

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**

GHS Product Identifier	Boester RSME
EC INDEX No.	267-015-4
CAS No.	67762-38-3
Alternative names	Methyl Ester of Fatty Acids, Fatty acids, C16-18 and C18 unsaturated, methyl esters
REACH Registration No.	01-2119471664-32-XXXX

1.2 Relevant identified uses of the substance or mixture and uses advised against Identified use(s)

Uses advised against	Plasticizer, Diesel engines, Heating fuel. Technical application None known.
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1.3 Details of the supplier of the safety data sheet

Company Identification	Boedal Ltd 11 Portland Street Southampton Hampshire SO14 7EB United Kingdom
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Tel: + 44 (0)2380 089083
Fax: + 44 (0)2380 335784

E-Mail (competent person) info@boedal.com

1.4 Emergency telephone number +44(0)2380 089083 Outside office hours + 41 (0)79 343 7534

2. SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Regulation (EC) No. 1272/2008 (CLP).	Not classified as Dangerous according to Regulation (EC) No. 1272/2008 (CLP)
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2.2 Label elements None required.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Contains no hazardous ingredients According to Regulation (EC) No. 1272/2008 (CLP).

4. SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

Inhalation	Remove patient from exposure, keep warm and at rest. Obtain medical attention if ill effects occur.
Skin Contact	Remove contaminated clothing. Wash skin with water and soap. If symptoms develop, obtain medical attention.
Eye Contact	Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Obtain medical attention.
Ingestion	Do not induce vomiting. Provided the patient is conscious, wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

If skin irritation or rash occurs: Get medical advice/attention.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

5. SECTION 5: FIRE-FIGHTING MEASURES**5.1 Extinguishing media****Suitable Extinguishing Media**

As appropriate for surrounding materials/equipment. Use water with care to avoid possible violent production of steam. Water spray should be used to cool containers.

Unsuitable Extinguishing Media

None anticipated.

5.2 Special hazards arising from the substance or mixture

Combustible. Combustion or thermal decomposition will evolve irritant vapours.

5.3 Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain

6. SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Eliminate sources of ignition. Wear suitable gloves and eye/face protection. Do not breathe mist/vapours/spray.

6.2 Environmental precautions

Do not allow spillages to enter drains, sewers, or watercourses.

6.3 Methods and material for containment and cleaning up

Allow product to cool/solidify and pick up as a solid. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal or recovery.

6.4 Reference to other sections

See Section: 8, 13

6.5 Additional information

Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

7. SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Do not breathe vapour. Provide adequate ventilation. Do not allow to enter drains, sewers or watercourses.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from strong oxidizing agents. Store in original containers. Keep away from heat, hot surfaces and sources of ignition. Protect from frost.

Storage Temperature : +15 to +25°C (Freezing Point (°C) : 6).

Total storage life at recommended conditions: 2 years if stored in accordance with advice given above.

7.3 Specific end use(s)

None

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

No Occupational Exposure Limit Assigned

DNEL / DMEL	Oral	Inhalation	Dermal
Industry - Long Term - Local effects	-	-	-
Industry - Long Term - Systemic effects	-	6.96 mg/m³	10 mg/kg bw/day
Industry - Short term - Local effects	-	-	-
Industry - Short term - Systemic effects	-	-	-
Consumer. - Long Term - Local effects	-	-	-
Consumer. - Long Term - Systemic effects	5 mg/kg bw/day	23 mg/m³	5 mg/kg bw/day
Consumer. - Short term - Local effects	-	-	-
Consumer. - Short term - Systemic effects	-	-	-

Environment	PNEC
Aquatic Compartment (including sediment)	Fresh water : 10 mg/l , Marine water : 1 mg/l , Micro-organisms (sewage treatment plant) : 0.2 mg/l , Sediment : Not determined.
Terrestrial Compartment	Not determined
Atmospheric Compartment	Not determined

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation where operational procedures demand it.
Use appropriate containment to avoid environmental contamination.

Personal Protection

Eye/face protection

If splashes are likely to occur : wear eye/face protection.

Skin protection

Good working practice suggests gloves and goggles should be worn. The following materials are suitable for protective gloves (permeation time \geq 8 hours): Nitrile rubber (0.35 mm), Butyl rubber (0.5 mm), Poly(vinyl chloride) PVC (0.5 mm), Fluorocarbon rubber (0.4 mm),
Check with protective equipment manufacturer's data.

