SAFETY DATA SHEET
BARTOLINE - Boiled Linseed Oil

According to Regulation (EC) No 1907/2006 Annex II as amended by Regulation (EU) 2015/830.

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

1.1. Product identifier

Product name	BARTOLINE - Boiled Linseed Oil
Chemical name	Oxidation products of seed oil obtained from Linum usitatissimum, Linaceae (linseed)
Synonyms; trade names	LINSEED OIL, OXIDISED; DOUBLE BOILED LINSEED OIL; BLOWN LINSEED OIL
REACH registration number	01-2119484875-20-XXXX
CAS number	68649-95-6
EC number	272-038-8

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

Identified uses	A liquid intended as a coating for timber substrates which replaces natural oils.
Uses advised against	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier	Bartoline Limited Barmston Close Beverley East Yorkshire HU17 0LW 01482 678710 info@bartoline.co.uk
Contact person	Product Compliance Manager

1.4. Emergency telephone number

Emergency telephone	01482 678710 (8.30am - 4.45pm Monday to Friday) or NHS 111 (General Public) (24 Hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified

Human health	Spills of the oil may constitute a slip hazard.
Physicochemical	Rags soaked in oil may spontaneously ignite (see section 6).

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2.2. Label elements

EC number 272-038-8

Authorisation number ⍰60⍰

Hazard statements NC Not Classified

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name BARTOLINE - Boiled Linseed Oil

Chemical name Oxidation products of seed oil obtained from Linum usitatissimum, Linaceae (linseed)

REACH registration number 01-2119484875-20-XXXX

CAS number 68649-95-6

EC number 272-038-8

Ingredient notes Non-classified vPvB substance.

Composition comments The data shown are in accordance with the latest EU Legislation. Product of seed oil obtained from Linum usitatissimum, Linaceae (linseed). Boiled Linseed Oils are produced from Linseed Oil using one or more metallic siccatives to give a range of oils with varying colours and drying times. They are traditionally processed by the controlled oxidation of raw linseed oil. The metallic siccative acts to accelerate the drying process by catalytic means.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information First aid personnel should wear appropriate protective equipment during any rescue.

Inhalation Move affected person to fresh air at once. Get medical attention if any discomfort continues. Unlikely route of exposure as the product does not contain volatile substances.

Ingestion NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

Eye contact Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

Protection of first aiders No specific requirements are anticipated under normal conditions of use.

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

General information The product is considered to be a low hazard under normal conditions of use.

Inhalation No specific symptoms known.

Ingestion May cause discomfort if swallowed.

Skin contact There may be mild irritation at the site of contact.

Eye contact May cause temporary eye irritation.

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

Specific treatments Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog. Use water spray to cool surfaces exposed to fire and protect personnel.

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 No specific firefighting precautions applicable when small quantities are involved in the fire.

Hazardous combustion products Dangerous combustion products include smoke and oxides of carbon.

5.3. Advice for firefighters

Special protective equipment for firefighters Keep up-wind to avoid fumes. Ventilate closed spaces before entering them. Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Use water SPRAY only to cool containers! Do not put water on leaked material. Keep run-off water out of sewers and water sources. Dike for water control. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. There is a danger that cloths or rags used to clean up a spill, or even any absorbent material may spontaneously combust. Any cloths should be washed in warm soapy water and be disposed of without crumpling. Absorbents should be sprayed with water prior to disposal.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if safe to do so. Absorb in vermiculite, dry sand or earth and place into containers. Do not contaminate water sources or sewer. Clean contaminated area with oil-removing material. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container.

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 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. Contaminated rags and cloths must be put in fireproof containers for disposal. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

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7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Avoid contact with oxidising agents. Store in closed original container at temperatures between 8°C and 28°C.

Storage class Unspecified storage.

7.3. Specific end use(s)

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

Usage description Product can be applied with brush or by cloth, all application materials should be washed in warm soapy water and disposed of without crumpling.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

According to the Suppiers MSDS this substance has no occupational exposure limit values.

DNEL Data taken from the ECHA REACH Registration Portal.
Workers - Inhalation; Long term systemic effects: 49 mg/m³
Workers - Dermal; Long term systemic effects: 69.4 mg/kg bw/day
General population - Inhalation; Long term systemic effects: 14.5 mg/m³
General population - Dermal; Long term systemic effects: 41.7 mg/kg bw/day
General population - Oral; Long term systemic effects: 8.33 mg/kg bw/day

DMEL Data taken from the ECHA REACH Registration Portal.
Workers - Inhalation; Long term systemic effects: 881.6 mg/m³
Workers - Dermal; Long term systemic effects: 5000 mg/kg bw/day
General population - Inhalation; Long term systemic effects: 434.8 mg/m³
General population - Dermal; Long term systemic effects: 5000 mg/kg bw/day

PNEC Data taken from the ECHA REACH Registration Portal.
Industry - STP; Long term 1.55 mg/l
Industry - Hazard for predators; Long term 66.7 mg/kg food

8.2. Exposure controls

Appropriate engineering controls Provide adequate ventilation.

