exocet

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

XO1410HO Premium Heating Oil Additive

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

1.1 Product identifier

Product name: XO1410HO Premium Heating Oil Additive (new

formulation)

Trade name(s): Premium Heating Oil Additive (XO1410HO)

Product description: Liquid fuel additive.

CAS No.:

EC No.:

Index No.:

Not applicable.

Not applicable.

Not applicable.

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 29, Atcham Business Park, Upton Magna, Shrewsbury, Shropshire, SY4 4UG

Telephone: +44 1743 761415

E-mail: info@fastexocet.co.uk

1.4 Emergency telephone number

In case of emergency, call: 0333 333 9962 (24 hours, 7 days)

According to Regulation (EC) No. 1907/2006 (REACH)

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

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

Acute Tox. 4; H302 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Dam. 1; H318 Carc. 2; H351

Aquatic Chronic 2; H411

2.1.2. Classification according to Directive 67/548/EEC & Directive 1999/45/EC

Harmful; Xn; R22 Irritant; Xi; R38 Irritant; Xi; R41 Carc. Cat. 3; R40 Irritant; Xi; R43 Harmful: Xn: R65

Dangerous for the environment; N; R51/53

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): H302: Harmful if swallowed.

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.



According to Regulation (EC) No. 1907/2006 (REACH)

H351: Suspected of causing cancer.

H411: Toxic to aquatic life with long lasting effects.

Precautionary Statement(s): P280: Wear protective gloves / protective clothing / eye

protection / face protection.

P301 + P310: IF SWALLOWED: Immediately call a

POISON CENTER or doctor/physician.

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 or

doctor/physician.

P331: Do NOT induce vomiting.

P405: Store locked up.

P501: Dispose of contents/container to: disposal should be in accordance with local, state or national legislation.

Supplemental Hazard information None. **(EU):**

2.2.2. Label according to Directive 67/548/EEC or Directive 1999/45/EC

Hazard symbol(s):





Indication(s) of danger: Harmful; Dangerous for the Environment.

Risk phrase(s): R22: Harmful if swallowed.

R38: Irritating to skin.

R41: Risk of serious damage to eyes.

R40: Limited evidence of a carcinogenic effect. R43: May cause sensitisation by skin contact. R65: May cause lung damage if swallowed.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase(s): S1/2: Keep locked up and out of the reach of children.

S13: Keep away from food, drink and animal feeding



According to Regulation (EC) No. 1907/2006 (REACH)

stuffs.

S23: Do not breathe fumes/vapour.

S24/25: Avoid contact with skin and eyes.

S26: In case of contact with eyes, rinse immediately

with plenty of water and seek medical advice.

S27: Take off immediately all contaminated clothing. S28: After contact with skin, wash immediately with

plenty of soap and water.

S29: Do not empty into drains.

S35: This material and its container must be disposed of in a safe way.

S36: Wear suitable protective clothing.

S39: Wear eye/face protection.

S51: Use only in well-ventilated areas.

S61: Avoid release to the environment. Refer to special

instructions/Safety Data Sheets.

S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

2.3 Other hazards

None known.

SECTION 3: Composition

3.2 Mixtures

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

Chemical name	% w/w	CAS No.	EC No.	Index No.	Classification
Solvent naphtha (petroleum), heavy arom. (f.p. > 60°C)	20-40	64742-94-5	265-198-5	649-424-00-3	Asp. Tox. 1; H304 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411
Trimethylbenzene	10-<25	25551-13-7	247-099-9	-	Flam Liq. 3; H226 Acute Tox 4; H302 Acute Tox 4; H312 Skin Irrit. 2; H315
2,6-Di-tert-butylphenol	10-<25	128-39-2	204-884-0	-	Eye Dam 1; H318 Aquatic Acute 1: H400 Aquatic Chronic 1; H410



According to Regulation (EC) No. 1907/2006 (REACH)

