



SAFETY DATA SHEET

Morendo DD Diesel Fuel Additive

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

1.1. Product identifier

Product name	Morendo DD Diesel Fuel Additive
Product number	7042
Internal identification	GHS21454

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

Identified uses	Fuel additive.
Uses advised against	Non specified unless otherwise stated within this MSDS

1.3. Details of the supplier of the safety data sheet

Supplier	Morris Lubricants Castle Foregate Shrewsbury Shropshire SY1 2EL +44 (0) 1743 232200 +44 (0) 1743 353584 sds@morris-lubricants.co.uk
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1.4. Emergency telephone number

Emergency telephone	+44(0)1743 232200 (08.45 - 17.00 GMT)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Asp. Tox. 1 - H304
Environmental hazards	Aquatic Chronic 3 - H412

Classification (67/548/EEC or -
1999/45/EC)

2.2. Label elements

Hazard pictograms



Signal word	Danger
Hazard statements	H304 May be fatal if swallowed and enters airways. H412 Harmful to aquatic life with long lasting effects.

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Precautionary statements	<p>P261 Avoid breathing vapour/ spray.</p> <p>P273 Avoid release to the environment.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.</p> <p>P331 Do NOT induce vomiting.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P501a Dispose of contents/container to hazardous or special waste collection point.</p>
Contains	Hydrocarbons C10-13 N-Alkanes, Isoalkanes, Cyclics <2% Aromatics, Solvent naptha (petroleum), heavy aromatic

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hydrocarbons C10-13 N-Alkanes, Isoalkanes, Cyclics <2% Aromatics			10-30%
CAS number: —	EC number: 918-481-9	REACH registration number: 01-2119457273-39-0000	
Classification			
Asp. Tox. 1 - H304			
2-Ethylhexyl Nitrate			1-5%
CAS number: 27247-96-7	EC number: 248-363-6	REACH registration number: 01-2119539586-27	
Classification		Classification (67/548/EEC or 1999/45/EC)	
Acute Tox. 4 - H302		Xn;R20/21/22. N;R51/53. R44,R66.	
Acute Tox. 4 - H312			
Acute Tox. 4 - H332			
Aquatic Chronic 2 - H411			
2-Ethyl hexanol			1-5%
CAS number: 104-76-7	EC number: 203-234-3	REACH registration number: 01-2119487289-20-0000	
Classification		Classification (67/548/EEC or 1999/45/EC)	
Skin Irrit. 2 - H315		Xi;R36/38.	
Eye Irrit. 2 - H319			
Solvent naptha (petroleum), heavy aromatic			1-5%
CAS number: 64742-94-5	EC number: 265-198-5	REACH registration number: 01-2119510128-50-0000	
Classification		Classification (67/548/EEC or 1999/45/EC)	
STOT SE 3 - H336		Xn;R65. N;R51/53. R66,R67.	
Asp. Tox. 1 - H304			
Aquatic Chronic 2 - H411			

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Benzene, 1,2,4-trimethyl		<1%
CAS number: 95-63-6	EC number: 202-436-9	REACH registration number: 01-2119472135-42-0000
Classification	Classification (67/548/EEC or 1999/45/EC)	
Flam. Liq. 3 - H226	Xn;R20. Xi;R36/37/38. N;R51/53. R10.	
Acute Tox. 4 - H332		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
STOT SE 3 - H335		
Aquatic Chronic 2 - H411		
Naphthalene		<1%
CAS number: 91-20-3	EC number: 202-049-5	REACH registration number: 01-2119561346-37-0000
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification	Classification (67/548/EEC or 1999/45/EC)	
Acute Tox. 4 - H302	Carc. Cat. 3;R40 Xn;R22 N;R50/53	
Carc. 2 - H351		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention if any discomfort continues.
Inhalation	If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Get medical attention if any discomfort continues. Do not induce vomiting. Product contains petroleum based material, which, if aspirated into the lungs may result in chemical pneumonia.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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

General information	If aspiration into the lungs is suspected, eg when vomiting, admit to hospital immediately.
Inhalation	Upper respiratory irritation.
Ingestion	May cause discomfort if swallowed. The product contains mineral oil, which if aspirated into the lungs through vomiting after ingestion, may result in chemical pneumonia.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Irritation of eyes and mucous membranes.

4.3. Indication of any immediate medical attention and special treatment needed

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Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Heat from fire could result in drums bursting

Hazardous combustion products Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³. Oxides of carbon. Oxides of nitrogen. Fire may also create other unidentified organic gases some of which may be toxic.

5.3. Advice for firefighters

Protective actions during firefighting Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Environmental precautions Contain spillage with sand or earth. Avoid the spillage or runoff entering drains, sewers or watercourses. The product is insoluble in water and will spread on the water surface.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain spillage with sand or earth. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Avoid water contacting spilled material or leaking containers. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. In case of spillage on water prevent the spread by use of suitable barrier equipment

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

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Storage class Miscellaneous hazardous material storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

2-Ethylhexyl Nitrate

Long-term exposure limit (8-hour TWA): OEL 1 ppm

Benzene, 1,2,4-trimethyl

Long-term exposure limit (8-hour TWA): WEL 25 ppm

OEL = Occupational Exposure Limit.

