

XO1488TA

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

1.1 Product identifier

Product name	XO1488TA
Trade name	Cooker Protect
Product description	Liquid fuel additive
Contains	Hydrocarbons, C10, aromatics, <1% naphthalene Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol. Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO] p-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	Additive not for consumer use. Additive for use by professional users only. 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
Address	Unit 29, Atcham Business Park, Upton Magna, Shrewsbury, Shropshire
Postcode	SY4 4UG
Telephone	+44 (0)1743 761415
E-mail address of competent person responsible	info@fastexocet.co.uk

1.4 Emergency telephone number

In case of emergency, call	+44 (0) 333 333 9962 (UK number, 24 hours, 7 days)
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Asp. Tox. 1	H304	May be fatal if swallowed and enters airways
Skin Corr. 1B	H314	Causes severe skin burns and eye damage.
Skin Sens. 1A	H317	May cause an allergic skin reaction.
Eye Dam. 1	H318	Causes serious eye damage.
STOT SE 3	H336	May cause drowsiness or dizziness
Muta. 2	H341	Suspected of causing genetic defects.
Carc. 1B	H350	May cause cancer.
STOT RE2 (gastrointestinal tract, respiratory)	H373	May cause damage to organs (gastrointestinal tract, respiratory) through prolonged or repeated exposure.
Aquatic Acute 1	H400	Very toxic to aquatic life
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Hazard
pictogram(s)



Signal Word

Danger

H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H373	May cause damage to organs (gastrointestinal tract, respiratory) through prolonged or repeated exposure.
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects.

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Precautionary Statement(s)	P201	Obtain special instructions before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P260	Do not breathe fume/ vapours.
	P264	Wash hands thoroughly after handling.
	P271	Use only outdoors or in a well-ventilated area.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
	P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
	P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308 + P313	IF exposed or concerned: Get medical advice/attention.
	P391	Collect spillage
	P362 + P364	Take off contaminated clothing and wash it before reuse
	P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up.
	P501	Dispose of contents/container in accordance with local, state or national legislation.
Supplemental information on the label		
Supplementary Hazard Information (EU)	EUH066:	Repeated exposure may cause skin dryness or cracking.
	EUH071	Corrosive to the respiratory tract.

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Hazardous components which must be on the label

Hydrocarbons, C10, aromatics, <1% naphthalene
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]
p-tert-butylphenol

Special labelling of certain mixtures

Restricted to professional users.

2.3 Other hazards

Spillages make surfaces slippery.

This mixture does not contain substances that are PBT or vPvB. This mixture does not cause endocrine disruption.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical Name	Identification Number(s) CAS No. / EC No. / Index No.	REACH Registration No.	% [weight]	Classification in accordance with Regulation (EC) No 1272/2008 (CLP)	Additional information*
Hydrocarbons, C10 aromatics, <1% naphthalene	- 918-811-1 -	01-2119463583-34-0001 UK-01-0329875101-1-0002	< 60	Asp. Tox. 1 H304 STOT SE 3 H336 Aquatic Chronic 2 H411	EUH066 WEL
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol	- 907-745-9 -	01-2119538013-51	20 – 40	Eye Dam. 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	M (acute) =1 M (chronic) =1
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	- - 612-290-00-1	-	20 – 30	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 3; H311 Skin Corr. 1B; H314 Skin Sens. 1A; H317 Eye Dam. 1; H318 Muta. 2; H341 Carc. 1B; H350 STOT RE 2; H373 (gastrointestinal tract, respiratory) Aquatic Chronic 2; H411	EUH071
Naphthalene	91-20-3 202-249-5 601-052-00-2	Compliant	< 0.5	Acute Tox. 4 H302 Carc. 2 H351 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	WEL
p-tert-butylphenol (**)	98-54-4 202-679-0 604-090-00-8	-	< 0.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361f Aquatic Chronic 1, H410	WEL M = 1

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*Includes information relating to specific concentration limits, M-factors, ATEs, particle characteristics, supplementary hazard information, and indicates workplace exposure limits shown in Section 8.

