

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 as amended by (EU) No. 2015/830.

XO1490TA Exocet Cooker

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

1.1 Product identifier

Product name: XO1490TA Exocet Cooker
Trade name(s): Exocet Cooker Additive (XO1490TA)
Product description: Liquid fuel additive.
Hazard Determining Component(s): Hydrocarbons, C10 aromatics, <1% naphthalene
2,6 di-tert-butylphenol
2-tert-butylphenol
2,4,6-tri-tert-butylphenol

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

Identified use(s): Liquid fuel additive.
Uses advised against: Follow supplier's recommendations on correct use of the product.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Fuel Additive Science Technologies Limited
Unit 24, Atcham Business Park,
Upton Magna, Shrewsbury,
Shropshire, SY4 4UG

Telephone: +44 (0)1743 761 415

E-mail: info@fastexocet.co.uk

1.4 Emergency telephone number

In case of emergency, call: +44 (0) 333 333 9962 (UK, 24/7, English)

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No. 1272/2008 (CLP)

Skin Irrit. 2	H315	Causes skin irritation.
Skin Sens. 1B	H317	May cause an allergic skin reaction

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Eye Dam. 1	H318	Causes serious eye damage.
STOT SE3 H336	H336	May cause drowsiness or dizziness.
STOT RE 2	H373	May cause damage to organs (liver) through prolonged or repeated exposure
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects.
Supplementary Hazard	EUH066	Repeated exposure may cause skin dryness or cracking.

2.2 Label elements

2.2.1. Label according to Regulation (EC) No. 1272/2008 (CLP)

Hazard pictogram(s):



Signal Word: Danger

Hazard Statement(s):	H304	May be fatal if swallowed and enters airways.	
	H315	Causes skin irritation.	
	H317	May cause an allergic skin reaction	
	H318	Causes serious eye damage.	
	H336	May cause drowsiness or dizziness. May cause damage to organs (liver) through prolonged or repeated exposure	
	H373	May cause damage to organs (liver) through prolonged or repeated exposure	
	H410	Very Toxic to aquatic life with long lasting effects.	
	Precautionary Statement(s):	P261	Avoid breathing fume/mist/vapours/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.
		P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
		P331	Do NOT induce vomiting.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P310	Immediately call a POISON CENTER/doctor.
P332 + P313		If skin irritation occurs: Get medical advice/attention.	
P501	Dispose of contents/container: disposal should be in accordance with local, state or national legislation.		

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Supplemental Hazard information (EU): EUH066 Repeated exposure may cause skin dryness or cracking.

Hazard Determining Component(s) Hydrocarbons, C10 aromatics, <1% naphthalene;
2,6 di-tert-butylphenol;
2-tert-butylphenol; 2,4,6-tri-tert-butylphenol

2.3 Other hazards

Combustible liquid and vapour.

SECTION 3: Composition

3.2 Mixtures

Chemical name	% w/w	CAS No.	EC No.	REACH Registration No.	Classification (Regulation (EC) No. 1272/2008 (CLP))	Other information
Hydrocarbons, C10, aromatics, <1% naphthalene	50 - 60	-	918-811-1	01-2119463583-34-0001	STOT SE 3 - H336; Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	EUH066
2,6 di-tert-butylphenol	10 - 25	128-39-2	204-884-0		Skin Irrit. 2 H315 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	
Hydrocarbons C10, Aromatics, <1% Naphthalene	10 – 15		918-811-1	01-2119463583-34	STOT SE 3 H336 (Narcotic effects) Asp. Tox. 1 H304 Aquatic Chronic 2 H411	WEL
2,4,6-tri-tert-butylphenol	< 4	732-26-3	211-989-5		Skin Sens. 1B; H317 STOT RE1 (Liver): H372 Aquatic Chronic 2 H411	PBT
2-tert-butylphenol	< 3	88-18-6	201-807-2		Acute Tox. 4 H302 Acute Tox. 4 H312 Acute Tox. 4 H332 Skin Corr. 1B H314 Eye Dam. 1 H318 Aquatic Chronic 2 H411	
1,2,4-trimethylbenzene	< 1	95-63-6	202-436-9		Flam. Liq. 3 H226 Acute Tox. 4 H332 Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335 (respiratory tract irritation) Aquatic Chronic 2 H411	WEL
2,4-di-tert-butylphenol	< 2	96-76-4	202-532-0		Skin Irrit. 2 H315 Eye Dam. 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	

