAS number: 64742-47-8	EC number: 926-141-6	REACH registration number: 01- 2119456620-43-XXXX
Classification		
Asp. Tox. 1 - H304		
Amides, C16-18 and C18-unsatd.	, N,N-bis(hydroxyethyl)	1 - <2.5%
CAS number: 68603-38-3	EC number: 271-653-9	REACH registration number: 01- 2119951823-33-XXXX
Classification		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Aquatic Chronic 2 - H411		

Hydrocarbons, C10, aromatics, >1% naphthalene 1 - <2.5%		
CAS number: —	EC number: 919-284-0	REACH registration number: 01- 2119463588-24-XXXX
-	s, a UVCB substance of variable composit the registered classification as it is applied	tion.To prevent over-classification the d to the constituent chemical Naphthalene
Classification STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411		
2-ethylhexan-1-ol		1 - <2.5%
CAS number: 104-76-7	EC number: 203-234-3	REACH registration number: 01- 2119487289-20-XXXX
Classification Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335		
Naphthalene		0.25 - <0.5%
CAS number: 91-20-3	EC number: 202-049-5	
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Flam. Sol. 2 - H228 Acute Tox. 4 - H302 Carc. 2 - H351 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		
Ferrocene		0.2 - <0.3%
CAS number: 102-54-5 M factor (Chronic) = 10	EC number: 203-039-3	REACH registration number: 01- 2119978280-34-XXXX
Classification Flam. Sol. 1 - H228 Acute Tox. 4 - H302 Acute Tox. 4 - H332 Repr. 1B - H360FD STOT RE 2 - H373 Aquatic Chronic 1 - H410 The full text for all hazard statements is c	lisplayed in Section 16.	

**SECTION 4: First aid measures** 

## 4.1. Description of first aid measures

General information	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Inhalation	If throat irritation or coughing persists, proceed as follows. Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms are severe or persist.
Ingestion	Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms are severe or persist.
Skin contact	Remove contaminated clothing and rinse skin thoroughly with water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms are severe or persist after washing.
4.2. Most important symptoms	and effects, both acute and delayed
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Prolonged or repeated exposure to vapours in high concentrations may cause the following adverse effects: Drowsiness. 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 irritation.
4.3. Indication of any immedia	te medical attention and special treatment needed
Notes for the doctor	Treat symptomatically. Keep affected person under observation.
SECTION 5: Firefighting meas	sures
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 fr	om the substance or mixture
Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.
5.3. Advice for firefighters	
Protective actions during firefighting	Use water to keep fire exposed containers cool and disperse vapours.
Special protective equipment for firefighters	Use protective equipment appropriate for surrounding materials. Wear positive-pressure self- contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

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. Eliminate all
	ignition sources if safe to do so. Avoid contact with skin and eyes.

#### 6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Eliminate all ignition sources if safe to do so. Do not touch or walk into spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Use only non-sparking tools. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

#### 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. Wear protective clothing as described in Section 8 of this safety data sheet. Ground/bond container and receiving equipment. Take precautionary measures against static discharges. Keep away from heat, sparks and open flame. Provide adequate ventilation. Avoid contact with eyes and prolonged skin contact. Good personal hygiene procedures Advice on general occupational hygiene should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using this product. 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. Take precautionary measures against static discharges. 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 Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics (CAS: 64742-47-8) DNEL Not determined.

PNEC	Not determined.

#### Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl) (CAS: 68603-38-3)

DNEL	Workers - Inhalation; Long term systemic effects: 73.44 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 4.16 mg/kg/day
	Workers - Dermal; Long term local effects: 0.0936 mg/cm <sup>2</sup>
	General population - Inhalation; Long term systemic effects: 21.73 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 2.5 mg/kg/day
	General population - Dermal; Long term local effects: 0.0562 mg/cm <sup>2</sup>
	General population - Oral; Long term systemic effects: 6.25 mg/kg/day

