SAFETY DATA SHEET
FURNACE FLAME

According to COMMISSION REGULATION (EU) 2020/878 and UK REACH

Issued: 13/03/2026
Ref: WFS/ Watson Fuels/ Furnace Flame 03
Version: 03

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Product name	Furnace Flame
Other names	Furnace Flame
Contains	Fuels, diesel Kerosine, petroleum

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Relevant identified uses	Fuel for use in boilers, gas turbines and other combustion equipment. Follow supplier's recommendations on correct use of the product.
Uses advised against	Not to be used as a fuel for any engine, motor or other machinery.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Manufacturer/Supplier	Watson fuels
Address	Callow Park, Callow Hill Brinkworth Chippenham Wiltshire SN15 5FD United Kingdom
Telephone number	+44 1666 510 345
E-mail address of competent person responsible for the SDS	hse@watsonfuels.co.uk

1.4 EMERGENCY TELEPHONE NUMBER

+44 (0) 333 333 9957 (24/7, English)

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

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

Flam. Liq. 3 - H226

Asp. Tox. 1 - H304

Skin Irrit. 2 - H315

Acute Tox. 4 - H332

STOT SE 3 – H336

Carc. 2 - H351

STOT RE 2 (thymus, liver and bone marrow) - H373

Aquatic Chronic 2 - H411

2.2 LABEL ELEMENTS

Labelling according to Regulation (EC) No 1272/2008 [CLP] and GB CLP

Hazard pictograms

Signal word Danger

Hazard Statements

H226 - Flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H351 - Suspected of causing cancer
H373 - May cause damage to organs (thymus, liver and bone marrow) through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof equipment.
P242 - Use only non-sparking tools.
P243 - Take action to prevent static discharges.
P260 - Do not breathe fume/ vapours.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
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

P314 - Get medical advice/attention if you feel unwell.
P370 + P378 - In case of fire: Use foam, water spray, dry chemical, carbon dioxide or other inert gases (as permitted by regulations) to extinguish.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 - Do NOT induce vomiting.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents and container in accordance with Hazardous Waste (England and Wales) Regulations 2005 and EU Waste Framework Directive 2008/98/EC.

Supplemental information on the label
Supplementary Hazard Information (EU) No supplementary hazard information
Hazardous components which must be on the label Fuels, diesel
Kerosine, petroleum

2.3 OTHER HAZARDS

The product does not meet the PBT or vPvB classification criteria of Annex XIII of the REACH Regulation.

Flammable liquid capable of accumulating static can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid, and vapour may cause flash fire or explosion. Spillages make surfaces slippery.

May ignite on surfaces at temperatures above auto- ignition temperature.

Vapours are heavier than air and can accumulate in confined spaces.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 MIXTURES

Mixture manufactured from fuels, diesel. May contain FAME (fatty acid methyl esthers) at < 7% and other additives at <0.1% each. None of the additives impact any additional hazard to the finished product. Total sulphur: < 0.1 wt%.

Chemical name	% w/w	CAS number/ EC number/ Index number	REACH registration number	Classification according to Regulation (EC) No 1272/2008 [CLP]	Additional information*
Fuels, diesel	< 100	68334-30-5/ 269-822-7/ 649-224-00-6	01-2119484664-27-XXXX	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Acute Tox. 4 (inh.); H332 Carc. 2; H351 STOT RE 2; H373 (thymus, liver and bone marrow) Aquatic Chronic 2; H411	WEL
Kerosine (petroleum)	< 100	8008-20-6/ 232-366-4/ 649-404-00-4	01-2119485517-27	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	WEL

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

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

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

General notes	No action shall be taken involving any personal risk or where suitable training has not been provided. IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.
Following inhalation	Harmful if inhaled. May cause drowsiness or dizziness. Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
Following skin (or hair) contact	Causes skin irritation. Take off contaminated clothing and wash it before reuse. Rinse skin with water [or shower]. If skin irritation occurs: Get medical advice/attention. Drench contaminated clothing with water before removing. This is necessary to avoid the risk of sparks from static electricity that could ignite contaminated clothing.
Following eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. If symptoms occur, get medical attention.
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	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it or wear gloves.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Inhalation: Harmful if inhaled. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in drowsiness, dizziness, light headedness, headache, disorientation, fatigue, nausea and loss of coordination. Vapour, mist or fume may irritate the nose, mouth and respiratory tract. The onset of respiratory symptoms may be delayed for several hours after exposure.