** Identified as endocrine disruptor with environmental effects.

For full text of H-statements, see SECTION 16.

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. If exposed or concerned, get medical advice/attention.
Following inhalation	Corrosive to the respiratory tract. Immediately call a POISON CENTER/doctor. Remove person to fresh air and keep comfortable for breathing.
Following skin (or hair) contact	Causes severe skin burns and eye damage. May cause an allergic skin reaction. Immediately call a POISON CENTER or doctor. Take off immediately all contaminated clothing. Rinse skin with water (or shower).
Following eye contact	Causes serious eye damage. Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Following ingestion	May be fatal if swallowed and enters airways. Immediately call a POISON CENTER/doctor. Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, the patient should lean forward to reduce the risk of aspiration.
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

May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Symptoms include severe skin burns, blistering, redness and pain. Ingestion can cause burns to mouth, throat and digestive tract. May cause drowsiness or dizziness.

Delayed effects: Suspected of causing genetic defects. May cause cancer. May cause damage to organs (respiratory tract, gastrointestinal tract) through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatments needed

Treat symptomatically. 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: Firefighting measures

5.1 Extinguishing Media

Suitable extinguishing media: Foam, carbon dioxide (CO₂) or dry powder.

Unsuitable extinguishing media: Do not use water jet or wet chemical fire extinguisher.

5.2 Special hazards arising from the substance or mixture

Combustible liquid.

Vapour may form explosive mixture with air. Vapour is heavier than air and may accumulate in confined spaces. Cool containers exposed to flames with plenty of water until well after the fire is out.

This material is very toxic to aquatic life with long lasting effects; fire water contaminated with the material must be contained. Do not empty into drains.

Hazardous combustion products

Combustion may liberate toxic fumes: Carbon monoxide, carbon dioxide, nitrogen oxides, various hydrocarbons and formaldehyde.

5.3 Advice for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Evacuate area. Move containers from the fire area if it is safe to do so.

Fight any fire from a safe distance.

This material is very toxic to aquatic life with long lasting effects; do not allow product or run-off to enter drains, sewers or watercourses.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas as a priority. Ensure adequate ventilation. Do not touch or walk through spilt material. Avoid contact with skin, eyes, or clothing. Avoid breathing fume/vapours. No smoking.

For emergency responders

Keep unnecessary personnel away. Wear suitable protective clothing appropriate respirator when ventilation is inadequate (see Section 8). Do not touch or walk through spilt material. Avoid contact with skin, eyes, or clothing. Avoid breathing fume/vapours.

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6.2 Environmental precautions

Very toxic to aquatic life with long lasting effects. Do not allow to enter drains, sewers or watercourses. Collect spillage. 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

For containment	Stop the leak if it is safe to do so. Contain the spillage with sand, earth or any suitable adsorbent material.
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.
Other advice	Caution – spillage area may be slippery. Collect spillage. Avoid release to the environment.

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

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Do not breath fume/ vapours. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection (see Section 8). Take off immediately all contaminated clothing and wash it before reuse.

Avoid release to the environment. Dispose of contents/container in accordance with local, state or national legislation.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end uses(s)

Liquid fuel additive.
Additive for use by professional users only.

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The restriction for professional users no longer applies if the product is added to the following fuels and oil products:

- motor fuels which are covered by Directive 98/70/EC,
- mineral oil products intended for use as fuel in mobile or fixed combustion plants,
- fuels sold in closed systems (e.g. liquid gas bottles).

Follow supplier's recommendations on correct use of the product.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits

Substance	Source	Limit value - 8 hours		Limit value - short term*		Comments
		ppm	mg/m ³	ppm	mg/m ³	
Hydrocarbons, C10 aromatics, <1% naphthalene	EH 40	-	500	-	-	Total hydrocarbon vapour (1)
Formaldehyde	GESTIS ILV	0.3	0.37	0.6	0.74	European Union (2)
	EH40	2	2.5	2	2.5	UK (Carc)
Naphthalene	GESTIS ILV	10	50	-	-	Ireland
p-tert-butylphenol	GESTIS ILV	0.08	0.5	0.16	1	European Union (3)

Comments

* Short term is 15 minutes unless otherwise specified.

