

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

GHS Product Identifier	Boester BCO Range
EC INDEX No.	269-128-4
CAS No.	68178-84-8
Alternative names	Oxidized castor oil, Blown castor oil
REACH Registration No.	01-2119978253-31-0001

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

Industrial use

Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet**Company Identification**

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Southampton
Hampshire SO14 7EB
United Kingdom

Tel: + 44 (0)2380 089083
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E-Mail (competent person)info@boedal.com**1.4 Emergency telephone number**

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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)

2.2 Label elements

None required.

2.3 Other hazards

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

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

Composition: castor oil oxidatively polymerized.
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 15 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. Laxative.
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.
Carbon dioxide, foam and dry powder

Unsuitable Extinguishing Media

Water.

5.2 Special hazards arising from the substance or mixture

Production of a heavy acrid smoke. Drops can cause severe burns.

Prolonged heating at 230 °C can cause decomposition into acrolein and short chain fatty acids. This overheating is to be avoided by cooling in case of fire. FINE HEATED PARTICLES can burn spontaneously. This risk also exists when hot oil is adsorbed on porous material (sawdust, textiles, paper...).

5.3 Advice for fire-fighters

A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

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

Wear appropriate personal protective equipment (see section 8) during cleaning. Avoid contact with eyes and skin. Avoid inhalation. Eliminate all ignition sources.

6.2 Environmental precautions

Prevent the material from entering surface water or sanitary sewer system. Do not discharge directly to a water source. If accidental spillage or washings enter drains or watercourses contact local Environment Agency..

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (sand, earth, kieselguhr, universal binder, vermiculite). Sweep up absorbed substance, place in a solid waste container for later disposal. Residual trace can be wiped away. CAUTION: If absorbed in special oil absorbers, sawdust or clothes, keep in fire-safe place as self-ignition may occur. Therefore, it is advised to only use inert absorbents.

6.4 Reference to other sections

Exposure controls: subsection 8. Waste treatment method: subsection 13.1

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

Provide good ventilation (local exhaust) of the working area, safety showers and eye wash station near the workplace. Avoid release to the environment. Wear personal protective equipment (see section 8). Keep product away from heat, sparks, flame and other sources of ignition. Use earthed equipment. Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Keep in the original container. Keep container tightly closed in a cool, dry, well-ventilated place. Keep product away from heat, sparks, flame and other sources of ignition and out of direct sunlight.

Packaging material: Plastic; carbon steel; aluminium.

7.3 Specific end use(s)

None

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

Regulated occupational exposure limit values: None known

Derived no effect levels (DNEL):

End Use: Workers

Routes of exposure: Inhalation

Potential health effects: Long term Value: 49 mg/m³

Systemic effects

End Use: Workers

Routes of exposure: Skin contact

Potential health effects: Long term Value: 69.4 mg/kg bw/day

Systemic effects

End Use: General Population
 Routes of exposure: Inhalation
 Potential health effects: Long term Value: 14.5 mg/m³
 Systemic effects

End Use: General Population
 Routes of exposure: Skin contact
 Potential health effects: Long term Value: 41.7 mg/kg bw/day
 Systemic effects

End Use: General Population
 Routes of exposure: Ingestion
 Potential health effects: Long term Value: 8.33 mg/kg bw/day
 Systemic effects

Predicted non effect concentrations (PNEC): PNEC STP: 1.55 mg/L
 Assessment factor: 10

8.2 Exposure controls

Appropriate engineering controls: Keep exposure to a minimum.
Environmental exposure controls: Do not discharge directly into the environment.

