Safety Data Sheet

ACCORDING TO COMISSION REGULATION (EU) 2020/878 and UK REACH

Date 02/07/2024. Version 3

XO1245GO

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

1.1 Product identifier

Product name	XO1245GO
Trade name	Gas Oil Supreme Plus
Product description	Liquid fuel additive
Contains	2-ethylhexyl nitrate; hydrocarbons, C10, aromatics, >1% naphthalene (Solvent naphta (petroleum), heavy arom.); reaction products of paraformal-dehyde and 2-hydroxypropylamine (ratio 3:2); [MBO].

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

Identified use(s)	Liquid fuel additive. Additive for use by professional users only.
Uses advised against	Follow supplier's recommendations on correct use of the product. Additive not for consumer use.

1.3 Details of the supplier of the safety data sheet

Distributor/Supplier	Rix Petroleum Limited
Address	2 Humber Quays, Wellington Street West, Hull
Postcode	HU1 2BN
Telephone	01482 224422
E-mail address of competent person responsible	sales@rix.co.uk

1.4 Emergency telephone number

In case of emergency, call	+44 (0) 333 333 9962 (UK number, 24 hours, 7 days)

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.
Acute Tox. 4*	H302	Harmful if swallowed
Acute Tox. 4*	H312	Harmful in contact with skin.
Acute Tox. 4*	H332	Harmful if inhaled
Skin Corr. 1B	H314	Causes severe skin burns and eye damage.
Skin Sens. 1	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	H373	May cause damage to organs through prolonged or repeated exposure (gastrointestinal tract, respiratory).
Aquatic Acute 1	H400	Very toxic to aquatic life
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects.

(*) Classified as Acute Tox. 4 H302+H312+H332 based on human data for 2-ethylhexyl nitrate, effects include severe headaches, nausea and giddiness.

2.2 Label elements

Hazard pictogram(s)



Signal Word	Danger	
Hazard Statement(s)	H304	May be fatal if swallowed and enters airways.
	H302	Harmful if swallowed.
	H312	Harmful in contact with skin.
	H332	Harmful if inhaled.
	H314	Causes severe skin burns and eye damage.
	H317	May cause an allergic skin reaction.
	H336	May cause drowsiness or dizziness.
	H341	Suspected of causing genetic defects.
	H350	May cause cancer.

	H373	May cause damage to organs through prolonged or repeated exposure (gastrointestinal tract, respiratory).
	H410	Very toxic to aquatic life with long lasting effects.
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.
	P270	Do not eat, drink or smoke when using this product.
	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.
	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P308 + P313	IF exposed or concerned: Get medical advice/attention.
	P310	Immediately call a POISON CENTER/doctor.
	P331	Do NOT induce vomiting.
	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)	EUH044:	Risk of explosion if heated under confinement.
	EUH071	Corrosive to the respiratory tract.
Hazardous components which must be on the label	2-ethylhexyl nitrate; hydrocarbons, C10, aromatics, >1% naphthalene (Solvent naphta (petroleum), heavy arom.); reaction products of paraformal-dehyde and 2-hydroxypropylamine (ratio 3:2); [MBO].	
Special labelling of certain mixtures	Restricted to professional users.	

2.3 Other hazards

Spillages make surfaces slippery.
Combustible liquid.
This mixture does not contain substances that are PBT or vPvB. This mixture does not cause endocrine disruption.

Contains 2-ethylhexyl nitrate which is thermally unstable. Containers may rupture on heating. For further information see Sections 5, 6 and 7 of this SDS.

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*
2-ethylhexyl nitrate	27247-96-7 248-363-6 -	01-2119539586-27-0024	≤ 60	Acute Tox. 4 H302 Acute Tox. 4 H312 Acute Tox. 4 H332 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	EUH044 EUH066

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 (Solvent naphta (petroleum), heavy arom.)	64742-94-5 (**) 919-284-0 -	01-211463588-24	< 20	Asp. Tox. 1 H304 STOT SE 3 H336 Carc. 2 H351 Aquatic Chronic 2 H411	EUH066 WEL
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	- - 612-290-00-1	-	≤ 12	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
2-Ethylhexan-1-ol	104-76-7 203-234-3 -	01-2119487289-20	< 5	Acute Tox. 4 H332 Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE3 H335	
Naphthalene	91-20-3 202-249-5 601-052-00-2	-	< 3	Acute Tox. 4 H302 Carc. 2 H351 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	WEL

* 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 CAS 64742-94-5 outside the EU.

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	Harmful if inhaled. May cause drowsiness or dizziness. 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. Harmful in contact with skin. May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking. 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. 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. Harmful if swallowed, in contact with skin and if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking. Corrosive to the respiratory tract. May cause drowsiness or dizziness.

