

Safety data sheet
according to (EU) 2015/830

Printing date 23.10.2017

Version number 1.1

Revision: 23.10.2017

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

· **1.1 Product identifier**

· **Trade name: DIESEL IMPROVER**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture**

Diesel additive

Only for proper handling.

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

BUCHER_AG_LANGENTHAL

MOTOREX-Schmiertechnik

Bern-Zürich-Strasse_31__

CH-4901_Langenthal__

Telefon_+41_(0)62_919_75_75

· **Only representative in EU:**

MOTOREX Deutschland AG, Bismarckstrasse 28, D-69198 Schriesheim

· **Further information obtainable from: msds@motorex.com**

· **1.4 Emergency telephone number:**

In case of a medical emergency following exposure to a chemical, the public should call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24 (UK only).

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

· **Hazard statements**

H304 May be fatal if swallowed and enters airways.

H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P273 Avoid release to the environment.

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P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P331 Do NOT induce vomiting.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

EUH044 Risk of explosion if heated under confinement.

· **2.3 Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

EC number: 926-141-6 Reg.nr.: 01-2119456620-43	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics Asp. Tox. 1, H304	70-100%
EINECS: 248-363-6 Reg.nr.: 01-2119539586-27	2-Ethylhexylnitrate Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	5-10%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:**

Remove residues with soap and water.

Remove contaminated clothing immediately.

· **After eye contact:** Rinse opened eye for several minutes under running water.· **After swallowing:**

Do not induce vomiting. Do not take in resorption stimulating agents.

Consult a physician who will decide on need and method of emptying the stomach.

· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**· **Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.· **For safety reasons unsuitable extinguishing agents: DO NOT USE WATER JET**· **5.2 Special hazards arising from the substance or mixture**

No further relevant information available.

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- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Not required.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Vapours of this product are heavier than air and will collect in low areas such as pits, storage tanks, and other confined areas.
- **Information about fire - and explosion protection:**
Do not heat above flash point.
Do not spray onto a naked flame or any incandescent material.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store in cool, dry well ventilated area away from sources of ignition and heat.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 10
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs****2-EthylhexylNitrate**

Oral	DNEL/general population/Systemic effects/Long-term	0.025 mg/kg/24h (consumer)
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Dermal	DNEL / Workers / Local Effects / Long-term	0.044 mg/cm ² (worker)
	DNEL / Workers / Systemic effects / Long-term	1 mg/kg/24h (worker)
	DNEL/general population/Systemic effects/Long-term	520 mg/kg/24h (consumer)
	DNEL/general population/Local effects/Long-term	0.022 mg/cm ² (consumer)
Inhalative	DNEL / Workers / Systemic effects / Long-term	0.35 mg/m ³ (worker)
	DNEL/general population/Systemic effects/Long-term	0.087 mg/m ³ (consumer)

· **PNECs****2-Ethylhexylnitrate**

PNEC / Aquatic organisms / Freshwater	0.0008 mg/l (aquatic organisms)
PNEC / Aquatic organisms / Marine water	0.00008 mg/l (aquatic organisms)
PNEC / Aquatic organisms / Sewage treatment plant/STP	10 mg/l (aquatic organisms)
PNEC / Aquatic organisms / Sediment (freshwater)	0.00074 mg/kg (aquatic organisms)
PNEC / Aquatic organisms / Sediment (marine water)	0.00074 mg/kg (aquatic organisms)
PNEC / Terrestrial organism / Soil	0.000191 mg/kg (terrestrial organisms)

· **Additional information:** The lists valid during the making were used as basis.· **8.2 Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Not necessary if room is well-ventilated.

Respiratory protection if formation of aerosol or mist: use mask with filter type A2, A2/P2 or ABEK.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Protective gloves to EN374, resistant to oil in use. Standard EN 374 Level 3 control G1

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Fluorocarbon rubber (Viton)

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.4 mm· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the mixture of chemicals mentioned below the penetration time has to be at least 60 minutes (Permeation according to EN 374 Part 3: Level 1).