PNEC	Fresh water; 0.007 mg/l marine water; 0.0007 mg/l STP; 0.83 g/l Sediment (Freshwater); 0.21115 mg/kg Soil; 0.09979 mg/kg <u>Hydrocarbons, C10, aromatics, &gt;1% naphthalene</u>
DNEL	Workers - Inhalation; Long term systemic effects: 151 mg/m <sup>3</sup> Workers - Dermal; Long term systemic effects: 12.5 mg/kg/day General population - Inhalation; Long term systemic effects: 32 mg/m <sup>3</sup> General population - Dermal; Long term systemic effects: 7.5 mg/kg/day General population - Oral; Long term systemic effects: 7.5 mg/kg/day
PNEC	Not determined.
	2-ethylhexan-1-ol (CAS: 104-76-7)
DNEL	Workers - Inhalation; Long term systemic effects: 12.8 mg/m <sup>3</sup> Workers - Inhalation; Long term local effects: 53.2 mg/m <sup>3</sup> Workers - Inhalation; Short term local effects: 53.2 mg/m <sup>3</sup> Workers - Dermal; Long term systemic effects: 23 mg/kg/day General population - Inhalation; Long term systemic effects: 2.3 mg/m <sup>3</sup> General population - Inhalation; Long term local effects: 26.6 mg/m <sup>3</sup> General population - Inhalation; Short term local effects: 26.6 mg/m <sup>3</sup> General population - Dermal; Long term systemic effects: 11.4 mg/kg/day General population - Oral; Long term systemic effects: 1.1 mg/kg/day
PNEC	Fresh water; 0.017 mg/l Fresh water, Intermittent release; 0.17 mg/l marine water; 0.002 mg/l STP; 10 mg/l Sediment (Freshwater); 0.284 mg/kg Sediment (Marinewater); 0.028 mg/kg Soil; 0.047 mg/kg Oral; 55 mg/kg
	Ferrocene (CAS: 102-54-5)
DNEL	Workers - Inhalation; Long term systemic effects: 0.02 mg/m <sup>3</sup> Workers - Inhalation; Short term systemic effects: 0.04 mg/m <sup>3</sup> Workers - Dermal; Long term systemic effects: 0.025 mg/kg/day General population - Inhalation; Long term systemic effects: 0.005 mg/m <sup>3</sup> General population - Dermal; Long term systemic effects: 0.013 mg/kg/day General population - Oral; Long term systemic effects: 0.013 mg/kg/day
PNEC	Fresh water; 0 mg/l marine water; 0 mg/l STP; 0.876 mg/l
8.2. Exposure controls	

## Protective equipment



Appropriate engineering controls	Provide adequate ventilation. All handling should only take place in well-ventilated areas. Avoid inhalation of vapours and spray/mists. Use explosion-proof electrical, ventilating and lighting equipment.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Frequent changes are recommended.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
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.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked.
Environmental exposure controls	Keep container tightly sealed when not in use.

## SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

9.1. Information on basic physical and chemical properties	
Appearance	Coloured liquid.
Colour	Light (or pale). Gold. Orange.
Odour	Characteristic.
Odour threshold	Not determined.
рН	Not determined.
Melting point	Not relevant.
Initial boiling point and range	Not determined.
Flash point	73°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not relevant.
Upper/lower flammability or explosive limits	Not relevant.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	0.8111
Bulk density	812.6 kg/m³
Partition coefficient	Not determined.

