Arc Boiled Linseed Oil

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 27/09/2023 Version: 1.0

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

1.1. Product identifier

Product name	:	Arc Boiled Linseed Oil
Substance name	:	Linseed oil, oxidized
EC-No.	:	272-038-8
CAS-No.	:	68649-95-6
REACH registration No	:	01-2119484875-20-XXXX
Product code	:	DOIL003

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

1.2.1. Relevant identified uses

Use of the substance/mixture : A liquid intended as a coating for timber substrates which replaces natural oils.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier
Arc Building Products
IDA Business & Technology Park
Ballynattin
Arklow
Co. Wicklow
Ireland
+353 (0)402 32370
sales@arcbuildingproducts.ie

1.4. Emergency telephone number

Emergency number : +353(0)402 32370
Office hours only)
NHS 111 - General Public (24 Hour service)

Country	Organisation/Company	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)

Also, in the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read carefully and follow all instructions.

Extra Labelling Phrase : EU/VOC content limits for this product (CatA/e) is 700 g/L respectively. This product contains max 0 g/L VOC.
To avoid the risk of spillage always ensure that the cap is secure and the container is held upright during transportation & storage.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Unknown Or Variable Composition, Complex Reaction Products Or Of Biological Materials (UVCB)

Name	Product identifier	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Linseed oil, oxidized	CAS-No.: 68649-95-6 EC-No.: 272-038-8 EU REACH Registration-No.: 01-2119484875-20-XXXX	Not Classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Non hazardous mixture.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Take off contaminated clothing. Wash immediately with plenty of soap and water. Get medical advice/attention if you feel unwell.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention if symptoms are severe or persist after washing.

First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink. Get medical advice/attention if you feel unwell.

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

Symptoms/effects : Under normal conditions of use, no adverse effects to health have been observed.

Symptoms/effects after inhalation : None known.

Symptoms/effects after skin contact : May cause slight irritation to the skin.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : May cause discomfort.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Dry chemical, CO2, powder and foam. Do not use water.
Unsuitable extinguishing media	:	Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be placed in a closed metal container soaked with water.
Hazardous decomposition products in case of fire	:	Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

5.3. Advice for firefighters

Precautionary measures fire	:	Avoid breathing (dust, vapor, mist, gas).
Firefighting instructions	:	Cool down the containers/equipment exposed to heat with a water spray. Ensure that there is no direct contact between the water and the product. Move containers away from the fire area if this can be done without risk.
Protection during firefighting	:	Wear fire/flame resistant/retardant clothing. In confined space use self-contained breathing apparatus. Full face piece respirator.
Other information	:	Keep run-off water out of sewers and water sources. Containers close to fire should be removed or cooled with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be placed in a closed metal container soaked with water.

6.1.1. For non-emergency personnel

Protective equipment	:	See section 8 of the SDS for more information on personal protective equipment.
Measures in case of dust release	:	Not applicable.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	For further information refer to section 8: "Exposure controls/personal protection". More detailed information: See section 11. For disposal of residues refer to section 13 : Disposal considerations" ".

6.2. Environmental precautions

Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Do not discharge into drains or the environment. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

For containment	:	Stop leak if safe to do so. Prevent entry to sewers and public waters.
Methods for cleaning up	:	Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be placed in a closed metal container soaked with water.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Store in a closed container. Avoid excessive heat for prolonged periods of time. High temperature, heat, sparks, flames and other sources of ignition.

Incompatible products : Acids. alkalis. Oxidizing agent.

Storage temperature : 8 – 28 °C

7.3. Specific end use(s)

A liquid intended as a coating for timber substrates which replaces natural oils. (see Section 1.2). 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

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Linseed oil, oxidized (68649-95-6)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	69.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	49 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	8.33 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.5 mg/m³
Long-term - systemic effects, dermal	41.7 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.01 mg/l
PNEC aqua (marine water)	0.001 mg/l
PNEC aqua (intermittent, freshwater)	0.1 mg/l

Linseed oil, oxidized (68649-95-6)	
PNEC (Soil)	
PNEC soil	21.7 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	66.7 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	1.55 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Provide adequate ventilation.