- 1 Hydrocarbon solvents supplied as a complex mixture, HSE ACTS procedure, see EH40, paragraphs 84-88
 - 2 Binding occupational exposure limit value (BOELV)
 - 3 Austria, Denmark, Germany, Switzerland
- Carc Capable of causing cancer and/or heritable genetic damage

Derived no-effect level (DNEL)

Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
Hydrocarbons, C10 aromatics, <1% naphthalene	Inhalation	No hazard identified	No hazard identified	151 mg/m ³ repeated dose toxicity	No hazard identified
	Dermal	No hazard identified	No hazard identified	12.5 mg/kg bw/day repeated dose toxicity	No hazard identified
	Eyes	No hazard identified	No hazard identified	No hazard identified	No hazard identified
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butyl phenol	Inhalation	-	-	3.5 mg/m ³ repeated dose toxicity	-
	Dermal	-	-	0.500 mg/kg bw/day repeated dose toxicity	-

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Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
	Eyes	High hazard (no threshold derived)	High hazard (no threshold derived)	High hazard (no threshold derived)	High hazard (no threshold derived)
Naphthalene	Inhalation	Low hazard (no threshold derived)	No hazard identified	25 mg/m ³ repeated dose toxicity	25 mg/m ³ irritation (respiratory tract)
	Dermal	Low hazard (no threshold derived)	No hazard identified	3.57 mg/kg bw/day repeated dose toxicity	No hazard identified
	Eyes	No hazard identified	No hazard identified	No hazard identified	No hazard identified
p-tert-butylphenol	Inhalation	Low hazard (no threshold derived)	No hazard identified	0.500 mg/m ³ repeated dose toxicity	No hazard identified
	Dermal	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)	0.071 mg/kg bw/day repeated dose toxicity	Medium hazard (no threshold derived)
	Eyes	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)

Predicted No Effect Concentration (PNECs)

Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
Hydrocarbons, C10 aromatics, <1% naphthalene	Inhalation	No hazard identified	No hazard identified	32 mg/m ³ repeated dose toxicity	No hazard identified
	Dermal	No hazard identified	No hazard identified	7.5 mg/kg bw/day repeated dose toxicity	No hazard identified
	Oral	No hazard identified	-	7.5 mg/kg bw/day repeated dose toxicity	-
	Eye	No hazard identified	No hazard identified	No hazard identified	No hazard identified
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butyl phenol	Inhalation	-	-	-	-
	Dermal	-	-	-	-
	Oral	-	-	-	-
	Eye	-	-	-	-
	Eye	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)
Naphthalene	Inhalation	No hazard identified	No hazard identified	No hazard identified	No hazard identified
	Dermal	No hazard identified	No hazard identified	No hazard identified	No hazard identified
	Oral	No hazard identified	No hazard identified	No hazard identified	No hazard identified
	Eye	No hazard identified	No hazard identified	No hazard identified	No hazard identified
p-tert-butylphenol	Inhalation	Low hazard (no threshold derived)	No hazard identified	0.090 mg/m ³ repeated dose toxicity	No hazard identified
	Dermal	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)	0.026 mg/kg bw/day repeated dose toxicity	Medium hazard (no threshold derived)
	Oral	Low hazard (no threshold derived)	-	0.026 mg/kg bw/day repeated dose toxicity	-
	Eye	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)	Medium hazard (no threshold derived)

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8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to minimise exposure to vapours.

Individual protection measures, such as personal protective equipment

Eye/face protection



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

Skin protection

Hand protection



Chemical resistant gloves (EN 374). Contact glove supplier to confirm suitable glove material, thickness, and breakthrough times. If contact with forearms is likely, wear gauntlet-style gloves.