Chemical name	% w/w	CAS No.	EC No.	Index No.	Classification
Naphthalene	5-10	91-20-3	202-049-5	601-052-00-2	Acute Tox 4; H302 Carc 2; H351 Aquatic Acute 1: H400 Aquatic Chronic 1; H410
Solvent naphtha (petroleum), heavy arom. (f.p. < 60°C)	1-5	64742-94-5	265-198-5	649-424-00-3	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411
1,2,4-Trimethylbenzene	1-5	95-63-6	202-436-9	601-043-00-3	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335 Aquatic Chronic 2; H411
1,3,5-Trimethylbenzene	1-5	108-67-8	203-604-4	601-025-00-5	Flam. Liq. 3; H226 Eye Irrit. 2; H319 STOT SE 3; H335 Aquatic Chronic 2; H411
N,N'-Disalicylidene-1,2- propanediamine	1-5	94-91-7	202-374-2	-	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Sens. 1; H317 Eye Irrit. 2; H319
4-tert-Butylphenol	1-5	98-54-4	202-679-0	-	Skin Corr. 1C; H314 Skin Sens. 1; H317
Dicyclohexylamine	< 1	101-83-7	202-980-7	612-066-00-3	Acute Tox 3; H301 Acute Tox 3; H311 Skin Corr. 1B; H314 Aquatic Acute 1; H400

Classification according to Directive 67/548/EEC

Chemical name	% w/w	CAS No.	EC No.	Index No.	Classification
Solvent naphtha (petroleum), heavy arom. (f.p. > 60°C)	20-40	64742-94-5	265-198-5	649-424-00-3	Xi; R36/38 Xn; R65 N; R51/53
Trimethylbenzene	10-<25	25551-13-7	247-099-9	-	R10 Xn; R21/22 Xi; R38
2,6-Di-tert-butylphenol	10-<25	128-39-2	204-884-0	-	Xi; R41 N; R50/53
Naphthalene	5-10	91-20-3	202-049-5	601-052-00-2	Xn; R22 Carc. Cat. 3; R40 N; R50/53



According to Regulation (EC) No. 1907/2006 (REACH)

Chemical name	% w/w	CAS No.	EC No.	Index No.	Classification
Solvent naphtha (petroleum), heavy arom. (f.p. < 60°C)	1-5	64742-94-5	265-198-5	649-424-00-3	Xi; R36/38 Xn; R65 N; R51/53
1,2,4-Trimethylbenzene	1-5	95-63-6	202-436-9	601-043-00-3	R10 Xn; R20 Xi; R36/37/38 N; R51/53
1,3,5-Trimethylbenzene	1-5	108-67-8	203-604-4	601-025-00-5	C; R34 Xn; R22 N; R50/53
N,N'-Disalicylidene-1,2- propanediamine	1-5	94-91-7	202-374-2	-	R10 Xn; R22 Xi; R36/38, R43
4-tert-Butylphenol	1-5	98-54-4	202-679-0	-	C; R34 Xi; R43
Dicyclohexylamine	< 1	101-83-7	202-980-7	612-066-00-3	C; R34 T; R24/25 N; R50

See Section 16 for full description of R phrases and H statements.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

INHALATION:Obtain immediate medical attention. Remove patient form exposure, keep warm and at rest.

SKIN CONTACT: Remove contaminated clothing immediately. Rinse

affected area with copious amounts of water. Then wash area with soap and water for at least 30 minutes. If symptoms persist, obtain medical attention. Discard of or wash thoroughly contaminated clothing.

EYE CONTACT: Obtain immediate medical attention. 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. Provided the

patient is conscious wash mouth out with water and provide patient with 200-300 ml of water to drink. Do

not induce vomiting.



According to Regulation (EC) No. 1907/2006 (REACH)

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

Skin contact causes redness and pain. Skin contact may cause rash. 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.

Suspected of causing cancer.

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.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Combustible liquid and vapour. 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 to enter drains, sewers or watercourses.

Flash point: 65°C (closed cup).



According to Regulation (EC) No. 1907/2006 (REACH)

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.