Ingestion: May be fatal if swallowed and enters airways. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Ingestion may also cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

Skin contact: Causes skin irritation. Prolonged or repeated contact can defeat the skin and lead to irritation and/or dermatitis.

Eye contact: Vapour, mist or fume may cause eye irritation. Exposure to vapour, mist or fume may cause stinging, redness and watering of the eyes.

This product may cause cancer and may cause damage to organs (thymus, liver and bone marrow) through prolonged or repeated exposure.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

In case of accident or if you feel unwell, seek medical advice immediately. 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.

High pressure injection injuries require prompt medical attention.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable extinguishing media

Small fires: Earth or sand, carbon dioxide, foam, and dry chemical powder.

Large fires: Foam, water spray, dry chemical, carbon dioxide or other inert gases (as permitted by regulations). Note: the use of water spray is restricted to specially trained personnel.

Unsuitable extinguishing media

Do not use direct water jets on the burning product, they can cause splashes and spread the fire. Avoid the simultaneous use of foam and water on the same surface as water destroys foam.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Vapours can form explosive mixtures with air. Vapours are heavier than air and can spread along the ground or float on water surfaces to remote ignition sources. They may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Liquid will float and may reignite on surface of water.

Hazardous combustion products

May include a complex mixture of airborne solid and liquid particulates and gases (smoke), carbon monoxide, oxides of sulphur, hydrogen sulphide and unidentified organic and inorganic compound.

5.3 ADVICE FOR FIREFIGHTERS

No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Firefighting measures

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Additional advice

Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If the fire cannot be extinguished, the only course of action is to evacuate immediately.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

For non-emergency personnel

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Take precautionary measures against static discharge. Use only non-sparkling tools. Use explosion-proof electrical, ventilating and lighting equipment. Immediately contact emergency personnel. No action shall be taken involving any personal risk or without suitable training.

Evacuate surrounding areas. Do not touch or walk through spilt material. Floors may be slippery; use care to avoid falling. Do not breathe vapour or fumes. Provide adequate ventilation. Keep upwind. Avoid contact with skin and eyes. Wear personal protective equipment, including safety glasses with side shields or goggles, neoprene, nitrile or rubber protective gloves and flame-retardant anti-static coverall. In confined spaces use an approved air-supplied respirator, or self-contained breathing apparatus. See section 8 for more information.

For emergency responders

If safety conditions permit, stop, or contain the leak at the source. Remain upwind. In case of large spills, warn residents of areas downwind. Remove uninvolved personnel from the spill area.

Notify emergency teams. Except in the case of small spills, the feasibility of intervention should always be assessed and

approved, if possible, by qualified and competent emergency management personnel.

Eliminate all sources of ignition if safety conditions permit (e.g., electricity, sparks, fires, torches). If required, report the event to the appropriate authorities in accordance with applicable legislation. Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work.

Small spillages: normal antistatic working clothes are usually adequate.

Large spillages: full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: gloves made of PVA are not water-resistant and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

In confined spaces use an approved air-supplied respirator. A half or full-face respirator with filter(s) for organic vapours or, preferably, a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA should be used.

6.2 ENVIRONMENTAL PRECAUTIONS

This product is toxic to aquatic life with long lasting effects. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents. If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means.

The use of dispersants should be advised by an expert, and, if required, approved by local authorities. Collect recovered product and other contaminated materials in suitable tanks or containers for recycle, recovery or safe disposal.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Small Spill: Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres.

Large Spill: Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Dike spill area and do not allow product to reach sewage system and surface or ground water. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilt product. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres.

Waste containers used should be plastic-lined sealable drums. Containers should be sealed before being disposed of via an authorised waste disposal contractor.

6.4 REFERENCE TO OTHER SECTIONS

For personal protective equipment, see Section 8. For disposal, see Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof equipment. Take action to prevent static discharges.

Do not breath fume and vapours. Use only outdoors or in a well-ventilated area. Open container slowly. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.

Keep in the original container or an approved alternative made from a compatible material.