Auto-ignition temperature	Not relevant.
Decomposition Temperature	Not relevant.
Viscosity	2.154 cSt @ 40°C
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.
SECTION 10: Stability and read	ctivity
10.1. Reactivity	
Reactivity	The following materials may react with the product: Acids. Oxidising materials.
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures and when used as recommended.
10.3. Possibility of hazardous r	reactions
Possibility of hazardous reactions	Will not polymerise.
10.4. Conditions to avoid	
Conditions to avoid	Avoid excessive heat for prolonged periods of time.
10.5. Incompatible materials	
Materials to avoid	Strong oxidising agents.
10.6. Hazardous decomposition	n products
Hazardous decomposition products	None at ambient temperatures. Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.
SECTION 11: Toxicological info	ormation
11.1. Information on toxicologic	cal effects
Acute toxicity - oral Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
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)	1,086.63
Skin corrosion/irritation Skin corrosion/irritation	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	Based on available data the classification criteria are not met.		
Specific target organ toxicity -	single exposure		
STOT - single exposure	Based on available data the classification criteria are not met.		
Specific target organ toxicity - STOT - repeated exposure	repeated exposure Based on available data the classification criteria are not met.		
Aspiration hazard Aspiration hazard	Kinematic viscosity $\leq$ 20.5 mm <sup>2</sup> /s. May be fatal if swallowed and enters airways.		
Toxicological information on ir	ngredients.		
	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics		
Acute toxicity - o	ral		
Acute toxicity ora mg/kg)	al (LD₅o 15,000.0		
Species	Rat		
Notes (oral LD₅₀)	REACH dossier information. Read-across data.		
ATE oral (mg/kg)	) 15,000.0		
Acute toxicity - d	ermal		
Acute toxicity de mg/kg)	<b>rmal (LD₅o</b> 3,160.0		
Species	Rabbit		
Notes (dermal LI	<b>D</b> <sub>50</sub> ) REACH dossier information. Read-across data.		
ATE dermal (mg	<b>/kg)</b> 3,160.0		
Acute toxicity - inhalation			
Acute toxicity inh (LC₅₀ vapours m			
Species	Rat		
Notes (inhalation	LC <sub>50</sub> ) REACH dossier information. Read-across data.		
ATE inhalation (۱ mg/l)	vapours 4,951.0		
Skin corrosion/in	ritation		

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.	
Serious eye damage/irritat	ion	
Serious eye damage/irritation	Dose: 0.1 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. Read-across data.	
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Read-across data.	
Carcinogenicity		
Carcinogenicity	NOAEC 1100 mg/m <sup>3</sup> , Inhalation, Mouse REACH dossier information. Read-across data.	
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/m³, Inhalation, Rat REACH dossier information.	
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	
	Hydrocarbons, C10, aromatics, >1% naphthalene	
Acute toxicity - oral		
Acute toxicity oral (LD₅₀ mg/kg)	5,558.0	
Species	Rat	
Notes (oral LD₅₀)	REACH dossier information.	
ATE oral (mg/kg)	5,558.0	
Acute toxicity - dermal		
Notes (dermal LD₅₀)	LD₅₀ >2000 mg/kg, Dermal, Rabbit	
Skin corrosion/irritation		
Animal data	Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: Very slight erythema - barely	
	perceptible (1). Oedema score: No oedema (0). REACH dossier information.	
Serious eye damage/irritat		

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	Chromosome aberration: Negative. REACH dossier information.		
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information.		
Reproductive toxicity			
Reproductive toxicity - fertility	Three-generation study - NOAEC >= 1500 ppm, Inhalation, Rat REACH dossier information. Read-across data.		
Reproductive toxicity - development	Developmental toxicity: - NOAEL: > 450 mg/kg/day, Oral, Rat REACH dossier information. Read-across data.		
Specific target organ toxicit	ty - repeated exposure		
STOT - repeated exposure	NOAEC > 0.38 mg/l, Inhalation, Rat REACH dossier information.		
Aspiration hazard			
Aspiration hazard	1.38 cSt @ 20°C/68°F 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/irritati	on		
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 toxicit	ty - 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.
	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 (LD₅ 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)	cATpE: Converted Acute Toxicity Point Estimate.
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/irritati	on
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	
Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. REACH dossier information.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information.