Symptoms of vasodilation may be present following organic nitrate over exposure.

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

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.

NOTE TO DOCTORS. Symptoms of vasodilation may be present following organic nitrate over exposure. Treat as organic nitrate poisoning.

SECTION 5: Firefighting measures

5.1 Extinguishing Media

Suitable extinguishing media:	Foam, carbon dioxide (CO_2) 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. Contains 2-ethylhexyl nitrate which is thermally unstable. Risk of explosion if heated under confinement. Cool containers exposed to flames with plenty of water until well after the fire is out.

Vapour may form explosive mixture with air. Vapour is heavier than air and may accumulate in confined spaces.

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. Contains 2-ethylhexyl nitrate which is thermally unstable. Containers may rupture on heating. 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; do not allow product or run-off to enter drains, sewers or watercourses.

Flash point: 72°C (closed cup).

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. The vapour is heavier than air; it will concentrate in low lying areas, beware of pits and confined spaces.
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. The vapour is heavier than air; it will concentrate in low lying areas, beware of pits and confined spaces.

6.2 Environmental precautions

Toxic to aquatic life. 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 absorbent 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. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes or clothing. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection (see Section 8).

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against electrostatic discharges. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Keep away from heat. Do not heat above 100°C.

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.

Keep away from oxidising agents. Avoid contamination with acids, alkalis, reducing and oxidising agents, amines and phosphorus.

Maximum recommended storage temperature: 40 °C.

7.3 Specific end uses(s)

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

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/m³	ppm	mg/m³	
Hydrocarbons C10, aromatics, > 1% naphthalene (Solvent naphta (petroleum), heavy arom.)	EH 40	-	500	-	-	Total hydrocarbon vapour (1)
2-Ethylhexan-1-ol	GESTIS ILV	1	5.4	-	-	Ireland
	EH40	1	5.4	-	-	UK
Naphthalene	GESTIS ILV	10	50	-	-	Ireland
Formaldehyde	GESTIS ILV	0.3	0.37	0.6	0.74	European Union (2)
	EH40	2	2.5	2	2.5	UK (Carc)

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)
Carc	Capable of causing cancer and/or heritable genetic damage
Recommended	Naphthalene CoRAP: Substance Evaluation Conclusion and Report

Derived No-Effect Level (DNELs) Workers

Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
2-ethylhexyl nitrate	Inhalation	-	-	0.350 mg/m3 repeated dose toxicity	-
	Dermal	-	-	1 mg/kg bw/day repeated dose toxicity	0.044 mg/cm^3 repeated dose toxicity
	Eyes	Low hazard (no threshold derived)	Low hazard (no threshold derived)	Low hazard (no threshold derived)	Low hazard (no threshold derived)
Hydrocarbons, C10 aromatics, >1% naphthalene (Solvent naphta (petroleum), heavy arom.)	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
2-Ethylhexan-1-ol	Inhalation	Low hazard (repeated dose toxicity)	53.2 mg/m^3 irritation (respiratory tract)	12.8 mg/m^3 repeated dose toxicity	53.2 mg/m^3 irritation (respiratory tract)
	Dermal	No hazard identified	Medium hazard (no threshold derived)	23 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)
Naphthalene	Inhalation	Low hazard (no threshold derived)	No hazard identified	25 mg/m³ repeated dose toxicity	25 mg/m³ 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

Derived No-Effect Level (DNELs) General population

Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
2-ethylhexyl nitrate	Inhalation	-	-	0.087 mg/m3 repeated dose toxicity	-
	Dermal	-	-	0.520 mg/kg bw/day repeated dose toxicity	0.022 mg/cm^3 repeated dose toxicity
	Oral	-	-	0.025 mg/kg bw/day repeated dose toxicity	-
	Eye	Low Hazard (no threshold derived)	Low Hazard (no threshold derived)	Low Hazard (no threshold derived)	Low Hazard (no threshold derived)
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
2-Ethylhexan-1-ol	Inhalation	Low hazard (no threshold derived)	26.6 mg/m³ irritation (respiratory tract)	2.3 mg/m³ repeated dose toxicity	26.6 mg/m³ irritation (respiratory tract)
	Dermal	No hazard identified	Medium hazard (no threshold derived)	11.4 mg/kg bw/day repeated dose toxicity	Medium hazard (no threshold derived)

Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
	Oral	No hazard identified	-	1.1 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)
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

Predicted No Effect Concentration (PNECs)