Eye/face protection Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Chemical splash goggles or face shield.

Hand protection Wear protective gloves made of the following material: Nitrile rubber.

Other skin and body protection Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

Respiratory protection No specific requirements are anticipated under normal conditions of use. Respiratory protection may be required if excessive airborne contamination occurs.

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SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Brown.
Odour	Oil-like.
Odour threshold	Not available.
pH	Not available.
Melting point	-49 to -4°C
Initial boiling point and range	>200°C @ 101.3 kPa
Flash point	163°C Pensky-Martens closed cup.
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not available.
Other flammability	REACH dossier information. Blown linseed oil is considered 'not highly flammable' in contact with water.
Vapour pressure	<0.0000000133 Pa @ 20°C
Relative density	0.939 @ 20°C
Bulk density	0.939 g/cm3
Solubility(ies)	Insoluble in water. Soluble in the following materials: Aromatic solvents. Hydrocarbons. Organic solvents.
Partition coefficient	Pow: > 1 x 10^6 log Pow: > 6
Auto-ignition temperature	420°C
Viscosity	85 mPa s @ 20°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	This product is not considered oxidising based on chemical structure considerations.

9.2. Other information

Volatile organic compound	There are no VOCs present.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	See section 6 for auto-ignition hazard of oil soaked rags/absorbents.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures. Possibility of discolouring with increasing temperature.

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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Although the oil itself is not classified as hazardous, every attention must be drawn to the danger of spontaneous combustion. DANGER OF SPONTANEOUS COMBUSTION. AFTER USE, ANY CLOTHS OR RAGS SHOULD BE WASHED IN WARM SOAPY WATER TO REMOVE THE OIL. EVEN AFTER WASHING THE RAGS MUST NEVER BE CRUMPLED INTO A BALL BUT SPREAD OUT AND DISPOSED OF. USE SYNTHETIC FIBRE CLOTHS WHERE POSSIBLE AS NATURAL FIBRES, ESPECIALLY COTTON, INCREASE THE CHANCES OF SPONTANEOUS COMBUSTION.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Concentrated acids, alkalis and oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products In case of fire irritating fumes and smoke will be evolved.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 4,986.0

Species Rat

ATE oral (mg/kg) 4,986.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg) 2,000.1

Species Rat

ATE dermal (mg/kg) 2,000.1

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 20.1

Skin corrosion/irritation

Skin corrosion/irritation The positive and negative controls were within the historical control data. Skin corrosion is expressed as the remaining cell viability after exposure to the test substance. The relative mean tissue viability obtained after 3-minute and 1-hour treatments with Blown linseed oil compared to the negative control tissues was 97% and 102%, respectively. Because the mean relative tissue viability for Blown linseed oil was not below 50% after the 3-minute treatment and not below 15% after the 1-hour treatment Blown linseed oil is considered to be not corrosive. Finally, it is concluded that this test is valid and that Blown linseed oil is not corrosive in the in vitro skin corrosion test under the experimental conditions described in the report.

Animal data Not available.

Human skin model test Not available.

Extreme pH Not available.

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Serious eye damage/irritation

Serious eye damage/irritation The negative control responses of the opacity and permeability values were less than the upper limits of the laboratory historical range indicating that the negative control did not induce irritancy on the corneas. The mean in vitro irritancy score of the positive control (10% (w/v) Benzalkonium Chloride) was 136 and was within the historical positive control data range. Blown linseed oil did not induce ocular irritation through both endpoints, resulting in a mean in vitro irritancy score of 0 after 240 minutes of treatment. Finally, it is concluded that this test is valid and that Blown linseed oil is not irritant in the Bovine Corneal Opacity and Permeability test under the experimental conditions described in the report.

Respiratory sensitisation

Respiratory sensitisation Not available.

Skin sensitisation

Skin sensitisation REACH dossier information. Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro The positive and negative controls were within the historical control data. Blown linseed oil did not induce a statistically significant or biologically relevant increase in the number of cells with chromosome aberrations in the absence and presence of S9-mix, in either of the two independently repeated experiments. Finally, it is concluded that this test is valid and that Blown linseed oil is not clastogenic in human lymphocytes under the experimental conditions described in the report.

Genotoxicity - in vivo Not available.

Carcinogenicity

Carcinogenicity Not available.

Reproductive toxicity

Reproductive toxicity - fertility No reproduction/developmental toxicity was observed at any dose level. NOAEL (reproduction) and NOAEL (developmental): >1000 mg/kg/day.

Reproductive toxicity - development No reproduction/developmental toxicity was observed at any dose level. NOAEL (reproduction) and NOAEL (developmental): >1000 mg/kg/day.

Specific target organ toxicity - single exposure

STOT - single exposure Not available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not available.

Aspiration hazard

Aspiration hazard Not available.

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish LC_{50}, 96 hours: 198 mg/l, Danio rerio (Zebra Fish)
Fish acute toxicity test in Brachydanio rerio according to OECD 203: LC50 in excess of the solubility limit (hence in excess of about 1 mg/L); LC50 for exposure to dispersed test material 198 mg/L (no analytical verification of test substance concentrations).