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Chemical name	% w/w	CAS No.	EC No.	REACH Registration No.	Classification (Regulation (EC) No. 1272/2008 (CLP))	Other information
Naphthalene	< 1	91-20-3	202-049-5		Acute Tox. 4 H302 Carc. 2 H351 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	WEL
4-tert-butylphenol	< 1	98-54-4	202-679-0		Skin Irrit. 2 H315 Eye Dam. 1 H318 Repr. 2 H361fd Aquatic Chronic 2 H411	

See Section 16 for full description of H statements.

WEL – Workplace Exposure Limit. PBT – Substance is PBT/vPvB.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

GENERAL NOTES

If medical advice is needed, have the safety data sheet or label to hand.

INHALATION:

Remove person to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, obtain medical attention.

SKIN CONTACT:

Remove contaminated clothing and wash it before re-use. Rinse affected area with plenty of soap and water for at least 15 minutes. If skin irritation or rash occur, obtain medical attention.

EYE CONTACT:

Obtain medical attention immediately. Remove contact lenses if present and easy to do. Wash eyes immediately with plenty of water for at least 30 minutes.

INGESTION:

Obtain immediate medical attention. Do not induce vomiting. Provided the patient is conscious wash mouth out with water and provide patient with 200-300 ml of water to drink

SELF-PROTECTION OF THE FIRST AIDER:

When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.

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

Skin contact causes irritation, redness and pain. May cause an allergic skin reaction. Eye contact causes burns, watering, redness and pain. Inhalation of high concentrations of vapour may cause irritation to the respiratory tract. Ingestion may cause irritation to mouth, throat and digestive tract. If swallowed, aspiration into lungs may result in chemical pneumonia. May cause damage to organs (liver) through prolonged or repeated exposure.

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4.3 Indication of any immediate medical attention and special treatments needed:

In case of accident or if you feel unwell, seek medical advice immediately. If in contact with eyes, wash eyes immediately and seek immediate medical attention. If swallowed, patient should be monitored for signs of breathing difficulty as effects of aspiration may be delayed for up to 48 hours. If breathing is laboured, oxygen should be administered by qualified personnel.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing Media

Suitable extinguishing media: Foam, CO₂ or dry powder.
For large fires, use water spray.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Combustible liquid and vapour: flash point: 65°C (closed cup).

Vapour may form explosive mixture with air.

Combustion may liberate toxic fumes: Carbon monoxide, carbon dioxide, various hydrocarbons.

5.3 Advice for fire-fighters

A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep fire exposed containers cool by spraying with water. Do not allow product to enter drains, sewers or watercourses.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Eliminate sources of ignition. Ensure adequate ventilation. Avoid breathing fumes/vapour. Avoid contact with skin and eyes. Wear suitable personal protective equipment. Wear appropriate respirator when ventilation is inadequate. (See section 8).

6.1.2 For emergency responders

Keep unnecessary personnel away. Wear suitable protective clothing (See Section 8). Contaminated clothing should be thoroughly cleaned.

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6.2 Environmental precautions

Collect spillage. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

6.3 Methods and materials for containment and cleaning up

6.3.1 For containment

Stop the leak if it is safe to do so. Contain the spillage with sand, earth or any suitable adsorbent material.

6.3.2 For cleaning up

Use sand, earth or any suitable non-combustible adsorbent material to adsorb spillages. Using non-sparking tools transfer the contaminated adsorbent material into a UN approved container for disposal. Containers should be sealed before being disposed of via an authorised waste disposal contractor.