Splash protection: disposable nitrile rubber gloves.

Prolonged contact: butyl rubber gloves, protective index 6, breakthrough time > 480 minutes, layer thickness 0.7 mm.

Other

Long sleeve chemical resistant protective clothing. Plastic apron. Nitrile rubber boots.

Respiratory protection



In the case of insufficient ventilation, wear respiratory equipment. Suitable respiratory protection for lower concentrations or short-term effect: Organic vapour filter type ABEK-P3 (EN 14387).

Thermal hazards

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

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Inform environmental manager of all incidents involving this product.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Physical state	Liquid
(b) Colour	Amber
(c) Odour	Aromatic
Odour Threshold	Not available.
(d) Melting point/freezing point	Not available.
(e) Boiling point or initial boiling point and boiling range	Hydrocarbons, C10, aromatics, <1% naphthalene: 160 - 220 °C (ASTM D 86)

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(f) Flammability	Not applicable.
(g) Lower and upper explosion limit	Hydrocarbons, C10, aromatics, <1% naphthalene: 0.6 - 7.0 % v/v (calculated)
(h) Flash point	71.0°C
(i) Auto-ignition temperature	Hydrocarbons, C10, aromatics, <1% naphthalene: > 400°C
(j) Decomposition temperature	Not available.
(k) pH	Not available.
(l) Kinematic viscosity	2.45 cSt at 40°C
(m) Solubility	Insoluble in water.
(n) Partition coefficient n-octanol/water (log value)	Not available.
(o) Vapour pressure	Hydrocarbons, C10, aromatics, <1% naphthalene: 0.09 kPa at 20°C
(p) Density and/or relative density	0.9435 g/cm ³ at 15°C
(q) Relative vapour density	Not available.
(r) Particle characteristics	Not applicable

9.2 Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Acids, alkalis (lyes), reducing agents and oxidizing agents.

10.6. Hazardous decomposition products

Combustion may liberate toxic fumes: Carbon monoxide, carbon dioxide, nitrogen oxides, various hydrocarbons and formaldehyde.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) acute toxicity	
acute toxicity - oral	Not classified. Based on the available data, the classification criteria are not met.
acute toxicity - dermal	Not classified. Based on the available data, the classification criteria are not met.
acute toxicity - inhalation	Not classified. Based on the available data, the classification criteria are not met.

The following data are for the relevant product component:

Component	Acute Toxicity		
	Oral	Dermal	Inhalation
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	LD ₅₀ 630 mg/kg (rat)	LD ₅₀ 760 mg/kg (rat)	LC ₅₀ 2 mg/L (dust and mist) /4h

(b) skin corrosion/irritation	Skin Corr. 1B. Causes severe skin burns and eye damage.
(c) serious eye damage/irritation	Eye Dam. 1. Causes serious eye damage.
(d) respiratory or skin sensitisation	
respiratory sensitisation	Not classified. Based on the available data, the classification criteria are not met.
skin sensitisation	Skin Sens. 1A. May cause an allergic skin reaction.
(e) germ cell mutagenicity	Muta. 2. Suspected of causing genetic defects.
(f) carcinogenicity	Carc. 1B. May cause cancer.
(g) reproductive toxicity	Not classified. Based on the available data, the classification criteria are not met.
(h) STOT-single exposure	STOT SE 3. May cause drowsiness or dizziness
(i) STOT-repeated exposure	STOT RE 2. May cause damage to organs (gastrointestinal tract, respiratory) through prolonged or repeated exposure
(j) aspiration hazard	Asp. Tox. 1. May be fatal if swallowed and enters airways.

Information on likely routes of exposure

Inhalation	May cause drowsiness or dizziness. Corrosive to the respiratory tract.
Skin contact	Causes severe skin burns and eye damage. May cause an allergic skin reaction.
Ingestion	May be fatal if swallowed and enters airways. Ingestion can cause burns to mouth, throat and digestive tract.

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Eye contact Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

See above.

11.2 Information on other hazards

This product may release formaldehyde.