WEL = Workplace Exposure Limit

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Use barrier creams to prevent skin contact.

Hygiene measures

Use engineering controls to reduce air contamination to permissible exposure level. Wash promptly with soap and water if skin becomes contaminated.

Respiratory protection

No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

Thermal hazards

Not anticipated under normal conditions of use. The product is combustible if heated excessively and an ignition source is applied.

Environmental exposure controls

Do not allow product to contaminate land.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Yellow.
Odour	Characteristic. Oil-like.
Odour threshold	Not determined.
pH	Not applicable.

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Melting point	Not applicable.
Initial boiling point and range	>320°C @ 101.3 kPa
Flash point	74°C Pensky-Martens closed cup.
Upper/lower flammability or explosive limits	Not known.
Other flammability	Product is not flammable but on excessive heating may become combustible.
Vapour pressure	<0.1 kPa @ 20°C
Vapour density	Not determined.
Relative density	0.860 @ 15.6°C
Solubility(ies)	Insoluble in water. Soluble in the following materials: Organic solvents.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	19.5 cSt @ 40°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound	The product is a complex mixture, the majority of which would not be classed as a VOC. However it cannot be discounted that trace or low levels of VOCs may be present.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Unlikely to occur under normal conditions of use. Unlikely to occur.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Oxides of carbon. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m ³ .
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SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Not expected to be highly toxic based on information of ingredients.

ATE oral (mg/kg) 11,904.76

Acute toxicity - dermal

Notes (dermal LD₅₀) Not expected to be highly toxic based on information of ingredients.

ATE dermal (mg/kg) 7,857.14

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Not determined. The product is unlikely to present any significant inhalation hazard at ambient temperatures and under normal conditions of use.

ATE inhalation (gases ppm) 107,142.86

ATE inhalation (vapours mg/l) 261.9

ATE inhalation (dusts/mists mg/l) 35.71

Serious eye damage/irritation

Serious eye damage/irritation May cause mild, short lasting discomfort to eyes.

Respiratory sensitisation

Respiratory sensitisation No evidence to suggest the product will be a respiratory sensitiser. Repeated exposure to oil mists may cause respiratory damage.

Skin sensitisation

Skin sensitisation Not expected to be a skin sensitizer based on information on components.

Reproductive toxicity

Reproductive toxicity - fertility No data available to suggest the product will cause reproductive toxicity.

Aspiration hazard

Aspiration hazard Kinematic viscosity <= 20.5 cSt @ 40 C. Poses an aspiration hazard.

General information

This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

Ingestion

Swallowing significant quantities may cause discomfort, nausea, diarrhoea and irritation of the digestive tract. Aspiration into the lungs (e.g. through vomiting) after ingestion can be hazardous with possible resultant chemically induced pneumonia.

Skin contact

Skin irritation should not occur when used as recommended. Repeated exposure may cause skin dryness or cracking.

Eye contact

May cause temporary eye irritation.

Acute and chronic health hazards

Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

SECTION 12: Ecological information

Ecotoxicity

Harmful to aquatic life with long lasting effects.

12.1. Toxicity

12.2. Persistence and degradability

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Persistence and degradability	The product is not classed as being readily biodegradable by OECD test methods but is considered inherently biodegradable.
Stability (hydrolysis)	The product is based on highly refined mineral oils that are considered stable to hydrolysis.
Biodegradation	The product is not considered readily biodegradable, albeit the major constituents are expected to ultimately biodegrade.
Biological oxygen demand	Not determined.
Chemical oxygen demand	Not determined.
<u>12.3. Bioaccumulative potential</u>	
Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.
Partition coefficient	Not determined.
<u>12.4. Mobility in soil</u>	
Mobility	The product is non-volatile. The product is insoluble in water and will spread on the water surface.
Henry's law constant	Not determined.
<u>12.5. Results of PBT and vPvB assessment</u>	
Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.
<u>12.6. Other adverse effects</u>	
Other adverse effects	None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Waste class	EWC 13 02 XX

SECTION 14: Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

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Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Pollution Prevention and Control Act 1999. Special Waste regulations 1996. Control of Pollution (Oil Storage) (England) Regulations 2001 The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Dangerous Preparations Directive 1999/45/EC. Dangerous Substances Directive 67/548/EEC. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). 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 (as amended).
Guidance	Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines – PICCS

All the ingredients are listed or exempt.

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New Zealand - NZIOC

All the ingredients are listed or exempt.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	19/12/2019
Revision	2
Supersedes date	25/11/2015
SDS number	21454
Risk phrases in full	Not classified.
Hazard statements in full	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer. 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. H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.