6.3.3 Other advice

None.

6.4 Reference to other sections

See Section 8 for personal protective equipment. See Section 13 for waste disposal.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Provide adequate ventilation, including local extraction, to ensure occupational exposure limits are not exceeded. Avoid breathing fumes/vapour. Avoid contact with skin and eyes. Wear suitable personal protective equipment (See Section 8). Persons with a history of skin sensitisation problems should avoid exposure to this product.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Take action to prevent static discharges.

Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated clothing should be thoroughly cleaned or disposed of as hazardous waste.

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7.2 Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Keep from direct sunlight. Store locked up. Store only in the original container. Keep container tightly closed. Store in a cool, well ventilated place. Empty containers retain product residue and can be hazardous.

Maximum handling temperature: 50°C.

Keep away from oxidising agents.

7.3 Specific end uses(s)

Liquid fuel additive.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Workplace exposure limits

Substance	Exposure Limit Type	CAS No.	RCP- TWA		STEL (15 min)		Comments
			ppm	mg/m ³	ppm	mg/m ³	
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	Supplier WEL*	-	-	1,200	-	-	-
1,2,4-trimethylbenzene	WEL (UK)	95-63-6	25	125			Trimethylbenzenes, all isomers or mixtures
naphthalene	WEL (UK)	91-20-3	[10]	[53]	[15]	[80]	(1)

WEL: Workplace Exposure Limit – UK National Exposure limit - EH40/2005 3rd Ed. (2018), HSE

ILV: Indicative Limit Value – European Community limit, 91/322/EEC

IOELV: Indicative Occupational Exposure Limit Value - European Community limit - 2000/39/EC, 2006/15/EC, 2009/161/EU

* EU HSPA (Hydrocarbon Solvents Producers Association) (RCP Aromatic Solvents 180 – 215)

(1) - The UK Advisory Committee on Toxic Substances has expressed concern that, for the OELs shown in parentheses, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement but are omitted from the published 2005 and 2018 lists.

DNELs (Workers)

Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
Hydrocarbons, C10 aromatics, <1% naphthalene	Inhalation	No data available		151 mg/m ³	No data available
	Dermal	No data available		12.5 mg/kg bw/day	No data available
2,6 di-tert-butylphenol	Inhalation	No exposure expected		70.61 mg/m ³	No exposure expected
	Dermal	No hazard identified		11.25 mg/kg bw/day	No exposure expected
2,4,6-tri-tert-butylphenol	Inhalation	300 µg/m ³	No hazard identified	100 µg/m ³	No hazard identified
	Dermal	1.8 mg/kg bw/day	No hazard	60 µg/kg bw/day	No hazard identified

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Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
			identified		
2-tert-butylphenol	Inhalation	Hazard unknown	Medium hazard	1.47 mg/m ³	Medium hazard
	Dermal	Hazard unknown	Medium hazard	Hazard unknown	Medium hazard
1,2,4-trimethylbenzene	Inhalation	No data available		100 mg/m ³	100 mg/m ³
2,4-di-tert-butylphenol	Inhalation	No hazard identified		44.1 mg/m ³	No hazard identified
	Dermal	No hazard identified		6.25 mg/kg bw/day	No hazard identified
Naphthalene	Inhalation	Low hazard	No hazard identified	25 mg/m ³	25 mg/m ³
	Dermal	Low hazard	No hazard identified	3.57 mg/kg bw/day	No hazard identified
4-tert-butylphenol	Inhalation	Low hazard	No hazard identified	500 µg/m ³	No hazard identified
	Dermal	Medium hazard	Medium hazard	71 µg/kg bw/day	Medium hazard

DNELs (Consumers)

Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
Hydrocarbons, C10 aromatics, <1% naphthalene	Inhalation	No data available		32 mg/m ³	No data available
	Dermal	No data available		7.5 mg/kg bw/day	No data available
	Oral	No data available		7.5 mg/kg bw/day	No data available
2,6 di-tert-butylphenol	Inhalation	No exposure expected		20.9 mg/m ³	No exposure expected
	Dermal	No hazard identified		6.75 mg/kg bw/day	No exposure expected
	Oral	No hazard identified		6.75 mg/kg bw/day	No exposure expected
2,4,6-tri-tert-butylphenol	ALL	No hazard identified			
2-tert-butylphenol	Inhalation	Hazard unknown	Medium hazard	360 µg/m ³	Medium hazard
	Dermal	Hazard unknown	Medium hazard	Medium hazard	Medium hazard
	Oral	-	Hazard unknown	170 µg/kg bw/day	-
1,2,4-trimethylbenzene	Inhalation	-	-	29.4 mg/m ³	29.4 mg/m ³
	Dermal	-	-	9512 mg/kg bw/day	-
2,4-di-tert-butylphenol	Inhalation	No hazard identified		13 mg/m ³	No hazard identified
	Dermal	No hazard identified			
	Oral	No hazard identified	-	3.75 mg/kg bw/day	-
naphthalene	ALL	No hazard identified			
4-tert-butylphenol	Inhalation	Low hazard	No hazard identified	90 µg/m ³	No hazard identified
	Dermal	Medium hazard	Medium hazard	26 µg/kg bw/day	Medium hazard
	Oral	Low hazard	-	26 µg/kg bw/day	-

PNECs

Substance	Aqua (fresh water)	Aqua (marine water)	Aqua (intermittent releases)	Sewage Treatment Plants	Sediment (fresh water)	Sediment (marine water)	Soil	Hazard for Predators
Hydrocarbons, C10 aromatics, <1% naphthalene	No data available							
2,6 di-tert-butylphenol	700 ng/L	70 ng/L	4.5 µg/L	10 mg/L	317 µg/kg sediment dw	31.7 µg/kg sediment dw	697 µg/kg soil dw	60 mg/kg food
2,4,6-tri-tert-butylphenol	72 ng/L	7.2 ng/L	720 ng/L	10 mg/L	1.368 mg/kg sediment dw	136.8 µg/kg sediment dw	273.5 µg/kg soil dw	1 mg/kg food

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Substance	Aqua (fresh water)	Aqua (marine water)	Aqua (intermittent releases)	Sewage Treatment Plants	Sediment (fresh water)	Sediment (marine water)	Soil	Hazard for Predators
2-tert-butylphenol	23.1 µg/L	2.31 µg/L	24 µg/L	100 µg/L	2.284 mg/kg sediment dw	228.4 µg/kg sediment dw	443.3 µg/kg soil dw	(1)
1,2,4-trimethylbenzene	120 µg/L	120 µg/L	120 µg/L	2.41 mg/L	13.56 mg/kg sediment dw	13.56 mg/kg sediment dw	2.34 mg/kg soil dw	-
2,4-di-tert-butylphenol	1.46 µg/L	146 ng/L	3.7 µg/L	100 µg/L	661 µg/kg sediment dw	66.1 µg/kg sediment dw	1.2 mg/kg soil dw	33.33 mg/kg food
Naphthalene	2.4 µg/L	2.4 µg/L	20 µg/L	2.9 mg/L	67.2 µg/kg sediment dw	67.2 µg/kg sediment dw	53.3 µg/kg soil dw	(1)
4-tert-butylphenol	10 µg/L	1 µg/L	48 µg/L	1.5 mg/L	270 µg/kg sediment dw	27 µg/kg sediment dw	250 µg/kg soil dw	46.67 mg/kg food

(1) No potential for bioaccumulation

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Provide adequate ventilation, including local extraction, to ensure that occupational exposure limits are not exceeded.