Explosive air/vapour mixtures may form at ambient temperature. If product comes into contact with hot surfaces, or leaks occur from pressurised fuel pipes, the vapour or mists generated will create a flammability or explosion hazard. Product contaminated rags, paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use.

Ensure that adequate housekeeping measures are taken. Contaminated material must not accumulate in the workplace and must never be stored in pockets. Keep away from food and drink. Do not eat, drink, or smoke when using the product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in accordance with local regulations. Store in a segregated and approved area. Store locked up in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep away from heat and direct sunlight. Eliminate all ignition sources.

Separate from oxidising materials. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Drums and small containers should be stored in well-ventilated areas, flameproof cabinets or stores. Keep in a bunded area with a sealed floor to provide containment against spillage. Seek specialist advice for the design, construction and operation of bulk storage facilities.

Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, ullaging and sampling from storage tanks. Do not enter storage tanks. If entry to vessels is necessary, follow permit to work procedures. Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work.

When the product is pumped (e.g. during filling, discharge or ullaging) and when sampling, there is a risk of static discharge. Ensure equipment used is properly earthed or bonded to the tank structure. Electrical equipment should not be used unless it is intrinsically safe (i.e. will not produce sparks).

7.3 SPECIFIC END USE(S)

Fuel for use in boilers, gas turbines and other combustion equipment. Follow supplier's recommendations on correct use of the product. Not to be used as a fuel for any engine, motor or other machinery.

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	
Fuels, diesel	Suppliers' recommendation	-	100	-	-	Skin
Kerosine (petroleum)	GESTIS ILV	50	350	100	700	Germany (DFG) (1)
		-	5	-	20	Germany (DFG) (2)
		-	100	-	-	Ireland

Comments

* Short term is 15 minutes unless otherwise specified.

1 Vapour

2 Respirable Fraction

Derived No-Effect Level (DNELs) Workers

Substance	Route	Acute/short-term exposure		Long-term exposure	
		Systemic effects	Local effects	Systemic effects	Local effects
Fuels, diesel	Inhalation	0.0001027 mg/m³ acute toxicity	No hazard identified	68.34 mg/m³ developmental toxicity/teratogenicity	No hazard identified
	Dermal	11.11 mg/m³ bw/day repeated dose toxicity	Low hazard (no threshold derived)	2.91 mg/m³ bw/day repeated dose toxicity	High hazard (no threshold derived)
	Eyes	No hazard identified	No hazard identified	No hazard identified	No hazard identified
Kerosine (petroleum)	Inhalation	No hazard identified	250 mg/m³	50 mg/m³	No hazard identified
	Dermal	No hazard identified	Low hazard (no threshold derived)	7.7 mg/kg bw/day	Low hazard (no threshold derived)
	Eyes	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
Fuels, diesel	Inhalation	2572.8 mg/m³ acute toxicity	No hazard identified	20.22 mg/m³ developmental toxicity / teratogenicity	No hazard identified
	Dermal	5.55 mg/m³ bw/day repeated dose toxicity	Low hazard (no threshold derived)	1.25 mg/m³ bw/day repeated dose toxicity	High hazard (no threshold derived)
	Oral	No hazard identified	-	1.25 mg/m³ bw/day repeated dose toxicity	-
	Eye	No hazard identified	No hazard identified	No hazard identified	No hazard identified
Kerosine (petroleum)	Inhalation	No hazard identified	Low hazard (no threshold derived)	10.66 mg/m³	No hazard identified
	Dermal	No hazard identified	Low hazard (no threshold derived)	1.64 mg/kg bw/day	Low hazard (no threshold derived)
	Oral	No hazard identified	-	5 mg/kg bw/day	-
	Eye	-	No hazard identified	-	No hazard identified

Predicted No Effect Concentration PNEC(S)