Endocrine disrupting properties

This mixture does not contain substances that cause endocrine disruption for human health.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic chronic 2. Toxic to aquatic life with long lasting effects.

Data on aquatic toxicity for major components.

Component Name	Data
Hydrocarbons, C10 aromatics, <1% naphthalene	LC ₅₀ /96 h (Oncorhynchus mykiss): 2-5 mg/L (WAF) NOELR/28 d (Freshwater fish) 0.441 mg/L (growth, estimated) EC ₅₀ /48 h (Daphnia magna): 3-10 mg/L NOELR/21 d (freshwater invertebrate): 0.771 mg/L (reproduction, estimated) EL ₅₀ /72 h (Selenastrum capricornutum): 1-3 mg/L (WAF, growth rate and biomass) NOELR/48 h (Tetrahymena pyriformis): 1.718 (estimated, growth inhibition)
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol	LC ₅₀ /96h (Oncorhynchus mykiss): 0.3 mg/L EC ₅₀ /48 h (Daphnia magna): 0.4 mg/L ErC ₅₀ /72 h (Selenastrum capricornutum): 4.9 mg/L NOEC (Selenastrum capricornutum): 2.8 mg/L
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	LC ₅₀ /96h (Danio rerio): 71 mg/L EC ₅₀ /48h (Daphnia pulex): 28 mg/L ErC ₅₀ /72h (Desmodesmus subspicatus): 2.95 mg/L
Naphthalene	LC ₅₀ /24 h (Fresh water fish): 0.9 mg/L LC ₅₀ / 96 h (Marine water fish): 2.4 mg/L NOEC 40 d (Fresh water fish): 0.12 mg/L

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NOEC/ 40 d (Marine water fish): 0.4 mg/L

LC₅₀/48 h (Daphnia magna): 2.16 mg/L

p-tert-butylphenol

LC50/96 h (rainbow trout): 5.1 mg/L

NOEC: 0.100 mg/L

EC50/48 h (Daphnia magna): 3.9 - 6.7 mg/L

EC50/21 d (Daphnia magna): 2.0 mg/L

ErC50/72 h (Selenastrum capricornutum): 14 mg/L

NOEC (Selenastrum capricornutum): 0.32 mg/L

12.2. Persistence and degradability

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

Component Name	Data
Hydrocarbons, C10 aromatics, <1% naphthalene	Inherently biodegradable.
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol	Not readily biodegradable.
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	Readily biodegradable Biodegradation: 89.8 %. Exposure time: 28 d, OECD Test Guideline 301B. Chemical Oxygen Demand: 17,887 mg/g, 1% solution
Naphthalene	Readily biodegradable
p-tert-butylphenol	Readily biodegradable

12.3. Bioaccumulative potential

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

Component Name	Partition coefficient n-octanol /water (log Kow)	Bioconcentration factor (BCF)
Hydrocarbons, C10 aromatics, <1% naphthalene	≥ 3.17 - ≤ 4.18 at 20 °C	The substance is a hydrocarbon UVCB.
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butyl phenol	4.9	2,6-di-tert-butylphenol: 434.9 2,4,6-tri-tert-butylphenol: 3282. 2,4,6-tri-tert-butylphenol has the potential to bioaccumulate
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	-0.043	No data available
Naphthalene	3.7 at 25 °C	168 (aquatic species)

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p-tert-butylphenol

3 at 23 °C

Unlikely to bioaccumulate in the food chain.

12.4. Mobility in soil

The product is insoluble in water. It will float on water. Volatile components of the product will distribute to air. Potential for adsorption to soil and sediment.

12.5. Results of PBT and vPvB assessment

This mixture contains 2,4,6- tri-tert-butylphenol that meets the PBT and vPvB and T criteria. Contains > 20 - < 40% reaction mass of 2,6-di-tertbutylphenol and 2,4,6-tri-tert-butyl phenol which is possibly Persistent, Bioaccumulative and Toxic.