8.2.2 Personal protection

Eye protection: Goggles or safety glasses with side shields giving complete protection to eyes. (EN 166)

Skin protection:

Hand protection: Chemical resistant gloves (EN ISO 374-1:2016). If prolonged or repeated contact is likely, chemical-resistant gloves, EN ISO 374-1:2016 Type A or B, are recommended with resistance against aromatic hydrocarbons (F). Contact glove supplier to confirm suitable glove material, thickness and breakthrough times.

Other: Long sleeve protective clothing. Plastic apron. Rubber boots.

Respiratory protection: In the case of insufficient ventilation, wear respiratory equipment suitable for organic gases and vapours with a boiling point above 65°C. Filter type A. (EN 14387:2004).

Thermal hazards: Wear suitable temperature resistant gloves and protective clothing if the product is heated.

Environmental exposure controls Inform environmental manager of all incidents involving this product.

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SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Amber liquid.
Odour:	Aromatic.
Odour threshold:	Not available.
pH:	Not applicable.
Melting/freezing point:	185-215 °C
Initial boiling point and boiling range:	Not available.
Flash point:	65 °C (Closed cup).
Evaporation rate:	Not available.
Flammability (solid; gas):	Not applicable.
Upper/lower flammability or explosive limits:	0.7%-6% (v/v)
Vapour pressure:	Not available.
Vapour density:	Not available.
Relative density:	0.895 (15 °C) (Water =1)
Solubility(ies):	Immiscible in water. Miscible in aromatic solvents.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition temperature:	~415 °C
Decomposition temperature:	Not available.
Viscosity:	1.55cSt (20 °C).
Explosive properties:	Not explosive. Vapours may form explosive mixture in air.
Oxidising properties:	Not oxidising.

9.2 Other information

None.

SECTION 10: Stability and Reactivity

10.1 Reactivity	Reacts with oxidising agents.
10.2 Chemical stability	Stable under normal conditions.

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10.3 Possibility of hazardous reactions	No hazardous reactions expected during normal use.
10.4 Conditions to avoid	Keep away from sources of ignition, hot surfaces, direct sunlight. Contact with incompatible materials.
10.5 Incompatible materials	Oxidising agents.
10.6 Hazardous decomposition products	Combustion may liberate toxic fumes: Carbon monoxide, carbon dioxide, various hydrocarbons.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity – oral	Not classified. ATE mix > 2000 mg/kg.
Acute toxicity – dermal	Not classified. ATE mix > 2000 mg/kg.
Acute toxicity – inhalation	Not classified. Based on the available data, the classification criteria are not met.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye damage
Skin sensitisation	Skin sensitiser Class 1B. May cause an allergic skin reaction.
Respiratory sensitisation	No evidence of respiratory sensitisation.
Germ cell mutagenicity	No evidence of mutagenicity.
Carcinogenicity	Not classified. Contains naphthalene below the limits for classification.
Reproductive toxicity	No evidence of reproductive toxicity.
Specific Target Organ Toxicity – single exposure	Inhalation of high concentrations of vapour may cause drowsiness or dizziness.
Specific Target Organ Toxicity – repeated exposure	May cause damage to organs (liver) through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways. Risk of aspiration into lungs resulting in chemical pneumonia.

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Information on likely routes of exposure

Inhalation	Inhalation of high concentrations of vapour may cause drowsiness or dizziness.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	May be fatal if swallowed and enters airways. Risk of aspiration into lungs resulting in chemical pneumonia. Ingestion may cause irritation to mouth, throat and digestive tract. May cause damage to organs (liver) through prolonged or repeated exposure.

Symptoms related to the physical, chemical and toxicological characteristics May cause an allergic skin reaction. Skin contact causes irritation, redness and pain. Eye contact causes burns, watering, redness and pain. Inhalation of high concentrations of vapour may cause drowsiness or dizziness. If swallowed, aspiration into lungs may result in chemical pneumonia. Ingestion may cause irritation to mouth, throat and digestive tract. May cause damage to organs (liver) through prolonged or repeated exposure

Mixture versus substance information No data available.

Other information None.

