DIESEL INJECTOR & TURBO CLEANER

MATERIAL SAFETY DATA SHEET

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

1.1. Product identifier

Product form:	Mixture
Product name:	Diesel Injector And Turbo Cleaner
Product code:	542

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

1.2.1. Relevant identified uses

Intended for general public

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Fast Racing Fuels
20 Brand Road, Brand Park, Unit 6, Westmead, Durban, South Africa, 3610
T +27 (67) 777 2000
info@fastracingfuels.co.za - www.fastracingfuels.co.za

1.4. Emergency number: +27 (67) 777 2000

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3	H226
Acute toxicity (inhalation:vapour) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP):

GHS07 GHS09

Signal word (CLP): Warning
Contains: n-nonane
Hazard statements (CLP): H226 - _H_226_EU.
H315 - _H_315_EU.
H332 - _H_332_EU.
H336 - _H_336_EU.
H410 - _H_410_EU.

Precautionary statements (CLP): P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - _P_233_EU.
P240 - _P_240_2_EU.
P241 - _P_241_2_EU.
P261 - _P_261_EU.
P264 - _P_264_EU.
P271 - _P_271_EU.
P273 - _P_273_EU.
P280 - _P_280_2_EU.
P302+P352 - _P_302-352_2_EU.
P303+P361+P353 - _P_303-361-353_3_EU.
P304+P340 - _P_304-340_2_EU.
P312 - _P_312_4_EU.
P321 - _P_321_EU.
P332+P313 - _P_332-313_EU.
P362+P364 - _P_362-364_EU.
P370+P378 - _P_370-378_2_EU.
P391 - _P_391_EU.
P403+P233 - _P_403-233_EU.
P403+P235 - _P_403-235_EU.
P405 - _P_405_EU.
P501 - _P_501_EU.

2.3. Other hazards

Contains vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
n-nonane	(CAS-No.) 111-84-2 (EC-No.) 203-913-4	80 – 95	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-ethylhexyl nitrate	(CAS-No.) 27247-96-7 (EC-No.) 248-363-6	5 – 10	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302 Aquatic Chronic 2, H411
cerium dioxide	(CAS-No.) 1306-38-3 (EC-No.) 215-150-4	0.1 – 1	Acute Tox. 4 (Oral), H302

Full text of H-statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

No additional information available

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

No additional information available

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

No additional information available

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

No additional information available

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

No additional information available

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

No additional information available

7.2. Conditions for safe storage, including any incompatibilities

No additional information available

7.3. Specific end use(s)

No additional information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters n-nonane (111-84-2)

Belgium - Occupational Exposure Limits

Limit value (mg/m^3)	1065 mg/m^3
Limit value (ppm)	200 ppm

France - Occupational Exposure Limits	
VME (mg/m³)	1050 mg/m³
VME (ppm)	200 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	200 ppm

8.2. Exposure controls

No additional information available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	No data available
Odour:	characteristic
Odour threshold:	No data available
pH:	No data available
Relative evaporation rate (butylacetate=1):	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	≈ 151 °C
Flash point:	≈ 31 °C
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Vapour pressure:	≈ 4.7 hPa
Relative vapour density at 20 °C:	No data available
Relative density:	No data available
Density:	≈ 0.888 g/cm³
Solubility:	Organic solvent:≈ 80 g/100ml
Partition coefficient n-octanol/water (Log Pow):	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Lower explosive limit (LEL):	≈ 0.7 vol %
Upper explosive limit (UEL):	≈ 5.6 vol %

9.2. Other information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity (oral):	Not classified
Acute toxicity (dermal):	Not classified
Acute toxicity (inhalation):	_H_332_EU.
Diesel Injector And Turbo Cleaner	
ATE CLP (vapours)	15.391 mg/l/4h
n-nonane (111-84-2)	
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	17 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male, Literature, Inhalation (vapours), 14 day(s))
cerium dioxide (1306-38-3)	
LD50 oral rat	1000 mg/kg (Rat, Oral)
2-ethylhexyl nitrate (27247-96-7)	
LD50 oral rat	> 9600 mg/kg (Other, Rat, Male/female, Experimental value)

Skin corrosion/irritation:	_H_315_EU.
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitisation:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT-single exposure:	_H_336_EU.
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Acute aquatic toxicity:	_H_400_EU.
Chronic aquatic toxicity:	_H_410_EU.

n-nonane (111-84-2)

EC50 Daphnia 1	0.2 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

2-ethylhexyl nitrate (27247-96-7)

LC50 fish 1	2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Semi-static system, Fresh water, Experimental value)
EC50 Daphnia 1	> 12.6 mg/l (OECD 202: Daphnia sp. Acute Immobil isation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 (algae)	3.22 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

n-nonane (111-84-2)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.