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- **Eye protection:** Goggles recommended during refilling
- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Colour:	Brown
Odour:	Solvent-like
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	175 °C (DIN EN ISO 3405)

· **Flash point:** >75 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 210 °C (DIN 51794)

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· **Vapour pressure at 20 °C:** 1 hPa

· **Density at 20 °C:** 0.812 g/cm³ (ASTM D 4052)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· **Partition coefficient: n-octanol/water:** Not determined.

· Viscosity:

Dynamic:	2.7 mPa*s @ 20 °C
Kinematic:	Not determined.
VOC (EC)	89.11 %

· **Solids content:** 0.0 %

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** With strong oxidisers.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.
- **Additional information:** Hazardous polymerisation will not occur.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

Oral	LD50	5,000 mg/kg (rat)
	NOAEL	1,000-5,000 mg/kg/24h (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50 / 4h	5.28 mg/l (rat)
	NOAEL	200 ppm (rat)
	NOAEC	275-10,400 mg/m ³ (rat)

2-Ethylhexylnitrate

Oral	LD50	10 ml/kg (rat)
Dermal	NOAEL	500 mg/kg/24h (rabbit)
Inhalative	NOAEC	120 ppm (rat)
	NOAEC	639-863 mg/m ³ (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**
Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
Elevated temperatures may generate vapour levels sufficient to cause respiratory irritation.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard**
May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

LL50	2-5 mg/l/96h (fish)
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LL50	2-5 mg/l/48h (fish)
LL50	5-17 mg/l/24h (fish)
EL50	1.4 mg/l/48h (aquatic invertebrates)
EL50	4.6 mg/l/24h (aquatic invertebrates)
	1-3 mg/l/24h (algae / cyanobacteria)
EL50	1-3 mg/l/72h (algae / cyanobacteria)
EL50	0.81-0.89 mg/l/21d (aquatic invertebrates)
NOELR	1.22 mg/l/21d (aquatic invertebrates)
NOELR	1,000 mg/l/72h (algae / cyanobacteria)

2-Ethylhexylnitrate

LC50	2 mg/l/96h (fish)
EC50	1,000 mg/l/3h (microorganisms)
EC50	5.35 mg/l/24h (algae / cyanobacteria)
EC10	0.76-1.54 mg/l/72h (algae / cyanobacteria)
EC50	1.57-3.22 mg/l/72h (algae / cyanobacteria)
EC50	12.6 mg/l/48h (aquatic invertebrates)
	3.26 mg/l/48h (algae / cyanobacteria)
NOEC	1.52 mg/l/96h (fish)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential**

2-Ethylhexylnitrate

Partition coefficient	5.24 [---] (log Kow) (Bioaccumulation)
Biodegradability	0 % (28d) (Biodegradability) (OECD 301 F)

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Harmful to fish

· **Additional ecological information:**

· **General notes:**

Upon release into the aquatic environment the material will float and partially evaporate.

Water hazard class 2 (German Regulation) (Self-classification according VwVwS, 17.05.1999): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

· **European waste catalogue**

07 06 04*	other organic solvents, washing liquids and mother liquors
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|-----------------|
| · 14.1 UN-Number
· ADR/RID/ADN, ADN, IMDG, IATA | Void |
| · 14.2 UN proper shipping name
· ADR/RID/ADN, ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es)
· ADR/RID/ADN, ADN, IMDG, IATA
· Class | Void |
| · 14.4 Packing group
· ADR/RID/ADN, IMDG, IATA | Void |
| · 14.5 Environmental hazards:
· 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 | Not applicable. |
| · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **15.2 Chemical safety assessment:**
A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The classification of the mixture was carried out by calculation in accordance with the rules laid down in Annex I of Regulation (EC) No 1272/2008.

No special training instructions to ensure protection of human health and environment are required.

- **Relevant phrases**
- H302 Harmful if swallowed.*
- H304 May be fatal if swallowed and enters airways.*
- H312 Harmful in contact with skin.*
- H332 Harmful if inhaled.*
- H411 Toxic to aquatic life with long lasting effects.*

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- **Department issuing SDS:** *Abteilung Produktsicherheit*
- **Abbreviations and acronyms:**
 - Acute Tox. 4: Acute toxicity – Category 4*
 - Asp. Tox. 1: Aspiration hazard – Category 1*
 - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*
 - Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3*
- *** Data compared to the previous version altered.**

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