SECTION 12: Ecological Information

12.1 Toxicity	<p>Very toxic to aquatic life with long lasting effects.</p> <p>No data available on the mixture. The following data are for the product components:</p> <p>Hydrocarbons, C10 aromatics, <1% naphthalene</p> <table border="0"> <tr> <td><i>Oncorhynchus mykiss</i></td> <td>LL50</td> <td>96h</td> <td>2 - 5 mg/L</td> </tr> <tr> <td><i>Oncorhynchus mykiss</i></td> <td>NOELR</td> <td>28d</td> <td>0.441 mg/L</td> </tr> <tr> <td><i>Daphnia magna</i></td> <td>EL50</td> <td>48h</td> <td>3 - 10 mg/L</td> </tr> <tr> <td><i>Daphnia magna</i></td> <td>NOELR</td> <td>21d</td> <td>0.771 mg/L</td> </tr> <tr> <td><i>Pseudokirchneriella subcapitata</i></td> <td>EL50</td> <td>72h</td> <td>1 - 3 mg/l</td> </tr> </table> <p>2,6 di-tert-butylphenol</p> <table border="0"> <tr> <td><i>Daphnia magna</i></td> <td>EC50</td> <td>48h</td> <td>0.45 mg/L</td> </tr> <tr> <td><i>Daphnia magna</i></td> <td>NOEC</td> <td>21d</td> <td>0.035 mg/L</td> </tr> </table> <p>2,4,6-tri-tert-butylphenol</p> <table border="0"> <tr> <td><i>Cyprinus carpio</i></td> <td>LC50</td> <td>96h</td> <td>48 µg/L</td> </tr> <tr> <td><i>Daphnia magna</i>:</td> <td>EC50</td> <td>48h</td> <td>72 µg/L</td> </tr> </table>	<i>Oncorhynchus mykiss</i>	LL50	96h	2 - 5 mg/L	<i>Oncorhynchus mykiss</i>	NOELR	28d	0.441 mg/L	<i>Daphnia magna</i>	EL50	48h	3 - 10 mg/L	<i>Daphnia magna</i>	NOELR	21d	0.771 mg/L	<i>Pseudokirchneriella subcapitata</i>	EL50	72h	1 - 3 mg/l	<i>Daphnia magna</i>	EC50	48h	0.45 mg/L	<i>Daphnia magna</i>	NOEC	21d	0.035 mg/L	<i>Cyprinus carpio</i>	LC50	96h	48 µg/L	<i>Daphnia magna</i> :	EC50	48h	72 µg/L
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<i>Pseudokirchneriella subcapitata</i> :	NOEC	72h	40 µg/L
Microorganisms:	EC50	3h	1 g/L
2-tert-butylphenol			
<i>Freshwater fish</i>	LC50	96h	2.682 mg/L
<i>Daphnia Magna</i>	EC50	48h	3.4 mg/L
<i>Scendesmus subspicatus</i>	EC50	72h	6.5 mg/L
1,2,4-trimethylbenzene			
<i>Pimephales promelas</i>	LC50	96h	7.72 mg/L
<i>Daphnia magna</i>	LC50	48h	3.6 mg/L
2,4-di-tert-butylphenol			
<i>Freshwater fish</i>	LC50	96h	1.4 mg/L
<i>Daphnia</i>	EC50	48h	0.5 mg/L
<i>Algae</i>	EC50	72h	0.37 mg/L
Naphthalene			
<i>Oncorhynchus mykiss</i>	LC50	96h	1.6 mg/L
<i>Daphnia magna</i>	EC50	48h	2.16 mg/L
<i>Pseudokirchneriella subcapitata</i>	EC50	4h	2.96 mg/L
4-tert-butylphenol			
<i>Oncorhynchus mykiss</i>	LC50	96h	5.1 mg/L
<i>Daphnia magna</i>	EC50	48h	3.9 mg/L
<i>Algae</i>	EC50	72h	14 mg/L

12.2 Persistence and degradability

No data available on the mixture. The following data are for the products components:

Hydrocarbons, C10 aromatics, <1% naphthalene:

Inherently biodegradable.