2-ethylhexyl nitrate (27247-96-7)

Persistence and degradability	Biodegradability: not applicable.

Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

2-ethylhexyl nitrate (27247-96-7)

Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

n-nonane (111-84-2)

BCF other aquatic organisms 1	105 (BCFBAF v3.00, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	5.65 (Literature)
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).

cerium dioxide (1306-38-3)

Bioaccumulative potential	No bioaccumulation data available.

2-ethylhexyl nitrate (27247-96-7)

Partition coefficient n-octanol/water (Log Pow)	5.24 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).

12.4. Mobility in soil

n-nonane (111-84-2)

Surface tension	22.38 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.9 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

cerium dioxide (1306-38-3)

Ecology - soil	Adsorbs into the soil.

2-ethylhexyl nitrate (27247-96-7)

Partition coefficient n-octanol/water (Log Koc)	3.75 (log Koc, OECD 121: Estimation of the Adsorp tion Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Low potential for mobility in soil.

12.5. Results of PBT and vPvB assessment Component

n-nonane (111-84-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-ethylhexyl nitrate (27247-96-7)	This substance/mixture meets the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

No additional information available

SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR):	UN 1993
UN-No. (IMDG):	UN 1993
UN-No. (IATA):	UN 1993
UN-No. (ADN):	Not applicable
UN-No. (RID):	Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR):	FLAMMABLE LIQUID, N.O.S.
Proper Shipping Name (IMDG):	Not applicable
Proper Shipping Name (IATA):	Not applicable
Proper Shipping Name (ADN):	Not applicable
Proper Shipping Name (RID):	Not applicable
Transport document description (ADR):	UN 1993 FLAMMABLE LIQUID, N.O.S., 3, I, (D/E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG):	UN 1993 , MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA):	UN 1993 , ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR):	3
Danger labels (ADR):	3

IMDG
Transport hazard class(es) (IMDG): Not applicable

IATA
Transport hazard class(es) (IATA): Not applicable

ADN
Transport hazard class(es) (ADN): Not applicable

RID
Transport hazard class(es) (RID): Not applicable

14.4. Packing group

Packing group (ADR):	I
Packing group (IMDG):	Not applicable
Packing group (IATA):	Not applicable
Packing group (ADN):	Not applicable
Packing group (RID):	Not applicable

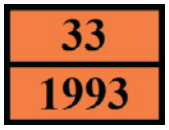
14.5. Environmental hazards

Dangerous for the environment:	Yes
Marine pollutant:	Yes
Other information:	No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR):	F1
Special provisions (ADR):	274
Limited quantities (ADR):	0
Excepted quantities (ADR):	E3

Packing instructions (ADR):	P001
Mixed packing provisions (ADR):	MP7, MP17
Portable tank and bulk container instructions (ADR):	T11
Portable tank and bulk container special provisions (ADR):	TP1, TP27
Tank code (ADR):	L4BN
Vehicle for tank carriage:	FL
Transport category (ADR):	1
Special provisions for carriage - Operation (ADR):	S2, S20
Hazard identification number (Kemler No.):	33
Orange plates:	
Tunnel restriction code (ADR):	D/E
EAC code:	•3YE
APP code:	B
Transport by sea	No data available
Air transport	No data available
Inland waterway transport	Not applicable
Rail transport	Not applicable

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

Not applicable

SECTION 15: REGULATORY INFORMATION

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

Germany

Employment restrictions:	Observe restrictions according Act on the Protection of Working Mothers (MuSchG) Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)

Water hazard class (WGK):	WGK 3, severe hazard to waters (Classification according to AwSV, Annex 1)
Hazardous Incident Ordinance (12. BImSchV):	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen:	None of the components are listed
SZW-lijst van mutagene stoffen:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling:	None of the components are listed

Denmark

Classification remarks:	Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations:	Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: OTHER INFORMATION

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H226	_H_226_EU
H302	_H_302_EU

H304	_H_304_EU
H312	_H_312_EU
H315	_H_315_EU
H332	_H_332_EU
H336	_H_336_EU
H400	_H_400_EU
H410	_H_410_EU
H411	_H_411_EU

DISCLAIMER