Environmental protection target	Fuels, diesel	Kerosine (petroleum)
Freshwater	0.021 mg/L	No data available: testing technically not feasible
Intermittent releases (freshwater)	No data available: testing technically not feasible	No data available: testing technically not feasible
Marine water	No data: aquatic toxicity unlikely	No data available: testing technically not feasible
Intermittent release (marine water)	No data: aquatic toxicity unlikely	No data available: testing technically not feasible
Sewage treatment plant (STP)	No data available: testing technically not feasible	No data available: testing technically not feasible
Sediment (freshwater)	No exposure of sediment expected	No data available: testing technically not feasible
Sediment (marine water)	No exposure of sediment expected	No data available: testing technically not feasible
Air	No hazard identified	No hazard Identified
Soil	No exposure of soil expected	No data available: testing technically not feasible
Predators – secondary poisoning	No potential to cause toxic effects if accumulated (in higher organisms) via the food chain	No potential to cause toxic effects if accumulated (in higher organisms) via the food chain

8.2 EXPOSURE CONTROLS

Appropriate engineering controls

Minimise exposure to mists/vapours/aerosols. Before entering storage, tanks and starting any work in a confined space, check the atmosphere and verify oxygen content and flammability. Accidently released gases and vapours have to be extracted.

Eye wash and quick-drench shower facilities should be available in the work area.

It is recommended to consider routes of exposure and potential of the chemical to cause harm when performing a workplace COSHH assessment.

Individual protection measures, such as personal protective equipment

Eye/face protection

In the absence of containment systems and if there is a risk of eye/face contact, wear head and face protection (visor and/or goggles (EN 16321)).

Skin protection

Hand protection

Use gloves with high hydrocarbon-resistant cuffs, fleece-lined, thermally insulated if necessary. PVC (polyvinyl chloride) gloves with a chemical protection rating of at least 5 (permeation time > 240 minutes) can be used for short periods. Neoprene or natural rubber (latex) do not have adequate resistance characteristics.

Use gloves in compliance with the conditions and limits set by the manufacturer. If necessary, refer to standard UNI EN 374.

Other skin protection

When handling the product, use work clothes with long sleeves. If necessary, refer to EN 465-466-467. In the event of clothing contamination, replace and clean them immediately.

Respiratory protection		Use only outdoors or in a well-ventilated area. Where airborne levels below the exposure limits cannot be maintained, wear an air-purifying respirator (EN 140) with a Type A/P2 filter or better suitable for organic gases and vapours with a boiling point above 65°C. (EN 14387).
Thermal hazards		For operations which result in elevating the temperature of the product to or above its melting point, use protective clothing and gloves to prevent skin contact.

Environmental exposure control
Do not release into the environment. Storage facilities must be equipped with appropriate systems to prevent soil and water contamination in the event of leaks or spills. Inform environmental manager of all incidents involving this product. Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an Occupational Exposure Limit and adequacy of exposure controls. For some substances, biological monitoring may also be appropriate. Information on suitable methods is available on request.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

(a) Physical state	Liquid
(b) Colour	Clear, pale yellow to brown
(c) Odour	Characteristic hydrocarbon
Odour threshold	No data available
(d) Melting point/freezing point	No data available
(e) Boiling point or initial boiling point and boiling range	150 – 300 °C
(f) Flammability	Flammable liquid and vapour
(g) Lower and upper explosion limit	No data available
(h) Flash point	> 50 °C (typical 55°C)
(i) Auto-ignition temperature	> 220 °C
(j) Decomposition temperature	No data available.
(k) pH	Not applicable. Based on solubility in water (immiscible in water)
(l) Kinematic viscosity	2 – 5 mm^2/s at 40 °C
(m) Solubility	Immiscible in water. Miscible in hydrocarbons.
(n) Partition coefficient n-octanol/water (log value)	No data available
(o) Vapour pressure	No data available
(p) Density and/or relative density	0.82 at 15°C (water=1)
(q) Relative vapour density	> 1 (air = 1)
(r) Particle characteristics	Not applicable
(s) Evaporation rate	No data available
(t) Explosive Properties	Not explosive. Vapour may form explosive mixture in air.
(u) Oxidising Properties	Not oxidizing

9.2 OTHER INFORMATION
No other information.

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY
Stable under normal conditions. Reacts with oxidising agents.

10.2 CHEMICAL STABILITY
Stable under normal use conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS
No hazardous reactions expected during normal use.

10.4 CONDITIONS TO AVOID
Keep away from oxidising agents. Keep away from heat/sparks/open flames/hot surfaces. Do not smoke. Avoid electrostatic charge formation. Prevent accumulation of vapours.