Substance	2-ethylhexyl nitrate	Hydrocarbons, C10 aromatics, >1% naphthalene (Solvent naphta (petroleum), heavy arom.)	2-Ethylhexan-1-ol	Naphthalene
Aqua, fresh water	0.00083 mg/L	Testing technically not feasible	0.017 mg/L	0.0024 mg/L
Intermittent releases, fresh water	0,0083 mg/L	Testing technically not feasible	0.17 mg/L	0.020 mg/L
Aqua, marine water	0.000083 mg/L	Testing technically not feasible	0.0017 mg/L	0.0024 mg/L
Intermittent releases, marine water	No data available	Testing technically not feasible	No data available	No data available
Sewage treatment plants (STP)	10 mg/L	Testing technically not feasible	10 mg/L	2.9 mg/L
Sediment, fresh water	0.470 mg/Kg sediment dw	Testing technically not feasible	0.284 mg/Kg sediment dw	0.0672 mg/Kg sediment dw
Sediment, marine water	0.0474 mg/Kg sediment dw	Testing technically not feasible	0.0284 mg/Kg sediment dw	0.0672 mg/Kg sediment dw
Air	No hazard identified	No hazard identified	No hazard identified	No hazard identified
Soil	0.0935 mg/Kg soil dw	Testing technically not feasible	0.047 mg/Kg soil dw	0.0533 mg/kg soil dw
Hazard for Predators	No potential for bioaccumulation	No potential for bioaccumulation	55 mg/kg food	No potential for bioaccumulation

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.
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	Pungent, aromatic
Odour Threshold	Not available.
(d) Melting point/freezing point	Not available.
(e) Boiling point or initial boiling point and boiling range	Decomposes > 100 °C (2-ethylhexyl nitrate)
(f) Flammability	Combustible liquid.
(g) Lower and upper explosion limit	Not available.
(h) Flash point	72 °C
(i) Auto-ignition temperature	130 °C (2-ethylhexyl nitrate vapour)
(j) Decomposition temperature	Decomposes violently above 100°C. (2-ethylhexyl nitrate)
(k) pH	Not available.
(l) Kinematic viscosity	2.46 cSt at 40 °C
(m) Solubility	Insoluble in water.

(n) Partition coefficient n-octanol/water (log value)	Not available.
(o) Vapour pressure	Log Kow = 5.24 at 40°C (2-ethylhexyl nitrate
(p) Density and/or relative density	0.9623 g/cm^3 at 15°C
(q) Relative vapour density	> 1 (air = 1)
(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. Risk of explosion if heated under confinement. Decomposes when heated above 100 °C.

10.3. Possibility of hazardous reactions

No hazardous reactions expected during normal use. Hazardous reactions may occur if heated under confinement.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not heat above 100°C.

10.5. Incompatible materials

Acids, alkalis, reducing and oxidising agents, amines and phosphorus.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

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

(a) acute toxicity

acute toxicity - oral	Acute Tox.4. Harmful if swallowed*
acute toxicity - dermal	Acute Tox.4. Harmful in contact with skin*

acute toxicity - inhalation — Acute Tox.4. Harmful if inhaled*

(*) Classified as Acute Tox. 4 H302+H312+H332 based on human data for 2-ethylhexyl nitrate, effects include severe headaches, nausea and giddiness.

The following data are for the relevant product component:

Component	Acute Toxicity		
	Oral	Dermal	Inhalation
2-ethylhexyl nitrate	LD_{50} > 9600 mg/Kg (rat)	LD_{50} > 4800 mg/Kg	LC_{50} > 5.65 mg/m^3
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	LD_{50} 632 mg/kg (rat)	LD_{50} 760 mg/kg (rat)	LC_{50} 2 mg/L (dust and mist)
2-Ethylhexan-1-ol	2047 mg/Kg (rat)	>3000 mg/Kg	No mortality at 0.89 mg/L (4h)
Naphthalene	LD_{50} 533 mg/kg (mouse)	LD_{50} > 2000 mg/Kg	LC_{50} > 0.4 mg/L

(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. 1. 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 through prolonged or repeated exposure (gastrointestinal tract, respiratory).

(j) aspiration hazard — Asp. Tox. 1. May be fatal if swallowed and enters airways.

Information on likely routes of exposure

Inhalation	Corrosive to the respiratory tract. Harmful if inhaled. Inhalation of vapour may cause severe drowsiness and dizziness.
Skin contact	Causes severe skin burns and eye damage. May cause an allergic skin reaction. Harmful in contact with skin. Repeated exposure may cause skin dryness or cracking.
Ingestion	May be fatal if swallowed and enters airways. Harmful if swallowed.
Eye contact	Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

See above.

11.2 Information on other hazards

Endocrine disrupting properties

This mixture does not cause endocrine disruption.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic Acute 1. Very toxic to aquatic life

Aquatic chronic 1. Very toxic to aquatic life with long lasting effects.

Data on aquatic toxicity for major components.