2,6 di-tert-butylphenol: *Not readily biodegradable. Meets criteria for Persistence.*

2,4,6-tri-tert-butylphenol: *Not readily biodegradable. Meets criteria for Persistence.*

2-tert-butylphenol: - *Inherently biodegradable.*

1,2,4-trimethylbenzene: - *Readily biodegradable, but failing 10-day window. Not expected to persist in the environment.*

2,4-di-tert-butylphenol: - *does not readily biodegrade and is not inherently biodegradable. Meets criteria for Persistence.*

Naphthalene: - *Readily biodegradable.*

4-tert-butylphenol: - *Readily biodegradable but failing the 10-day window. Not expected to persist in the environment.*

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According to Regulation (EC) No. 1907/2006 as amended by (EU) No. 2015/830.

12.3 Bioaccumulative potential	Hydrocarbons, C10 aromatics, <1% naphthalene: <i>Not expected to bioaccumulate.</i> 2,6 di-tert-butylphenol: <i>Not expected to bioaccumulate.</i> <i>BCF: 660.</i> 2,4,6-tri-tert-butylphenol: <i>Expected to bioaccumulate.</i> <i>BCF: 23200</i> 2-tert-butylphenol: <i>Low potential for bioaccumulation.</i> <i>BCF: 78.</i> 1,2,4-trimethylbenzene: <i>Not expected to bioaccumulate.</i> <i>BCF: 243.</i> 2,4-di-tert-butylphenol: <i>Not expected to bioaccumulate.</i> <i>BCF: 436</i> Naphthalene: <i>Low potential for bioaccumulation.</i> 4-tert-butylphenol: <i>Low potential for bioaccumulation.</i>
12.4 Mobility in soil	The product is insoluble and will float on water. Volatile components of the product will distribute to air.
12.5 Results of PBT and vPvB assessment	Contains 2 – 4% 2,4,6-tri-tert-butylphenol which is a PBT substance.
12.6 Other adverse effects	None known.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

To be disposed of as hazardous waste. Disposal should be in accordance with local, state or national legislation.

Empty containers retain product residue and can be hazardous. Dispose of uncleaned empty containers as hazardous waste in accordance with local, state or national legislation.

Contaminated adsorbent must be removed in sealed, plastic lined drums and disposed of via an authorised waste disposal contractor. Do not empty into drains; dispose of this material and its container in a safe way.

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 as amended by (EU) No. 2015/830.

SECTION 14: Transport Information

ADR

14.1 UN Number	3082
14.2 UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 2,6-di-tert-butylphenol and Hydrocarbons, C10 aromatics, <1% naphthalene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for the user	Transport Category: 3 Tunnel Restriction Code: (-) Read SDS and supplier instructions on correct use of the product.

ADN

14.1 UN Number	3082
14.2 UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 2,6-di-tert-butylphenol and Hydrocarbons, C10 aromatics, <1% naphthalene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

RID

14.1 UN Number	3082
14.2 UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 2,6-di-tert-butylphenol and Hydrocarbons, C10 aromatics, <1% naphthalene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

IATA/ICAO

14.1 UN Number	3082
14.2 UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 2,6-di-tert-butylphenol and

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According to Regulation (EC) No. 1907/2006 as amended by (EU) No. 2015/830.

		Hydrocarbons, C10 aromatics, <1% naphthalene)
14.3	Transport hazard class(es)	9
14.4	Packing group	III
14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

IMDG

14.1	UN Number	3082
14.2	UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 2,6-di-tert-butylphenol and Hydrocarbons, C10 aromatics, <1% naphthalene)
14.3	Transport hazard class(es)	9
14.4	Packing group	III
14.5	Environmental hazards	Marine pollutant.
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	The product is not intended to be transported in bulk.