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 clearing 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 absorbent material into a container for disposal. The containers used should be plastic-lined sealable drums. 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

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide adequate ventilation, including local extraction to ensure occupational exposure



According to Regulation (EC) No. 1907/2006 (REACH)

limits are not exceeded. Avoid breathing fumes/vapour. Avoid contact with skin and eyes. Wear suitable personal protective equipment (See Section 8).

Do not eat, drink or smoke when using this product. Wash exposed skin after use. Contaminated work clothing should not be allowed out of the workplace. Contaminated clothing should be thoroughly cleaned or disposed of as hazardous waste.

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. Store in a cool, well ventilated place. Maximum handling temperature: 50°C. Empty containers retain product residue and can be hazardous.

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

Source: EH40/2005, 2nd Ed., 2011.

Substance	CAS No.	LTEL (8 hr TWA)		STEL (15 min)		Comments
Substance	CAS NO.	ppm	mg/m³	ppm	mg/m³	Comments
Trimethylbenzenes, all isomers or mixtures	25551-13-7	25	125	-	-	-

8.2 Exposure controls

8.2.1 Appropriate engineering controls

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

8.2.2 Personal protection

Eye protection: Goggles giving complete protection to eyes. (EN 166)

Skin protection:

Hand protection: Chemical resistant gloves. (EN 374).



According to Regulation (EC) No. 1907/2006 (REACH)

Other: Long sleeve protective clothing. Plastic apron. Rubber

boots.

Respiratory protection: In the case of insufficient ventilation, wear suitable

respiratory equipment. (BS EN 14387:2004+A1)

Thermal hazards: Wear suitable temperature resistant gloves and

protective clothing if the product is heated.

8.2.3 Environmental exposure controls

Inform environmental manager of all incidents involving this product.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: Colourless liquid.

Odour: Aromatic.

Odour threshold:

pH:

Not available.

Not applicable.

Melting/freezing point::

185 – 215°C

Initial boiling point and boiling range:

Not available.

Flash point: 65°C (Closed cup)

Evaporation rate:

Flammability (solid; gas):

Upper/lower flammability or explosive limits:

Vapour pressure:

Vapour density:

Not available.

Not available.

Relative density: $0.895 (15^{\circ}C) (Water = 1)$

Solubility(ies): Immiscible in water.

Miscible in aromatic solvents.

Partition coefficient: n-octanol/water:

Auto-ignition temperature:

Decomposition temperature:

Viscosity:

Not available.

Not available.

1.55 cSt (20°C)

Explosive properties: Not explosive. Vapour may form explosive mixture with

air.



According to Regulation (EC) No. 1907/2006 (REACH)

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.

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 and

direct sunlight. Avoid 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 Harmful if swallowed.

No data available on the mixture.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye damage.

Skin sensitisation May cause an allergic skin reaction.

Respiratory sensitisationNo evidence of respiratory sensitisation.

Germ cell mutagenicityNo evidence of mutagenicity.

Carcinogenicity Suspected of causing cancer.

Reproductive toxicity No evidence of reproductive toxicity.



According to Regulation (EC) No. 1907/2006 (REACH)

Specific Target Organ Toxicity – single

exposure

Inhalation of high concentrations of vapour may cause

irritation to the respiratory tract.

Specific Target Organ Toxicity -

repeated exposure

Based on the available data, the classification criteria

are not met.

Aspiration hazard May be fatal if swallowed and enters airways. Risk of

aspiration into lungs resulting in chemical pneumonia.

Information on likely routes of exposure

Inhalation Inhalation of high concentrations of vapour may cause

irritation to the respiratory tract.

Skin contact Causes skin irritation. May cause an allergic skin

reaction.

Eye contact Causes serious eye damage.

Ingestion Harmful if swallowed. Ingestion may cause irritation to

> mouth, throat and digestive tract. May be fatal if swallowed and enters airways. Risk of aspiration into

lungs resulting in chemical pneumonia.

Symptoms related to the physical, chemical

and toxicological characteristics

Skin contact causes redness and pain. Skin contact may cause rash. 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.

Mixture versus substance information No data available.