12.6. Endocrine disrupting properties

This mixture contains p-tert-butylphenol that is identified as endocrine disruptor with environmental effects.

12.7. Other adverse effects

No known other significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover or recycle if possible. The assignment of a waste code should be assessed based on the waste generated. Before disposing the product, solutions and any by-products, it should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Product and packaging to be disposed of as hazardous waste. Disposal should be in accordance with local, state, or national legislation. Do not landfill.

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.

SECTION 14: Transport information

ADR/ADN/RID/IATO/ICAO/IMDG Code

14.1. UN number or ID number

3267

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14.2. UN proper shipping name

CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S (contains reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO] and reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol)

14.3. Transport hazard class(es)

8

14.4. Packing group

II

14.5. Environmental hazards

ADR/ADN/RID/IATO/ICAO	Yes
IMDG Code	Marine pollutant

14.6. Special precautions for user

Read SDS and supplier instructions on correct use of the product.

ADR Tunnel Restriction Code	(E)
ADR Transport Category	2
IMDG EmS:	F-A, S-B

14.7. Maritime transport in bulk according to IMO instruments

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

UK Regulations

This product has been classified according to Regulation (EC) No 1272/2008 (CLP) amended by GB CLP (UK SI 2019/720 as amended).

This SDS has been prepared in accordance with REACH Regulation (EC) No 1907/2006, amended by UK REACH (UK SI 2019/758 as amended).

Health and Safety at Work Act

The Control of Major Accident Hazards (COMAH) Regulations.

The Control of Substances Hazardous to Health (COSHH) Regulations

Hazardous Waste (England and Wales) Regulations 2005

UK Waste (Circular Economy) (Amendment) Regulations 2020

The Waste (England and Wales) Regulations 2011

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EU Regulations

This product has been classified according to Regulation (EC) No. 1272/2008 (CLP).

This SDS has been prepared in accordance with REACH Regulation (EC) No 1907/2006 as amended by Commission Regulation EU 2020/878.

Candidate List of Substances of Very High Concern for Authorisation:

No components listed.

Authorisations and/or restrictions on use:

Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butyl phenol EC 907-745-9: Possible restriction.

Assessment of regulatory needs report for substances containing 4-tert-butylphenol

Restriction of 4-TBP as a substance, constituent or impurity in other substances, mixtures and articles up to a certain threshold is proposed to ensure that environmental emissions of 4-TBP are minimised. Ideally the entry should address both emissions from the production stage and emissions/exposure as a result of use. The entry would cover a wide scope – potentially all substances containing 4-TBP, including those that may be placed on the market in the future. This would help address the additivity effect of many low-level emissions.

Naphthalene CAS 91-20-3: Intended to be restricted and entered in Annex XVII to REACH

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures, and articles.

Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]:

REACH Annex XVII – Restrictions: Entry 28. Restricted to professional users. This restriction does not apply to the following fuels and oil products:

- motor fuels which are covered by Directive 98/70/EC,
- mineral oil products intended for use as fuel in mobile or fixed combustion plants,
- fuels sold in closed systems (e.g. liquid gas bottles).

Community Rolling Action Plan (CoRAP)

Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butyl phenol EC 907-745-9: concluded

Naphthalene EC 202-049-5: concluded

p-tert-butylphenol EC 202-436-9: concluded

Other EU regulations

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants

No components listed.

Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer

No components listed.

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Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals

No components listed.

Regulation (EU) N° 528/2012 Biocidal Products Regulation

Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO] listed in Article 95 List. Relevant Substance listed generates the active substance formaldehyde.

Waste Framework Directive 2008/98/EC as amended.

Chemical Agents Directive (CAD) Council Directive 98/24/EC as amended.

Occupational Exposure Limits – Indicative OELVs

15.2. Chemical safety assessment

A REACH chemical safety assessment has not been carried out.