#### **Reproductive toxicity**

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

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Toxicity

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

#### Ecological information on ingredients.

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) REACH dossier information.		
Acute toxicity - aquatic invertebrates	EL₅o, 48 hours: > 1000 mg/l, Daphnia magna REACH dossier information.		
Acute toxicity - aquatic plants	EL₅o, 72 hours: > 1000 mg/l, Pseudokirchneriella subcapitata REACH dossier information.		
Chronic aquatic toxicity			
Chronic toxicity - fish early life stage	NOELR, 28 days: 0.173 mg/l, Oncorhynchus mykiss (Rainbow trout) QSAR REACH dossier information.		
Chronic toxicity - aquatic invertebrates	NOELR, 21 days: 1.22 mg/l, Daphnia magna QSAR REACH dossier information.		
Hydrocarbons, C10, aromatics, >1% naphthalene			
Acute aquatic toxicity			
Acute toxicity - fish	LL₅₀, 96 hours: 2 - 5 mg/l, Oncorhynchus mykiss (Rainbow trout) REACH dossier information.		
Acute toxicity - aquatic invertebrates	EL₅o, 48 hours: 10 mg/l, Daphnia magna REACH dossier information.		
Acute toxicity - aquatic plants	EL₅₀, 72 hours: 1 - 3 mg/l, Pseudokirchneriella subcapitata REACH dossier information.		
Acute toxicity - microorganisms	NOELR, 48 hours: 1.892 mg/l, Tetrahymena pyriformis REACH dossier information. QSAR		
Chronic aquatic toxicity			
Chronic toxicity - fish early life stage	NOELR, 28 days: 0.487 mg/l, Oncorhynchus mykiss (Rainbow trout) REACH dossier information. QSAR		
Chronic toxicity - aquatic invertebrates	NOELR, 21 days: 0.851 mg/l, Daphnia magna REACH dossier information. QSAR		

2-ethylhexan-1-ol

Acute aquatic toxicity	
Acute toxicity - fish	LC₅₀, 96 hours: 17.1 mg/l, Leuciscus idus (Golden orfe) REACH dossier information.
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 39 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	EC₅₀, 72 hours: 11.5 mg/l, Scenedesmus subspicatus REACH dossier information.
	Ferrocene
Acute aquatic toxicity	
Acute toxicity - fish	LC₅₀, 48 hours: 24.5 mg/l, Leuciscus idus (Golden orfe) REACH dossier information.
Acute toxicity - aquatic invertebrates	EC₅₀, 24 hours: 2.5 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	EC₅₀, 72 hours: 1.03 mg/l, Desmodesmus 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
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.

#### 12.2. Persistence and degradability

Persistence and degradability No data available.

#### Ecological information on ingredients.

## 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.
	Hydrocarbons, C10, aromatics, >1% naphthalene
Biodegradation	Water - Degradation 57.95 %: 28 days

# odegradationWater - Degradation 57.95 %: 28 daysREACH dossier information.Inherently biodegradable.

#### 2-ethylhexan-1-ol

Biodegradation		Water - Degradation 79 - 99.9%: 2 weeks REACH dossier information.
		The substance is readily biodegradable.
		Ferrocene
Biodegradation		Water - Degradation (56%): 28 days REACH dossier information.
		Inherently biodegradable.
12.3. Bioaccumulative potent	tial	
Bioaccumulative potential	No data	available on bioaccumulation.
Partition coefficient	Not dete	ermined.
Ecological information on ing	redients.	
	Hydro	carbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics
Partition coeffic	ient	Scientifically unjustified. REACH dossier information.
		Hydrocarbons, C10, aromatics, >1% naphthalene
Bioaccumulative	e potential	No data available on bioaccumulation.
		2-ethylhexan-1-ol
Bioaccumulative	e potential	BCF: 25.33, REACH dossier information.
Partition coefficient		log Pow: 2.9 REACH dossier information.
		Ferrocene
Partition coeffic	ient	log Pow: 3.711 REACH dossier information.
12.4. Mobility in soil		
Mobility	The proc	duct is soluble in water.
Ecological information on ing	redients.	
	Hydro	carbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics
Mobility		The product has poor water-solubility.
Surface tension		26.4 mN/m @ 25°C
		Hydrocarbons, C10, aromatics, >1% naphthalene
Surface tension		30.4 mN/m @ 25°C/77°F REACH dossier information.
		2-ethylhexan-1-ol
Surface tension		47 mN/m @ 20°C/68°F REACH dossier information.
		Ferrocene
Adsorption/deso	orption	- log Koc: ~ 3 @ 25°C/77°F REACH dossier information.