8.2.2. Personal protection equipment

Personal protective equipment:
Do not attempt to take action without suitable protective equipment. Appropriate engineering controls.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or safety glasses

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
Use splash goggles when eye contact due to splashing is possible	Droplet	With side shields	EN 166

8.2.2.2. Skin protection

Hand protection:
Nitrile-rubber protective gloves

Other skin protection

Materials for protective clothing:
Wear suitable protective clothing

8.2.2.3. Respiratory protection

Respiratory protection:
No respiratory protection needed under normal use conditions

8.2.2.4. Thermal hazards

Thermal hazard protection:
Not applicable.

8.2.3. Environmental 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	:	brown.
Appearance	:	Coloured liquid.
Odour	:	Oil like.
Odour threshold	:	Not available.
Melting point/Freezing Point	:	-49 - -4 °C (EU Method A.1 (Melting / Freezing Temperature))
Boiling point	:	> 200 °C @101.3 kPa
Flammability	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	163 °C (ISO 2719 (Determination of flash point - Pensky-Martens closed cup method))
Auto-ignition temperature	:	420 °C
Decomposition temperature	:	Not available
pH	:	Not available.
Viscosity, kinematic	:	90.522 mm²/s
Viscosity, dynamic	:	85 mPa.s @ 20 °C (OECD Test Guideline 114 (Viscosity of Liquids))
Solubility	:	< 1 mg/L in water OECD Guideline 105 (Water Solubility). Soluble in hydrocarbons. Soluble in organic solvents.
Partition coefficient n-octanol/water (Log Kow)	:	Pow: > 1 x 10^6 log Pow: > 6 (OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Vapour pressure	:	< 0.000000013 @ 20 °C (OECD Guideline 104 (Vapour Pressure Curve))
Vapour pressure at 50 °C	:	Not available
Density	:	0.939 g/cm³ @ 20 °C
Relative density	:	0.939 @ 20 °C (OECD Guideline 109 (Density of Liquids and Solids)
Relative vapour density at 20 °C	:	Not available
Particle characteristics	:	Not applicable
Explosive properties	:	Not considered explosive based on chemical structure and oxygen balance considerations.
Oxidising properties	:	Not considered oxidising based on chemical structure considerations.
Evaporation Rate	:	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content	:	There are no VOCs present.
Bulk density	:	0.939 g/cm³

SECTION 10: Stability and reactivity

10.1. Reactivity

Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be placed in a closed metal container soaked with water.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be placed in a closed metal container soaked with water.

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time. High temperature, heat, sparks, flames and other sources of ignition. Direct sunlight.

10.5. Incompatible materials

Acids. alkalis. Oxidizing agent.

10.6. Hazardous decomposition products

Produces a complex mixture of (irritating) fumes during combustion. CO, CO2, Acrolein.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Based on available data, the classification criteria are not met.
Acute toxicity (dermal) : Based on available data, the classification criteria are not met.
Acute toxicity (inhalation) : Data Lacking

Linseed oil, oxidized (68649-95-6)	
LD50 oral	> 4750 mg/kg bodyweight Animal: rat , Guideline: OECD 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity),

Skin corrosion/irritation : Based on available data, the classification criteria are not met.
pH: Not available.

Linseed oil, oxidized (68649-95-6)
Not Corrosive (based on mean relative tissue viability being ≥ 50% after 3 minute exposure and ≥ 15% after 60 minute exposure), Method; *in-vitro*, Guideline: OECD Guideline 431 (In Vitro Skin Corrosion: Human Skin Model Test)
Not irritating (based on mean relative tissue viability being ≥ 50% after 3 minute exposure and ≥ 15% after 60 minute exposure), Method; *in-vitro*, Guideline: OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Serious eye damage/irritation : Based on available data, the classification criteria are not met.
pH: Not available.

Linseed oil, oxidized (68649-95-6)
No serious eye damage (based on mean *in vitro* irritancy score of 0 after 240 minutes of treatment), Method; *in-vitro*, Guideline: OECD guideline 437 (Bovine corneal opacity and permeability (BCOP) test method for identifying ocular corrosives and severe irritants)
Not irritating (based on severity from mean scores and no signs of irreversible damage), Animal; rabbit, Guideline: OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitisation : Based on available data, the classification criteria are not met.

Linseed oil, oxidized (68649-95-6)
Not skin sensitizing (based on human evidence – a manufacturer of the substance contacted their company physician and asked their employees about any case of a skin reaction to the substance. Some company physicians even issued detailed questionnaires based on the LLNA result. The conclusion of these investigations is that during decades of manufacturing this substance, at different locations in the EU, not a single case of a skin reaction has been reported, as confirmed in writing by the company physicians).