Personal Protection

Eye/face protection	Safety goggles or full-face shield where splashing is possible.
Hand protection	Chemical-resistant gloves. Suitable material: Neoprene/nitrile rubber/rubber. Breakthrough time: not determined.
Eye protection	Safety goggles or full-face shield where splashing is possible
Skin protection	Protective suit.
Respiratory protection	Due to the extreme low vapour pressure, it is not regarded as needed in any situation.
Hygiene measures	Wash hands and face before breaks and immediately after handling the product. When using, do not eat, drink, or smoke
Further information	Remove and wash contaminated clothing and gloves, including the inside, before re-use.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical

Appearance	liquid
Colour	yellow
Odour	characteristic
Melting Point	< -20°C
Freezing Point	No data available
Boiling Point	≥ 350 °C Decomposes
Flash point (°C)(COC)	172°C Pensky-Martens
Auto ignition temperature	≈ 368 °C
Vapour Pressure at 25°C	< 0.0031 Pa
Density	0.96 – 1 g/ml 25°C
Solubility (Water)	≤ 0.052 mg/l 20°C
Partition coefficient n-octanol/water	Log Pow > 7.28 20°C
Viscosity kinematic	No data available
Viscosity dynamic	≥ 1 Pa·s 20°C
Explosive Properties	Non-explosive
Oxidizing properties	Not oxidizing
Explosive limits	No data available

9.2 Other information

None

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

Not established.

10.4 Conditions to avoid

No flames, no sparks. Eliminate all sources of ignition. Avoid contact with hot surfaces. Avoid formation of vapours

10.5 Incompatible materials

Oxidizing agents. Strong acids and strong bases.

10.6 Hazardous Decomposition Product(s)

Under normal conditions of storage and use, hazardous decomposition products should not be produced

11. SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute toxicity (oral)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	Not classified (Lack of data)

Test result / data

LD50 oral rat	>2000 mg/kg bw
LD50 dermal rat	>2000 mg/kg bw

Skin corrosion/irritation	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	Not classified (Lack of data)
Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)

Test result / data

NOAEL (animal/male, F0/P)	>1000 mg/kg bw
NOAEL (animal/female, F0/P)	>1000 mg/kg bw

STOT-single exposure	Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	Not classified (Based on available data, the classification criteria are not met)

12. SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Hazardous to the aquatic environment, short-term	Not classified (Based on available data, the classification criteria are not met) (acute)
Hazardous to the aquatic environment, long-term	Not classified (Based on available data, the classification criteria are not met) (chronic)
Fish:	LC50 > 198 mg/l (OECD 203)
Daphnia:	EC50 > > 100 mg/l (OECD 202)

12.2 Persistence and degradability

Readily biodegradable (OECD 301F).

12.3 Bio-accumulative potential

Partition coefficient n-octanol/water (Log Pow)	> 7.28 20°C
Bioaccumulative potential	Not established.

12.4 Mobility in soil

No additional information available.

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

No additional information available.

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

In accordance with local and national regulations. Disposed by landfill or incineration in a suitable incineration plant holding a permit delivered by the competent authorities. Do not allow material to contaminate ground water system. Do not contaminate surface water.

13.2 Additional information

Containers should be cleaned by appropriate method and then re-used or disposed by landfill or incineration as appropriate, in accordance with local and national regulations. Do not remove label until container is thoroughly cleaned.

14. SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / RID / IMDG / IATA / AND
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****15.1.1 EU-Regulations**

No REACH Annex XVII restrictions

Blown Castor Oil is not on the REACH Candidate List

Blown Castor Oil is not on the REACH Annex XIV List

Blown Castor Oil is not 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.

Blown Castor Oil is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Listed on ELINCS (European List of Notified Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Germany

Water hazard class (WGK) : WGK awg, Hazardous to water in general

15.2 Chemical Safety Assessment

A Chemical Safety Assessment (CSA) has not been completed for this substance.

16. SECTION 16: OTHER INFORMATION

Indication of changes

None

LEGEND

DMEL	Derived Minimal Effect level
COD	Chemical oxygen demand (COD)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
BOD	Biochemical oxygen demand (BOD)
BLV	Biological limit value
BCF	Bioconcentration factor
ATE	Acute Toxicity Estimate
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
N.O.S.	Not Otherwise Specified
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet

STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Further information

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