12.5. Results of PBT and vPvE	3 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 consid	erations
13.1. Waste treatment method	s
General information	Dispose of waste product or used containers in accordance with local regulations
SECTION 14: Transport inform	nation
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	e
Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Ferrocene, Hydrocarbons, C10, aromatics, >1% naphthalene)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Ferrocene, Hydrocarbons, C10, aromatics, >1% naphthalene)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Ferrocene, Hydrocarbons, C10, aromatics, >1% naphthalene)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Ferrocene, Hydrocarbons, C10, aromatics, >1% naphthalene)
14.3. Transport hazard class(e	9 <u>8)</u>
ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9
Transport labels	
14.4. Packing group ADR/RID packing group	III

Ш

IMDG packing group

ADN packing group

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

Ш



#### 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	(-)

#### 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 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

Abbreviations and acronyms used in the safety data sheet	<ul> <li>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</li> <li>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</li> <li>IMDG: International Maritime Dangerous Goods.</li> <li>IATA: International Air Transport Association.</li> <li>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</li> <li>ATE: Acute Toxicity Estimate.</li> <li>DNEL: Derived No Effect Level.</li> <li>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</li> <li>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</li> <li>PBT: Persistent, Bioaccumulative and Toxic substance.</li> <li>vPvB: Very Persistent and Very Bioaccumulative.</li> <li>BCF: Bioconcentration Factor.</li> </ul>
Classification procedures according to Regulation (EC) 1272/2008	Asp. Tox. 1 - H304, Aquatic Chronic 2 - H411: Calculation method. EUH066: Expert judgement.
Revision comments	Revised classification. Section 1: Identification of the substance/mixture and of the company/undertaking // 1.3. Details of the supplier of the safety data sheet.
Revision date	19/03/2020
Revision	6
Supersedes date	26/11/2018
SDS number	170
Hazard statements in full	<ul> <li>H228 Flammable solid.</li> <li>H302 Harmful if swallowed.</li> <li>H304 May be fatal if swallowed and enters airways.</li> <li>H315 Causes skin irritation.</li> <li>H319 Causes serious eye irritation.</li> <li>H332 Harmful if inhaled.</li> <li>H335 May cause respiratory irritation.</li> <li>H336 May cause drowsiness or dizziness.</li> <li>H351 Suspected of causing cancer.</li> <li>H360FD May damage fertility. May damage the unborn child.</li> <li>H400 Very toxic to aquatic life.</li> <li>H410 Very toxic to aquatic life with long lasting effects.</li> <li>H311 Toxic to aquatic life with long lasting effects.</li> <li>H373 May cause damage to organs (Liver) through prolonged or repeated exposure if swallowed or if inhaled.</li> </ul>

The information supplied here is accurate to the best knowledge and belief of Energizer Trading Ltd, it is however, not intended as a warranty or representation, and should not be construed as such, for which Energizer Trading Ltd assumes any legal responsibility. Any information or advice obtained from Energizer Trading Ltd other than by means of this publication, and whether relating to Energizer Trading Ltd's products or other materials is also given in good faith. It remains at all times the responsibility of the customer, and user, to ensure that the materials are suitable for the particular purpose intended. Materials not manufactured, or supplied, by Energizer Trading Ltd when used instead of, or in conjunction with materials supplied by Energizer Trading Ltd, it is the customer's responsibility to ensure that all technical, and other information related to such materials is obtained from the manufacturer or supplier. Energizer Trading Ltd accepts no liability for the data contained within this document, as the information herein may be applied under conditions beyond our control, and in situations with which we may be unfamiliar. The information contained within this document is furnished upon condition that the customer and user of this product makes his own determination of the suitability of the product for his particular purpose.