SECTION 15: Regulatory Information

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	This Safety Data Sheet was prepared in accordance with EC Regulation (EC) No. 1907/2006 as amended. The product has been classified in accordance with Regulation (EC) No. 1272/2008 (CLP).
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Authorisations and/or restrictions on use:

None

Included in CoRAP: 2,4,6-tri-tert-butylphenol, Naphthalene, 4-tert-butylphenol, 2,4-di-tert-butylphenol.
Not applicable.

15.2 Chemical Safety Assessment

SECTION 16: Other Information

i) Indication of changes:

Version:	4.0
Issue date:	07/12/2018
Previous Version:	3.0
Issue date of previous version:	23/12/2015

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 as amended by (EU) No. 2015/830.

Sections changed from previous version: 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16

ii) Abbreviations and acronyms:

ATE	Acute Toxicity Estimate
BCF:	Bioconcentration factor
bw:	Body weight
CAS:	Chemical Abstracts Service
CoRAP	Community Rolling Action Plan
dw:	Dry weight
EINECS:	European Inventory of Existing Commercial Chemical Substances
EC ₅₀ :	Effective Concentration 50%
EL ₅₀ :	Effective Loading rate 50%
LC ₅₀ :	Lethal Concentration 50%
LD ₅₀ :	Lethal Dose 50%
LL ₅₀ :	Lethal Loading rate 50%
LOEL:	Lowest Observed Effect Level
NOEL:	No Observed Effect Level
PBT:	Persistent, Bioaccumulative and Toxic.
vPvB:	Very Persistent and Very Bioaccumulative.

iii) References:

Supplier's Safety Data Sheets.
 ECHA REACH dossiers
 Regulation (EC) No. 1272/2008.
 Regulation (EC) No. 1907/2006
 Regulation (EU) No. 2015/830
 HSE EH40
 GESTIS ILV

iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 (CLP)

Classification according to Regulation (EC) No. 1272/2008	Classification procedure
Skin Irrit 2 H315	Calculation.
Eye Dam. 1 H318	Calculation.
STOT SE3 H336	Expert Judgement
STOT RE2: H373	Calculation
Skin Sens 1B H317	Calculation
Asp. Tox. 1 H304	Calculation
Aquatic Chronic 1 H410	Calculation: additivity approach

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 as amended by (EU) No. 2015/830.

v) Full text of relevant Hazard Category Codes and H-Statements:

Hazard Category Codes Acute Tox. 4: Acute toxicity, Category 4
Aquatic Acute 1: Hazardous to the aquatic environment, Acute, Category 1
Aquatic Chronic 1 or 2: Hazardous to the aquatic environment, Chronic, Categories 1 or 2
Asp. Tox. 1: Aspiration hazard, Category 1
Carc. 2: Carcinogenicity, Category 2
Eye Dam. 1: Serious eye damage/irritation, Category 1
Eye Irrit. 2: Serious eye damage/irritation, Category 2
Repr. 2: Reproductive toxicity, Category 2
Skin Corr. 1C: Skin corrosion/irritation, Category 1C.
Skin Irrit. 2: Skin corrosion/irritation, Category 2
Skin Sens 1B: Skin sensitiser, Category 1B
STOT RE 1 or 2 – Specific target organ toxicity – repeat exposure, Category 1 or 2
STOT SE 3: Specific target organ toxicity — single exposure, Category 3

Hazard Statement(s): H302: Harmful if swallowed.
H304: May be fatal if swallowed and enters airways.
H312: Harmful in contact with skin.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage
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.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H372: Causes damage to organs (liver) through prolonged or repeated exposure
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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Supplemental Hazard information (EU): EUH066: Repeated exposure may cause skin dryness or cracking.

vi) Training Advice

Always read the label, safety data sheet and product information before use.

vii) Additional information

No further information available.

Disclaimer:

THE INFORMATION PRESENTED HEREIN IS BELIEVED TO BE ACCURATE, BUT IS NOT WARRANTED TO BE, WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM, IN ADVANCE OF NEED, THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.