10.5 INCOMPATIBLE MATERIALS
Oxidizing agents e.g. chlorates and ammonium nitrate which can be used in agriculture. Strong reducing agents.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS
Combustion or thermal decomposition may liberate toxic fumes including carbon monoxide, carbon dioxide, various hydrocarbons, sulphur oxides and nitrogen oxides.

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. LD_{50} > 5000 mg/kg, rats,
Acute toxicity - dermal	Not classified. Based on the available data, the classification criteria are not met. LD_{50} >2000 mg/kg, rabbit.
Acute toxicity - inhalation	Acute toxicity, category 4. Harmful if inhaled. Fuels Diesel LC_{50}: 4.1 mg/L, 4 h, rats.
b) Skin corrosion/irritation	Skin corrosion/irritation, category 2. Causes skin irritation.
c) Serious eye damage/irritation	Not classified. Based on the available data, the classification criteria are not met.
d) Respiratory or skin sensitisation	
Respiratory sensitisation	Not classified. Based on the available data, the classification criteria are not met.
Skin sensitisation	Not classified. Based on the available data, the classification criteria are not met.
e) Germ cell mutagenicity	Not classified. Based on the available data, the classification criteria are not met.
f) Carcinogenicity	Carcinogenicity, category 2. Suspected of causing cancer.
g) Reproductive toxicity	Not classified. Based on the available data, the classification criteria are not met.
h) STOT single exposure	Specific target organ toxicity — single exposure, category 3. May cause drowsiness or dizziness.

i)	**STOT repeated exposure**	Specific target organ toxicity — repeated exposure, category 2. May cause damage to organs (thymus, liver and bone marrow) through prolonged or repeated exposure.
j)	**Aspiration hazard**	Aspiration hazard, category 1. May be fatal if swallowed and enters airways.

Information on likely routes of exposure

Inhalation	Harmful if inhaled. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in drowsiness, dizziness, light headedness, headache, disorientation, fatigue, nausea and loss of coordination. The onset of respiratory symptoms may be delayed for several hours after exposure.
Ingestion	May be fatal if swallowed and enters airways. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Ingestion may also cause gastrointestinal irritation, nausea, diarrhoea and vomiting.
Eye contact	Vapour, mist or fume may cause eye irritation. Exposure to vapour, mist or fume may cause stinging, redness and watering of the eyes.
Skin contact	Causes skin irritation. Prolonged or repeated contact can defeat the skin and lead to irritation and/or dermatitis.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Suspected of causing cancer and may cause damage to organs (thymus, liver and bone marrow) through prolonged or repeated exposure.

11.2 INFORMATION ON OTHER HAZARDS

Endocrine-disrupting properties

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

Other information

High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

Hazardous to the aquatic environment – Aquatic Chronic, category 2. Toxic to aquatic life with long lasting effects.

Fuels, diesel	LL_{50}/96h (freshwater fish): 21 mg/L NOEL (freshwater fish): 0.083 mg/L EL_{50}/48h (Daphnia magna): 68 mg/L NOEL/21 d (freshwater fish): 0.2 mg/L ErL_{50}/72h (aquatic algae): 22 mg/L EL_{50}/40h (Tetrahymena pyriformis): >1000 mg/L NOEL (Tetrahymena pyriformis): 3.217 mg/L
Kerosine (petroleum)	LL_{50}/96h (Oncorhynchus mykiss): 2 – 5 mg/L NOEL (Oncorhynchus mykiss): 2.0 mg/L NOEL/ 28 d (Freshwater Fish): 0.098 mg/L EL_{50}/48h (Daphnia magna): 1.4 mg/L NOEL/21 d (Daphnia magna): 0.3 mg/L NOEL/21 d (Daphnia magna): 0.48 mg/L LOEL/ (Daphnia magna): 1.2 mg/L EL_{50}/72h (Selenastrum capricornutum): 3.7 mg/L

EL_{50}/96h (Selenastrum capricornutum): 5 - 6.2 mg/L
NOEL (Selenastrum capricornutum): 0.4 - 6.2 mg/L
LL_{50}/72h (Tetrahymena pyriformis): 677.9 mg/L

12.2 PERSISTENCE AND DEGRADABILITY

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

Diesel is unlikely to undergo appreciable degradation through hydrolysis or photolysis although one test indicates that diesel is biodegradable through microbial action but fails the 10-day window. However, the 10-day window is not relevant for UVCB substances, so diesel is considered biodegradable. Hydrocarbons may be degraded under aerobic conditions into metabolites that are less toxic and less bioaccumulative.

