# SAFETY DATA SHEET

Issue date: 24 Sep. 2012
Supersedes: 10 Feb. 2010

## 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.<br>This MSDS is for both raw and boiled linseed oil<br>Sector Use - SU:<br>SU19 Building and construction work<br>SU20 Health services<br>SU21 Private households (= general public = consumers)<br>SU22 Professional uses: Public domain<br>Chemical Product Category: PC9a Coatings and paints<br>Process categories [PROC]: PROC10 Roller application or brushing<br>Environmental Release Categories:<br>ERC 8C Wide dispersive indoor use resulting in inclusion into or onto a matrix (paint)<br>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<br>SE-271 91 Ystad<br>Sweden |
| Telephone number | +46-411-606 02 |
| Fax | +46-411-602 41 |
| Contact person | Sonja Allbäck |
| e-post | allback@allbackpaint.com |
| 1.4 Emergency telephone number | 24 hours service is available at NHS Direct in UK:<br>Phone 0845 46 47 or call 112 or 999<br>See. www.nhsdirect.nhs.uk |
| MSDS issued by | Ann Martens, Ramböll Sverige AB,<br>+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.

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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.” Eller?

"Safety data sheet for professional users available upon 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

3.1 Substances

3.2 Mixtures

| EC-no | CAS-no | Reg-no REACH | Name of component | Conc. wt/wt | Classification | Com. |
|---|---|---|---|---|---|---|
| 232-278-6 | 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: Skin Irrit 2, H315<br>DSD:<br>Xi; R38 | |

Explanation of abbreviations:
CAS-nr. = Chemical Abstracts Service; EU-nr (Einecs- or Elincsnumber) = 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$^3$, 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.

Comments: Linseed oil contains mainly natural triglycerides from oleic, linoleic, cetylic 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 |

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| | 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

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|---|---|
| 5.1 Extinguishing media<br>a. Recommended Extinguishing media<br>b. Not Recommended Extinguishing media | a. Extinguish with foam, carbon dioxide, powder or water spray depending on what is burning<br>b. Foam containing substances that are harmful for the environment, i.e. Perfluoro octane sulfonate (PFOS) and Nonyl ethoxylate |
| 5.2 Special hazards arising from the substance or mixture | None |
| 5.3 Advise for firefighters | Wear self-contained breathing apparatus for fire fighting 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<br>6.3.1. Surrounding embankment /sealing<br>6.3.2 Recommended cleaning up measures<br>6.3.3 Non-recommended measures | 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. |
| 6.4 Reference to other sections | For personal protection see section 8. For disposal of waste, see section 13. |

## Section 7: Handling and storage

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|---|---|
| 7.1 Precaution for safe handling | Avoid spills and prevent large quantities of the product to reach sewage system or surface water. Avoid eating, |

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| | 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, EH 40, 2005 with updates
No workplace exposure values for lined oil.

PNEC and DNEL/DMEL 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<br>i) Hand protection (material, thickness, breakthrough time)<br>ii) Other protection | i) None.<br>ii) Normal working clothes. No special protection |
| Respiratory protection | If spraying the product, use a half mask with particle filter P2. |
| 8.2.3 Environmental exposure limits | 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 ºC |
| Initial boiling point and boiling range | Appr. 316 ºC |
| Flash point | 206 ºC |
| Evaporation rate | Not determined |
| Flammability | Not determined |
| Sel ignition temperature | 343 ºC |
| Upper/lower flammability or | Not determined |

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| explosive limits | |
| 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/($m^2$xh) after 4 drying time of linseed oil paint (pure linseed oil is not tested), 18 µg/($m^2$xh) after 26 week drying time. |

## Section 10: Stability and reactivity

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|---|---|
| 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

Substances

11.1 Information on toxicological effects

a) Acute toxicity

Short term exposureLinseed 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: 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.

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

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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 i 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 probably low toxicity for aquatic organisms.
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 organism, 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 microorganism living in wastewater treatment plants.

### 12.2 Persistence and degradability
The product is probably easily degradable, but data is lacking.

### 12.3 Bioaccumulative potential
The product will not bioaccumulate.

### 12.4 Mobility in soil
The product is water soluble but probably 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.

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## Section 13: Disposal consideration

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| 13.1 Waste treatment methods | 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.<br>b) There are no physical/chemical properties that may affect the waste treatment solutions.<br>c) Larger residues should not be released to the sewage system. No special security measures concerning waste treatment methods are needed. |
| 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

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|---|---|
| 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 | 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.<br>Vegetable oil floating on water is also listed as IMO category 2. Vegetable oils pollution category Y, ship type 2. |

## 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.

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## Section 16: Other information

This MSDS is changed in the following sections: Section 3: New CAS number and classification for the manganese salt. Skriv att bladet är upprättat utifrån CLP och som en följd finns det ändringar under de flesta avsnitt.

Hazard and Precautionary statements from section 2 and 3 in plain text (CLP):
Skin Irrit 2 = Skin corrosion/irritation, Category 2
H315 Causes skin irritation

Risk and Safety phrases from section 2 and 3 in plain text DSD 67/548/EEC:
Xi = Irritant
R38 Irritating to skin.

VOC is determined according to ISO 11890-2. The volatile VOC will probably remain in the colour 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.

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.

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