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Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >32.4 mg/l, Daphnia magna Study according to OECD 202 (1984): static test, EC50 >32.4 mg/L, determined with inhomogeneous test solutions, concentrations not confirmed by chemical analysis, immobility probably due to physical effects.
Acute toxicity - aquatic plants	EbC50, 96 hours: 13 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC_{50}, : 25000 mg/l, Pseudomonas putida No data on the duration, the guideline prescribes a period of 30 min to 3 hours.
Acute toxicity - terrestrial	Toxicity to soil macroorganisms except arthropods. Linseed oil, oxidized is considered to be readily biodegradable. The substance has potential to adsorb to the soil (Log Koc >4.96). However toxicity towards soil organisms is expected to be very low based on the chemical composition of the substance and its low toxicity towards aquatic organisms. To investigate the toxicity to soil organisms, a long-term toxicity test towards 1 soil organism (earthworms) is proposed in accordance with the Integrated testing strategy (ITS) for Effects on Terrestrial Organisms as set out in the ECHA Guidance R.7b. The test will be performed according to OECD TG 222.

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates	Not available.

12.2. Persistence and degradability

Phototransformation	Not available.
Stability (hydrolysis)	Not available.
Biodegradation	Water - Degradation 76: 29 days Blown linseed oil was readily biodegradable under the conditions of the modified Sturm test performed.
Biological oxygen demand	Not available.
Chemical oxygen demand	Not available.

12.3. Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	Pow: > 1 x 10^6 log Pow: > 6

12.4. Mobility in soil

Mobility	The product is insoluble in water and will spread on the water surface.
Adsorption/desorption coefficient	Water - Log Koc: > 4.96 @ 20°F As Blown linseed oil is a hydrophobic compound the calculation used the QSAR for predominantly hydrophobics given in Technical Guidance document.
Henry's law constant	Not known.
Surface tension	Not available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Other adverse effects	Not relevant.

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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. Rags and the like, moistened with flammable liquids, must be discarded into designated fireproof bucket.

Disposal methods Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical. Waste liquid components should be suitable for incineration at an approved facility.

Waste class Waste liquid can be classified as organic waste with the European waste code 16 03 05. Waste absorbents and wiping cloths contaminated with linseed oil should be classed as waste code 15 02 03.

SECTION 14: Transport information

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

Road transport notes Not regulated.

Rail transport notes Not regulated.

Sea transport notes Not regulated.

Air transport notes Not regulated.

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

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Always transport in closed containers that are upright and secure.

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

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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).
Control of Substances Hazardous to Health Regulations 2002 (as amended).
EH40/2005 Workplace exposure limits.
Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
Users of this product are reminded of their duties under the current Control of Substances Hazardous to Health Regulations and a suitable and sufficient assessment of all the risk should be undertaken before using this product. The guidelines given in the HSE publication COSHH ESSENTIALS - Easy Steps To Control Chemicals gives sound advice for deciding safe working control measures.

EU legislation

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).
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).

Guidance

Workplace Exposure Limits EH40.

Health and environmental listings

None of the ingredients are listed.

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are known for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information

Linseed oil is frequently bottled for general DIY applications. Although the oil itself is not classified as hazardous, every attention must be drawn to the danger of spontaneous combustion and a high profile warning is essential. The following warning is recommended: DANGER OF SPONTANEOUS COMBUSTION. AFTER USE, ANY CLOTHS OR RAGS SHOULD BE WASHED IN WARM SOAPY WATER TO REMOVE THE OIL. EVEN AFTER WASHING THE RAGS MUST NEVER BE CRUMPLED INTO A BALL BUT SPREAD OUT AND DISPOSED OF. USE SYNTHETIC FIBRE CLOTHS WHERE POSSIBLE AS NATURAL FIBRES, ESPECIALLY COTTON, INCREASE THE CHANCES OF SPONTANEOUS COMBUSTION. BRUSHES AND ROLLERS SHOULD BE CLEANED WITH WHITE SPIRIT AND THEN WASHED IN WARM SOAPY WATER.

Training advice

The information on directions for use can be found on the product label. It is important to ensure that anyone using this product in the workplace has been adequately trained and in particular: The use of personal protective equipment, methods of cleaning up and disposal of waste. The basic first aid arrangements.

Revision comments

DUE TO CHANGE OF CLASSIFICATION DATABASE THE REVISION NUMBERING HAS BEEN RESET. You should therefore look at the revision date rather than the revision number to ensure you have the most up to date version.

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Issued by	Product Compliance Assistant
Revision date	23/11/2018
Revision	2
Supersedes date	08/12/2015
SDS number	4832
SDS status	Approved.

The information contained in this data sheet is provided in accordance with the requirements of the Regulation (EC) No 1907/2006 Annex II as amended by Regulation (EU) 2015/830 and Regulation (EC) No 1272/2008 (CLP). The product should not be used for purposes other than those shown in Section 1.2. As the specific conditions of use are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet is based on the present knowledge and the current EU and UK Legislation. It provides guidance on health, safety and environmental aspects of the product and should not be taken as a product specification.