Other information None.

SECTION 12: Ecological Information

12.1 Toxic to aquatic life with long lasting effects. **Toxicity**

> LC₅₀ (Fish): 1 – 10 mg/l, 96h EC₅₀ (Daphnia): 1 – 10 mg/l, 48h

12.2 Persistence and degradability No data available.

12.3 **Bioaccumulative potential** No data available.

Version: 2.0 XO1410HO Premium Heating Oil Additive Date: 28/09/2012

Page 12 of 16



According to Regulation (EC) No. 1907/2006 (REACH)

12.4 Mobility in soil No data available.

12.5 Results of PBT and vPvB The product does not contain substances assessed to

be PBT or vPvB.

12.6 Other adverse effects None known.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

assessment

To be disposed of as hazardous waste. Disposal should be 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

Δ	ח	R
_	$\boldsymbol{\smile}$	

14.1 UN Number 3082

14.2 UN Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

LIQUID, N.O.S. (contains 2,6-di-tert-butylphenol)

14.3 Transport hazard class(es) 9

14.4 Packing group

14.5 Environmental hazards Yes

14.6 Special precautions for the user 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)

14.3 Transport hazard class(es)

14.4 Packing group

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

Version: 2.0 XO1410HO Premium Heating Oil Additive Date: 28/09/2012



According to Regulation (EC) No. 1907/2006 (REACH)

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

IATA/ICAO

1/1	UN Number	3082
14.1	UN NUMBER	3002

Environmentally hazardous substance, liquid, n.o.s. 14.2 **UN Proper shipping name**

(contains 2,6-di-tert-butylphenol)

14.3 **Transport hazard class(es)**

14.4 Packing group Ш

14.5 **Environmental hazards** Yes

14.6 Special precautions for the user Read SDS and supplier instructions on correct use of

the product.

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)

14.3 Transport hazard class(es)

14.4 Packing group Ш

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

of MARPOL 73/78 and the IBC code

Transport in bulk according to Annex II 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), Directive

67/548/EEC & Directive 1999/45/EC.

15.2 **Chemical Safety Assessment** Not applicable.



According to Regulation (EC) No. 1907/2006 (REACH)

SECTION 16: Other Information

Full text of relevant R-phrases and/or H-statements:

Hazard Statement(s): H226: Flammable liquid and vapour.

> H301: Toxic if swallowed H302: Harmful if swallowed.

H304: May be fatal if swallowed and enters airways.

H311: Toxic in contact with skin. 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. H351: Suspected of causing cancer. 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.

Supplemental Hazard information None. (EU):

Risk phrase(s): R10: Flammable.

R20: Harmful by inhalation.

R21/22: Harmful in contact with skin and if swallowed.

R22: Harmful if swallowed.

R24/25: Toxic in contact with skin and if swallowed.

R34: Corrosive.

R36/38: Irritating to eyes and skin.

R36/37/38: Irritating to eyes, respiratory system and

skin.

R40: Limited evidence of a carcinogenic effect.

R41: Risk of serious damage to eyes.

R43: May cause sensitisation by skin contact.

R65: Harmful: may cause lung damage if swallowed. R50/53: Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment. R51/53: Toxic to aquatic organisms, may cause long-

term adverse effects in the aquatic environment.



According to Regulation (EC) No. 1907/2006 (REACH)

Abbreviations:

CAS: Chemical Abstracts Service;

EINECS: European Inventory of Existing Commercial Chemical Substances

PBT: Persistent, Bioaccumulative and Toxic. vPvB: Very Persistent and Very Bioaccumulative.

References:

Supplier's Safety Data Sheets for ingredients
Product formulation
Approved Classification and Labelling Guide (Sixth edition)
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009
Regulation (EC) No. 1272/2008 of the European Parliament and of the council.
EH40/2005, 2nd Ed., 2011.

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.

Version history:

Version: 2.0

Issue date: 28/09/2012

Previous Version: 1.0

Issue date of previous version: 08/05/2012

Sections changed from previous version: 1-16