



# SAFETY DATA SHEET

Revision date: 26 March 2015

Supersedes: 24 Sep. 2012

## Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier	Linseed Oil
REACH registry number	Exempted from registration
CAS number	8001-26-1
EC number	232-278-6
1.2 Relevant identified uses of the substance or mixture and uses advised against	For diluting linseed oil paint or surface treatment of painted or unpainted surfaces. This MSDS is for both raw and boiled linseed oil Sector Use - SU: SU19 Building and construction work SU20 Health services SU21 Private households (= general public = consumers) SU22 Professional uses: Public domain Chemical Product Category: PC9a Coatings and paints Process categories [PROC]: PROC10 Roller application or brushing Environmental Release Categories: ERC 8C Wide dispersive indoor use resulting in inclusion into or onto a matrix (paint) ERC 8F Wide dispersive outdoor use resulting in inclusion into or onto a matrix (paint)
1.3 Details of the supplier of the safety data sheet	
Supplier/Importer EU	Allbäck Linoljeprodukter AB
Address	Östra Balkåkravägen 18 SE-271 91 Ystad Sweden
Telephone number	+46-411-602 02
Contact person	Sonja Allbäck
e-post	allback@allbackpaint.com
1.4 Emergency telephone number	24 hours service is available at <a href="http://www.nhs.uk">www.nhs.uk</a> Call 112 or 999 if an acute emergency. If less acute call 111.
MSDS issued by	Ann Martens, Ramböll Sverige AB, +46 (0)10-615 54 47

## Section 2: Hazards identification

2.1 Classification of the substance or mixture  
Not classified as hazardous for health or environment.

2.2 Label elements  
No hazard label required.



Other label required according to DSD

"Interior and exterior minimal build woodstains, category f, VOC < 38 g/l. Limit Phase II, from 2010."

EUH210 — 'Safety data sheet available on request'.

### 2.3 Other hazards

Risk for spontaneous combustion if the linseed oil is absorbed by porous organic material (cotton waste or rag). This oxidation, which give rise to heat, can happen even at room temperature, but raised temperature increases the risk.

## Section 3: Composition/information on ingredients

EC-no	CAS-no	Reg-no REACH	Name of component	Conc. wt/wt	Classification	Com.
232-278-66	8001-26-1	See section 16	Linseed oil	100 %	-	-
240-085-3	15956-58-8	Not known	2-Ethylhexanoic acid, manganese salt (only in boiled linseed oil)	0,07 mg/litre paint	CLP: Eye Irrit. 2 H319, Repr. 2 H361 (Oral) (H361d), STOT RE 2 H373 (neurological effects) (Inhalation) H373 Aquatic Chronic 2 H411 DSD: Xi; R36 - Xn; R48/20/22 -R63 - N; R51/53	
<p>Explanation of abbreviations:  CAS-nr. = Chemical Abstracts Service; EU-nr (Einecs- or Elincs number) = European Inventory of Existing Commercial Chemical Substances or European List of Notified Chemical Substances, DSD = Dangerous Substance Directive. CLP = Regulation Classification and Labelling of Packages.  Content specified as: %, %wt/wt, %vol/wt, %vol/vol, mg/m<sup>3</sup>, ppb, ppm, wt%, vol%.  WEL = The product have a workplace exposure limit, PBT = The product is declared since it's a PBT- or a vPvB-substance.</p>						

### Comments:

Linseed oil contains mainly natural triglycerides from oleic, linoleic, palmitic acid, linolenic acid and stearic acid. CAS 8554-56-3 is also possible for the product.

For risk phrases in plain text, see section 16.



## Section 4: First aid measures

4.1 Description of first aid measures	
Inhalation	Not relevant, except when spraying the product. If irritation occurs, move to fresh air and rest.
Skin contact	Wash the skin with water and linseed soap.
Eye contact	Remove contact lenses. Rinse the eyes for a couple of minutes. If symptoms persist, seek a physician.
Ingestion	Drink copious amounts of milk. The product is a laxative in large amounts, but no risk for intoxication.
4.2 Most important symptoms and effects, both acute and delayed	
Inhalation	May cause some transient irritation to the respiratory tract.
Skin contact	Has no effect on skin.
Eye contact	Can give transient mild irritation.
Ingestion	Laxative.
4.3. Indication of any immediate medical attention and special treatment needed	Access to water for rinsing eyes at the working place.

## Section 5: Firefighting measures

5.1 Extinguishing media a. Recommended Extinguishing media b. Not Recommended Extinguishing media	a. Extinguish with foam, carbon dioxide, powder or water spray depending on what is burning b. Foam containing substances that are harmful for the environment.
5.2 Special hazards arising from the substance or mixture	Risk for spontaneous combustion if the linseed oil is absorbed by porous organic material (cotton waste or rag). This oxidation, which give rise to heat.
5.3 Advise for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.

## Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	
6.1.1. For non-emergency personnel	For personal protection equipment see section 8. Wash skin or contaminated clothes with water.
6.1.2 For emergency responders	Wash with water.
6.2 Environment precautions	Prevent discharge to the sewage system.
6.3 Methods and material for containment and cleaning up 6.3.1. Surrounding embankment /sealing	Make embankments with sand or other inert absorbent and collect. Small amounts can be washed away with water. The product is easily biodegradable in nature.

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6.3.2 Recommended cleaning up measures	
6.3.3 Non-recommended measures	
6.4 Reference to other sections	For personal protection see section 8. For disposal of waste, see section 13.

## Section 7: Handling and storage

7.1 Precaution for safe handling	Avoid spills and prevent large quantities of the product to reach sewage system or surface water. Avoid eating, drinking and smoking in the working area. Wash hands after using the product. Remove contaminated clothing before meals.
7.2 Condition for safe storage, including any incompatibilities	Store the product at room temperature. Store out of reach of children and away from food.
7.3 Specific end use(s)	No specific end uses.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

National occupational exposure limits values, EH40, 2005 with updates

No workplace exposure values for lined oil.

PNEC and DNEL/DMEL are not established for linseed oil.

Biological limit values	None
Recommended surveillance procedure	None

### 8.2 Exposure controls

8.2.1 Recommended technical control measures	None
8.2.2 Individual protection measures, e.g. personal protection equipment	
Eye/face protection	None. When spraying the product, use safety goggles.
Skin protection	i) None.
i) Hand protection (material, thickness, breakthrough time)	ii) Normal working clothes. No special protection
ii) Other protection	
Respiratory protection	If spraying the product, use a half mask with particle filter P2.
8.2.3 Environmental exposure control	Avoid large leakage to surface water or sewage system

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties



Appearance/Form /State	Liquid
Odour	Characteristic linseed oil.
pH	8.5-9
Melting point/freezing point	Appr. -19 °C
Initial boiling point and boiling range	Appr. 316 °C
Flash point	206 °C
Evaporation rate	Not determined
Flammability	Not determined
Sel ignition temperature	343 °C
Upper/lower flammability or explosive limits	Not determined
Vapour pressure	Not determined
Vapour density	Not determined
Relative density	0.99 kg/l
Solubility	Linseed oil will only emulsify in water. Low water solubility < 1 g/l. The product is partly soluble in several solvents, but it is not recommended to mix with organic solvents.
Partition coefficient n-octanol/water	Not determined
Decomposition temperature	Not determined
Viscosity	Not determined
Explosive properties	None
Oxidizing properties	None
VOC content	< 38 g/l

## 9.2 Other information

Emission Factor, Volatile organic compounds, TVOC	64 µg/(m <sup>2</sup> xh) after 4 drying time of linseed oil paint (pure linseed oil is not tested), 18 µg/(m <sup>2</sup> xh) after 26 week drying time.
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## Section 10: Stability and reactivity

10.1 Reactivity	The product is not reactive during normal handling and storage conditions.
10.2 Chemical stability	Stable at normal storing conditions
10.3 Possibility of hazardous reactions	None
10.4 Conditions to avoid	Do not store above normal room temperature.
10.5 Incompatible materials	Strong acids, bases and oxidizing agents.
10.6 Hazardous decomposition products	None

## Section 11: Toxicological information

### 11.1 Information on toxicological effects

#### a) Acute toxicity

Short term exposure: Linseed oil LD50, rat > 15000 mg/kg body weight.



Ingestion: The product is probably a mild laxative and ingestion of small amounts will not give any symptoms.

Inhalation: LC50 /4h) < 20 mg/l (IMO). Not relevant. Only a risk when spraying the product. The product could in this case cause minor irritation to respiratory tracts.

Eye contact: Could cause mild transient irritation if contact with the eyes

Skin contact: Gives no effect on the skin

Long term exposure:

Ingestion: No known effect, but ingestion in low amount will probably not have any adverse effect

Inhalation: If spraying the product mild irritation of respiratory tracts.

Eye contact: Repeated exposure may cause irritation to the eyes, but will probably not give any remaining effect on the eye.

Skin contact: Repeated contact might dry the skin and cause irritation or atopic eczema, but during normal use the risk is low.

b) Skin corrosion/irritation: The product is not corrosive to the skin.

c) Serious eye damage/irritation:

The product will not give serious eye damage or eye irritation.

d) Respiratory or skin sensitisation: The product is not sensitizing. There is no known sensitizing effect of linseed oil, but no data is found.

e) Germ cell mutagenicity: No known effects.

f) Carcinogenicity: No known effects.

g) Reproductive toxicity: No known effects.

h) STOT-single exposure No known effects.

i) STOT-repeated exposures No known effects.

j) Aspiration hazard No known effects.

k) Other information -

## Section 12: Ecological information

### 12.1 Toxicity

Acute toxicity:

Linseed oil has a low toxicity for aquatic organisms. LC50 > 1000 mg/L (DHI report)

Long term toxicity: The product will probably not have any adverse long term effect for the aquatic environment, but data is lacking.