Component Name	Data
2-ethylhexyl nitrate	LC_{50}/96 h (Danio rerio): 2 mg/L NOEC/96 h (Danio rerio): 1.52 mg/L EC_{50}/48 h (Daphnia magna): > 0.83 mg/L EC_{50}/72 h (Pseudokirchneriella subcapitata): 2.53 mg/L NOEC/72 h (Pseudokirchneriella subcapitata): 2.22 mg/L (growth rate)
Hydrocarbons, C10 aromatics, >1% naphthalene (Solvent naphta (petroleum), heavy arom.)	LC_{50}/96 h (Oncorhynchus mykiss): 2-5 mg/L NOELR/28 d (Freshwater fish) 0.487 mg/L (growth, estimated) EC_{50}/48 h (Daphnia magna): 3-10 mg/L NOELR/21 d (Daphnia magna): 0.40 mg/L (reproduction, estimated) EL_{50}/72 h (Pseudokirchneriella subcapitata): 3.8 – 7.9 mg/L (WAF, growth rate and biomass) NOELR/72 h (Pseudokirchneriella subcapitata): 0.22 mg/L (growth rate and biomass)
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 EC_{50}/72h (Desmodesmus subspicatus): 2.95 mg/L
2-Ethylhexan-1-ol	LC_{50}/96h (Leuciscus idus melanotus): 17.1 mg/L EC_{50}/48 h (Daphnia magna): 39 mg/L EC_{50}/72 h (Scenedesmus subspicatus): 16.6 mg/L NOEC (Scenedesmus subspicatus): 5.3 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 NOEC/ 40 d (Marine water fish): 0.4 mg/L LC_{50}/48 h (Daphnia magna): 2.16 mg/L NOEC (Fresh water invertebrates): 0.6 mg/L NOEC (Marine water invertebrates): 0.9 mg/L EC_{50} (Freshwater algae): 2.96 mg/L EC_{50} (Marine water algae): 0.410 mg/L EC_{50} (Microorganisms): 29 mg/L NOEC (Microorganisms): 10 mg/L

12.2. Persistence and degradability

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

Component Name	Data
2-ethylhexyl nitrate	Not biodegradable, 0% degradation after 28 days.
Hydrocarbons, C10 aromatics, >1% naphthalene (Solvent naphta (petroleum), heavy arom.)	Readily biodegradable
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	Readily biodegradable
2-Ethylhexan-1-ol	Readily biodegradable
Naphthalene	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)
2-ethylhexyl nitrate	5.24 at 40°C	1248 L/Kg (aquatic species)
Hydrocarbons, C10 aromatics, >1% naphthalene (Solvent naphta (petroleum), heavy arom.)	≥ 3.17 - ≤ 4.73 at 20 °C	The substance is a hydrocarbon UVCB.
Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	-0,043	No data available
2-Ethylhexan-1-ol	2.9 at 25 °C	38.06 L/Kg
Naphthalene	3.7 at 25 °C	168 (aquatic species)

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.

12.5. Results of PBT and vPvB assessment

The product does not contain substances assessed to be PBT or vPvB.

12.6. Endocrine disrupting properties

This mixture does not cause endocrine disruption.

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

1760

14.2. UN proper shipping name

CORROSIVE LIQUID, N.O.S (contains 2-ethylhexyl nitrate and reaction products of paraformal-dehyde and 2-hydroxypropylamine (ratio 3:2); [MBO])

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-F

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

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:

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]

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)

Naphthalene CAS 91-20-3

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.

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:	3.0
Issue date:	08/07/2024
Previous Version:	2.0
Issue date of previous version:	04/12/2019

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%
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 %
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
Acute Tox. 4; H302	Expert judgement
Asp. Tox. 1; H304	Calculation method
Acute Tox. 4; H312	Expert judgement
Acute Tox. 4; H332	Expert judgement
Skin Corr. 1B; H314	Calculation method
Skin Sen. 1; H317	Calculation method
Eye Dam. 1; H318	Calculation method
STOT SE 3; H336	Expert judgement
Muta. 2; H341	Calculation method
Carc. 1B; H350	Calculation method
STOT RE 2 H373	Calculation method
Aquatic Acute 1; H400	Summation method
Aquatic Chronic 1 H410	Summation method

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 H312	Acute Dermal toxicity, category 4. Harmful 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 Irrit. 2 H315	Skin corrosion/irritation, category 2. Causes skin irritation
Skin Sen. 1; 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 H335	Specific target organ toxicity — single exposure, category 3. May cause respiratory irritation.
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.
Carc. 2 H351	Carcinogenicity, category 2. Suspected of causing cancer
STOT RE 2 H373	Specific target organ toxicity - repeated exposure, category 2. May cause damage to organs through prolonged or repeated exposure.
Aquatic Acute 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 2. 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
EUH044	Risk of explosion if heated under confinement.
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.