Germ cell mutagenicity : Data Lacking

Linseed oil, oxidized (68649-95-6)
Negative Result, Method; *in-vitro*, Guideline: OECD Guideline 473 (In Vitro Mammalian Chromosome Aberration Test)
Negative Result, Method; *in-vitro*, Guideline: OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Negative Result, Method; *in-vitro*, Guideline: OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test)
Negative Result, Method; *in-vitro*, Guideline: OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test)
Positive Result, Method; *in-vitro*, Guideline: OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test)
Mixed results in OECD 476, hence to make final conclusion, *in-vivo test should be planned.* Hence OECD Guideline 489 (In vivo Mammalian Alkaline Comet Assay) is planned to occur.

Carcinogenicity : Data Lacking
Reproductive toxicity : Based on available data, the classification criteria are not met.

Linseed oil, oxidized (68649-95-6)	
NOAEL (reproduction) oral & NOAEL (developmental) oral	> 1000 mg/kg/bw/day, Animal: rat, Duration; 90 d; Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure : Based on available data, the classification criteria are not met.

Linseed oil, oxidized (68649-95-6)
No clinical-toxicological symptoms observed, animal: rat , Guideline: OECD 401 (Acute Oral Toxicity)

STOT-repeated exposure : Based on available data, the classification criteria are not met.

Arc Boiled Linseed Oil (68649-95-6)	
NOAEL (reproduction) oral & NOAEL (developmental) oral	> 1000 mg/kg/bw/day, Animal: rat, Duration; 90 d; Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) No adverse health effects seen.

Aspiration hazard : Based on available data, the classification criteria are not met.

Arc Boiled Linseed Oil (68649-95-6)	
Viscosity, kinematic	90.522 mm²/s

11.2. Information on other hazards

11.2.1 Endocrine Disrupting Properties

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

11.2.2 Other Information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Based on available data, the classification criteria are not met.

Hazardous to the aquatic environment, long–term (chronic) : Based on available data, the classification criteria are not met.

Linseed oil, oxidized (68649-95-6)	
LC50 96h - Fish	198 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio), Guideline: OECD Guideline 203

12.2. Persistence and degradability

Linseed oil, oxidized (68649-95-6)	
OECD Guideline 301B, EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test), ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide)	76% degradation (CO_2 evolution) at day 29 (60% degradation reached within 10-day window)
Conclusion	Is readily biodegradable

12.3. Bioaccumulative potential

Log Kow > 6, Bioconcentration factor (BCF): not possible to perform.

12.4. Mobility in soil

Absorption coefficient: Log KOC > 4.96 @ 20ºC ((Q)SAR for predominantly hydrophobics given in the TGD)

12.5. Results of PBT and vPvB assessment

Linseed oil, oxidized (68649-95-6)
This UVCB does not meet the PBT criteria of REACH regulation, annex XIII
This UVCB does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No endocrine disrupting properties are known as of yet for Linseed oil, oxidized (68649-95-6)

12.7. Other adverse effects

No other adverse effects are known as of yet for Linseed oil, oxidized (68649-95-6).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

This product ***is not*** classified as Hazardous Waste as it is supplied.

Waste generation should be avoided or minimised where possible. When handling waste, the safety precautions applying to handling of the product should be considered. Label the containers containing waste and remove from the area as soon as possible. Label the containers containing waste contaminated material and remove from the area as soon as possible.
Product disposal to sewer should be avoided, if possible, and only be carried out after treatment, and under relevant rules, e.g. Consent to Discharge. Where wastes undergo disposal, external recovery or treatment, it must comply with the requirements of environmental protection, waste disposal legislation and any local authority requirements. If wastes undergo incineration, they must be suitable for it at an approved facility.
Used packaging waste should be reused or recycled, if uncontaminated. Contaminated packaging should be cleaned on site, if appropriate facilities exist, including any relevant rules or permits, or offsite by a specialist provider. Contaminated packaging which cannot be safely cleaned must be treated in the same way as the product, and should only be disposed of as a last resort.

List of waste code is 08 01 12 -waste paint and varnish other than those mentioned in 08 01 11. These codes have been assigned based on the actual composition of the product as supplied. Seek advice from a hazardous/non-hazardous waste specialist for waste classification.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

Inland waterway transport
Not applicable

Rail transport
Not applicable

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

VOC Directive (2004/42)

VOC content : There are no VOCs present.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for this substance.

SECTION 16: Other information

Indication of changes:
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.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.