Terrestrial organisms: The product is probably not harmful for terrestrial organisms, but data is lacking.

Plants: The product is probably relatively harmless for plants, but data is lacking.

Effects on micro-organisms living in wastewater treatment plants

The product has no known effect on microorganisms living in wastewater treatment plants.

### 12.2 Persistence and degradability

The product is easily degradable.

### 12.3 Bioaccumulative potential

The product will not bioaccumulate. BCF < 10 (DHI report).

### 12.4 Mobility in soil

The product is water soluble but easily degradable and thus the mobility in soil will not be so high.

### 12.5 Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substance.



12.6 Other adverse effects  
None known.

### Section 13: Disposal consideration

13.1 Waste treatment methods	<p>a) Emptied plastic package are sorted as hard plastic. The packaging material consists of polypropylene. The product could be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.</p> <p>b) There are no physical/chemical properties that may affect the waste treatment solutions.</p> <p>c) Larger residues should not be released to the sewage system. No special security measures concerning waste treatment methods are needed.</p>
Waste codes (EWC)	Depends where the waste is produced, but suitable codes are 07 01 99 or 08 01 17.
The product is classified as hazardous waste	No.
Waste codes (EWC) for the container	A suitable code for the package is 20 01 39.
A not thoroughly cleaned container is considered dangerous waste	No
Other information	See section 8 for personal protection during disposal of waste.

### Section 14: Transport information

General	Not classified as hazardous goods
14.1 UN number	-
14.2 UN Proper Shipping Name	-
14.3 Transport hazard class(es)	-
14.4 Packing group	-
14.5 Environmental hazards	-
14.6 Special precautions for users	-
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	<p>The product is not transported in bulk, but if it will happen in the future this product is listed in Annex II of the Marpol convention.</p> <p>Vegetable oil floating on water is also listed as IMO category 2. Vegetable oils pollution category Y, ship type 2.</p>

### Section 15: Regulatory information

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture  
No relevant.

15.2 Chemical safety assessment



Chemical safety assessment is not made for linseed oil as it is exempted from registration according to REACH.

## Section 16: Other information

This MSDS is changed in the following sections: Section 3: New classification for the manganese salt. New labelling with a EUH statement. Revisions in section 11 and 12.

Hazard and Precautionary statements from section 2 and 3 in plain text (CLP):

Eye Irrit. 2	Serious eye damage/eye irritation, Hazard Category 2
H319	Causes serious eye irritation.
Repr. 2	Reproductive toxicity, Hazard Category 2
H361d	Suspected of damaging fertility or the unborn child (oral).
STOT RE 2	Specific target organ toxicity — Repeated exposure, Hazard Category 2
H373	May cause damage to organs (neurological effects) through prolonged or repeated exposure (Inhalation).
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
H411	Toxic to aquatic life with long lasting effects.

Risk and Safety phrases from section 2 and 3 in plain text DSD 67/548/EEC:

Xi = Irritant

R36 Irritating to eyes.

Xn = Harmful

R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R63 Possible risk of harm to the unborn child.

N = Dangerous for the environment

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

VOC is determined according to ISO 11890-2. The volatile VOC will probably remain in the oil due to cross-binding reactions. This has been shown in emission measurements during painting with linseed oil paint.

Sources for data in this MSDS

- Prevent Database Chemical substances (<http://kemi.prevent.se/>)
- Toxnet, <http://toxnet.nlm.nih.gov/>
- ECHA, Guidance on information requirements and chemical safety assessment: Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system.
- European Commission DG Environment Report October 2008 from DHI. Review of Annex IV of Reg. 1907/2006 Contract No. 070307/2007/473055/MAR/D1 and appendix 2 Evaluation of existing entries, Linseed oil.
- IMO INTERNATIONAL MARITIME ORGANIZATION. BLG WORKING GROUP ON THE EVALUATION OF SAFETY AND POLLUTION HAZARDS OF CHEMICALS. 30 September 2005, Linseed oil (containing less than 4% free fatty acids). Submitted by the United Kingdom.

Other information:

Linseed oil is exempted from registration according to REACH Annex V.





See regulation EC 987/2008.

The safety data sheet is based on the REACH regulation EC 1907/2006 and the regulation EU 453/2010. Classification according to both the CLP regulation EC 1272/2008 and directives 67/548/EEC and 1999/45/EC. Names in section 3 are given either according to harmonised classified substances in Annex VI, CLP regulation EC/1272/2008, IUPAC name or other common used named chosen by the supplier. See article 18 in the CLP regulation.