Kerosine is readily biodegrade in 28 days but not within the 10-day window. Therefore, kerosine is not readily biodegradable, but as it can be degraded by micro-organisms, kerosine is regarded as being inherently biodegradable.
Kerosine oxidises rapidly by photochemical reactions in air. Kerosine persists under anaerobic conditions. The volatile components oxidise rapidly by photochemical reactions in air.

12.3 BIOACCUMULATIVE POTENTIAL

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

Substance is a hydrocarbon UVCB, so tests are not usually appropriate. Calculated Kow values are in the range of 3.9 – 6 indicating a high potential to bioaccumulate. However, in practice, metabolic processes may reduce bioconcentration.

12.4 MOBILITY IN SOIL

Spillages may penetrate the soil causing ground water contamination. Floats on water. Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. Largevolumes may penetrate soil and could contaminate groundwater.

Koc uptake: standard tests for this endpoint are not applicable to UVCB substances.

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

The mixture has no endocrine-disrupting effects.

12.7 OTHER ADVERSE EFFECTS

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Waste treatment methods
Do not discharge onto the ground or into sewers, drains or watercourses. For the disposal of waste from the product, including empty containers that have not been reclaimed.

Product disposal
13 07 01* fuel oil and diesel. The code given is only a general indication, based on the original composition of the product and its intended uses. It is the responsibility of the waste producer to choose the most appropriate code based on the actual use of the product, possible alterations, and contamination.

Packaging disposal
Waste packaging should be recycled wherever possible. Send to drum recycler or metal reclaimer. Care should be taken when handling emptied containers that have not been cleaned out. Drain container thoroughly. After draining, vent in a safe place

away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Incineration or landfill should only be considered when recycling is not feasible.

Local legislation
Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with Hazardous Waste (England and Wales) Regulations 2005 and EU Waste Framework Directive 2008/98/EC.

SECTION 14: TRANSPORT INFORMATION

ADR, RID, ADN, IMDG Code, IATA

14.1 UN NUMBER OR ID NUMBER
UN 1202

14.2 UN PROPER SHIPPING NAME
HEATING OIL, LIGHT

14.3 TRANSPORT HAZARD CLASS(ES)
Class 3

14.4 PACKING GROUP
III

14.5 ENVIRONMENTAL HAZARDS
ADR/IATA/RID/ADN YES
IMDG Marine Pollutant

14.6 SPECIAL PRECAUTIONS FOR THE USER
Transport, including loading and unloading, must be carried out by personnel who have received the necessary training in the relevant modal regulations concerning the transport of dangerous goods.

During loading and unloading, apply the personal protective measures prescribed in section 8.2.2 of this sheet. Avoid direct skin contact with the product. Identify potential areas of indirect skin contact. Wear protective gloves (tested according to EN374) if the substance is likely to meet hands. Remove contamination/spillages as soon as they occur. Remove any skin contamination immediately. Provide basic training to personnel aimed at preventing/limiting exposure (E3).

Tunnel Restriction Code (ADR): D/E
Transport category: 3
Shipboard emergency measures (IMDG): EmS F-E S-E
Hazard identification number: 3
Emergency Action Code: 3Y

14.7 MARITIME TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS
If intend to be transported in bulk, follow (IMO) regulations and SOLAS Chapters VI and VII, Annex II or Annex V, Marpol 73/78 and the IBC Code where applicable.

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

The product is classified in accordance with EC Regulation 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.

Waste Framework Directive 2008/98/EC.

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

Directive 98/70/EC.

Authorisations and/or restrictions on use:

Not component listed.

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants
No component listed.

Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer
No component listed.

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals
No component listed.

Regulation (EU) N° 528/2012 Biocidal Products Regulation
No component listed.

15.2 CHEMICAL SAFETY ASSESSMENT

A chemical safety assessment has not been carried out for this product.