Unsuitable gloves materials : Natural rubber , Polychloroprene

Respiratory protection

Wear suitable respiratory protective equipment if exposure to high levels of material are likely. A suitable mask with filter type A may be appropriate. Check with protective equipment manufacturer's data.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	liquid
Colour	Pale yellow /Green
Odour	mild
Initial boiling point and boiling range (°C)	354°C
Melting point/freezing point (Deg C)	6.3°C
Flash point (°C) (COC)	173°C [Closed cup] 185°C (COC) [Open cup]
Evaporation rate	Not known.
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not known.
Vapour Pressure (Pascals)	420Pa @ 25°C
Vapour density	Not known
Density (g/ml)	0.89g/ml @ 20°C
Relative density	not known
Solubility (Water)	<0.023mg/l The substance is essentially insoluble in water.
Partition coefficient: n-octanol/water	>6.2 @ 25°C
Auto-ignition temperature (°C)	261°C
Decomposition Temperature (°C)	Not known
Viscosity	6.1mPa·s @ 20°C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
Molecular weight	296
Pour Point (°C)	<5

9.2 Other information

None

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Non-reactive

10.2 Chemical Stability

Stable at ambient temperatures.

10.3 Possibility of hazardous reactions

Keep away from strong oxidizing agents.

10.4 Conditions to avoid

Avoid ingress of moisture by keeping containers properly sealed when not in use.

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous Decomposition Product(s)
Thermal decomposition will evolve irritant vapours. See Section: 5

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Test result / data

Acute oral toxicity	LD50 (rat) : >5000mg/kg bw
Acute inhalation toxicity	No data available
Acute dermal toxicity	LD50 (rat) : >2000mg/kg bw
Skin irritation.	Not classified . Repeated or prolonged skin contact may result in mild irritation.
Serious eye damage/irritation	Not classified. May cause eye irritation.
Respiratory irritation	Not classified
Germ cell mutagenicity	The material did not induce mutagenicity in in-vitro or in-vivo studies
Carcinogenicity	Unlikely to be carcinogenic
Reproductive toxicity	No developmental or reproductive effects have been observed in relevant studies
Specific target organ toxicity — single exposure (STOT SE)	Not classified
Specific target organ toxicity — repeated exposure (STOT RE)	NOAEL (rat) 28days : >1000mg/kg bw/day
Aspiration hazard	Not classified
Respiratory irritation	High concentrations of mist may be slightly irritant to the upper respiratory tract. Thermal decomposition will evolve irritant vapours.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The substance showed no toxicity to aquatic organisms at the solubility limit.

Toxicity - Aquatic invertebrates	EC50 (Daphnia magna) (48 hour) : 2504mg/l
Toxicity - Fish	LC50 (Various species) (96 hour) : >100000mg/l
Toxicity - Algae	EC50 (Various species) (72 hour) : 73729mg/l
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

12.2 Persistence and degradability

Readily biodegradable.

12.3 Bioaccumulative potential

The product has low potential for bioaccumulation.

12.4 Mobility in soil

The product is predicted to have low mobility in soil. The substance is predicted to have low mobility in sediment.

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Other adverse effects

None known.

13. SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Do not discharge into drains or the environment, dispose to an authorized waste collection point.

13.2 Additional information

Disposal should be in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

Not Classified as Dangerous for Transport.

15. SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Not Classified as Dangerous for Supply/Use.

National regulations : Germany : Wassergefährdungsklasse (WGK) Kenn-Numm : 834 WGK class 1 (official)

15.2 Chemical Safety Assessment

A Chemical Safety Assessment (CSA) has been completed for this substance.

16. SECTION 16: OTHER INFORMATION

Indication of changes: None

LEGEND

CAS : Chemical Abstracts Service

CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DNEL : Derived No Effect Level

EC : European Community

EINECS : European Inventory of Existing Commercial Chemical Substances

PBT : Persistent, Bioaccumulative and Toxic

PNEC : Predicted No Effect Concentration

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals

STOT : Specific Target Organ Toxicity

vPvB : very Persistent and very Bioaccumulative

Key literature references

GESTIS - database on hazardous substances

Chemical Safety Report: Fatty acids, C16-18 and C18 unsaturated, methyl esters 24/7/2010

Further information

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