SECTION 16: Other information

i) Indication of changes

Version:	2.0
Issue date:	08/11/2024
Previous Version:	1.0
Issue date of previous version:	06/06/2024

ii) Abbreviations and acronyms

ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
bw	Body weight
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
dw	Dry weight
EC number	European Inventory of Existing Commercial Chemical Substances or European List of Notified Chemical Substances number
EC ₅₀	Effective Concentration 50 %
EL ₅₀	Effective Loading rate 50%
ErC ₅₀	Concentration of test substance which results in a 50 percent reduction in growth rate relative to the control within 72 h exposure.
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC ₅₀	Lethal Concentration 50%
LD ₅₀	Lethal Dose 50%
LL ₅₀	Lethal Loading rate 50 %

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LOEL	Lowest Observed Effect Level
NOEL	No Observed Effect Level
NOELR	No Observed Effect Loading Rate
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
SCL	Specific Concentration Limit
vPvB	Very Persistent and Very Bioaccumulative
WAF	Water accommodated Fraction
WEL	Workplace Exposure Limit

iii) Key literature references and sources for data

Supplier's safety data sheet

Regulation (EC) No. 1272/2008.

Regulation (EC) No. 1907/2006

Mandatory Classification and Labelling List (GB MCL List)

ECHA REACH dossiers

HSE EH40/2005 4th Edition, 2020

GESTIS ILV (<https://limitvalue.ifa.dguv.de/>)

Endocrine Disruptor Lists (<https://edlists.org/>)

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants.

Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer.

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals.

Regulation (EU) N° 528/2012 Biocidal Products Regulation

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

Classification according to Regulation (EC) No. 1272/2008 and GB CLP	Classification procedure
Asp. Tox. 1; H304	Calculation method
Skin Corr. 1B; H314	Calculation method
Skin Sen. 1A; H317	Calculation method
Eye Dam. 1; H318	Calculation method
STOT SE 3	Calculation method
Muta. 2; H341	Calculation method
Carc. 1B; H350	Calculation method
STOT RE 2 H373	Calculation method
Aquatic Acute 1	Summation method
Aquatic Chronic 1 H410	Summation method

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v) Relevant H-statements (number and full text)

Acute Tox. 4; H302	Acute oral toxicity, category 4. Harmful if swallowed
Asp. Tox. 1; H304	Aspiration hazard, category 1. May be fatal if swallowed and enters airways
Acute Tox. 4; H311	Acute dermal toxicity, category 3. Toxic in contact with skin.
Acute Tox. 4; H332	Acute inhalation toxicity, category 4. Harmful if inhaled
Skin Corr. 1B; H314	Skin corrosive, category 1B. Causes severe skin burns and eye damage
Skin Sen. 1A; H317	Skin sensitiser category 1. May cause an allergic skin reaction.
Eye Dam. 1; H318	Eye damage category 1. Causes serious eye damage.
STOT SE 3; H336	Specific target organ toxicity — single exposure, category 3. May cause drowsiness or dizziness
Muta. 2; H341	Mutagenic category 2. Suspected of causing genetic defects.
Carc. 1B; H350	Carcinogenic category 1B. May cause cancer.
STOT RE 2; H373 (gastrointestinal tract, respiratory)	Specific target organ toxicity - repeated exposure, category 2. May cause damage to organs (gastrointestinal tract, respiratory) through prolonged or repeated exposure.
Aquatic Chronic 1; H400	Hazardous to the aquatic environment, aquatic acute, category 1. Very toxic to aquatic life
Aquatic Chronic 1; H410	Hazardous to the aquatic environment, aquatic chronic, category 1. Very toxic to aquatic life with long lasting effects
Aquatic Chronic 2; H411	Hazardous to the aquatic environment, aquatic chronic, category 2. Toxic to aquatic life with long lasting effects
EUH066	Repeated exposure may cause skin dryness or cracking
EUH071	Corrosive to the respiratory tract.

vi) Training advice

Always read the label, safety data sheet and product information before use. Do not handle until all safety precautions have been read and understood.

Users should have received chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene. Provide adequate information, instruction, and training to operators.

vii) Further information

No additional information

End of safety data sheet.

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.