SECTION 16: OTHER INFORMATION

I) INDICATION OF CHANGES

SDS Reference: Furnace Flame 03

Version number: 3

Revision date: 13/03/2026. Update of all sections of the SDS to comply with COMMISSION REGULATION (EU) 2020/878.

II) ABBREVIATIONS AND ACRONYMS

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
bw	Body weight
CAS number	Chemical Abstracts Service Number
CLP	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures
COSHH	Control of Substances Hazardous to Health
EC number	European Inventory of Existing Commercial Chemical Substances or European List of Notified Chemical Substances number
EL_{50}	Effective Loading 50%
GESTIS ILV	International Limit Values for chemical agents
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC_{50}	Lethal concentration 50%
LD_{50}	Lethal dose 50%
LL_{50}	Lethal Loading 50%
NOEL	No observed effect level
PBT	Persistent, bioaccumulative and toxic
REACH	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCL	Specific Concentration Limit
STOT	Specific target organ toxicity
vPvB	very persistent and very bioaccumulative

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/)
Concawe Report 01/97 – Petroleum Products – First Aid Emergency and Medical Advice.
Concawe Report 00/56 – Revised Preparations – Summary Data and Rationale.
CENELEC CLC/TR 50404 Electrostatics – Code of Practice for the Avoidance of Hazards Due to Static Electricity.
Dangerous Goods Regulations – ADR/RID, ADN/ADNR, IMDG, IATA.
European Model Code of Safe Practice in the Storage and Handling of Petroleum Products, Associated Octel Company.
UK – Leaded Gasoline Tank Cleaning and Disposal of Sludge (Booklet OIP/5 (5/99)).
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]

Classification according to Regulation (EC) No. 1272/2008 and GB CLP	Classification procedure
Flam. Liq. 3; H226	Test data
Asp. Tox. 1; H304	Calculation method
Skin Irrit. 2; H315	Calculation method
Acute Tox. 4 (Inhalation); H332	Calculation method
STOT SE 3; H336	Expert judgement
Carc. 2; H351	Calculation method
STOT RE 2 (thymus, liver and bone marrow); H373	Calculation method
Aquatic Chronic 2; H411	Summation method

V) RELEVANT H-STATEMENTS (NUMBER AND FULL TEXT)

Flam. Liq. 3; H226	Flammable liquid, category 3. Flammable liquid and vapour.
Asp. Tox. 1; H304	Aspiration hazard, category 1. May be fatal if swallowed and enters airways.
Skin Irrit. 2; H315	Skin corrosion/irritation, category 2. Causes skin irritation.
Acute Tox. 4 (Inhalation); H332	Acute toxicity, category 4. Harmful if inhaled.
STOT SE 3; H336	Specific target organ toxicity — single exposure, category 3. May cause drowsiness or dizziness.
Carc. 2; H351	Carcinogenicity, category 2. Suspected of causing cancer.
STOT RE 2 (thymus, liver and bone marrow); H373	Specific target organ toxicity — repeated exposure, category 2. May cause damage to organs (thymus, liver and bone marrow) through prolonged or repeated exposure.
Aquatic Chronic 2; H411	Hazardous to the aquatic environment – Aquatic Chronic, category 2. Toxic to aquatic life with long lasting effects.

VI) SDS DISTRIBUTION AND TRAINING

This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters. Workers should be trained to handle this substance safely.

VII) FURTHER INFORMATION

Users are advised to refer to relevant legislation, approved codes of practice and guidance available from the Health & Safety Executive (website: http://www.hse.gov.uk) and to the IP Codes of Practice available from the Energy Institute (website: http://www.energyinst.org.uk).

End of safety data sheet

DISCLAIMER

The above information is based on our current knowledge of the product. The purpose of this data sheet is to describe the product in terms of its safety and environmental requirements. It is the user's responsibility to satisfy themselves as to the application of this information and/or recommendations for their own use. This safety data sheet contains important information to ensure the safe storage, handling and use of this product, it does not however constitute an assessment of workplace risks. The advice given in this safety data sheet reflects the current knowledge of the hazards and risks associated with the handling of the product. If the product is mixed with other materials the users shall take these into account in identifying any additional hazards and risks might arise.