SAFETY DATA SHEET

Issue date 10 Feb. 2010
Supersedes 8. Dec. 2009

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name	**Linseed oil paint Zinc oxide**
Use	As enhanced ageing protective agent for linseed oil paint. **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)
Manufacture/responsible import within the EEA	Allbäck Linoljeprodukter AB
Address	Östra Balkåkravägen 18 SE-271 91 Ystad Sweden
Phone	+46-(0)411-606 02
Fax	+46-(0)411- 602 41
e-mail	allback@allbackpaint.com
Contact	Sonja Allbäck
Emergency phone	NHS Direct 0845-4647 NHS 24: 08454 242424 (24 hrs service) Information may also be obtained from www.npis.org The UK National Poisons Information Service 4123 Birmingham
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2. HAZARDS IDENTIFICATION

Classification: N, R5
"Dangerous for the Environment", N;R50/53
Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Most important hazards:
Risk for spontaneous combustion if 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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

EC-no	CAS-no	REACH reg. no.	Components name	Conc.	Classification	Rem-ark
232-278-6	8001-26-1	Exempted from registr.	Linseed oil	35-55%	--	OEL
215-222-5	1314-13-2	Not regist.	Zinc oxide	45-55 %	N;R50/53 **CLP:** Aquatic Acute 1 Aquatic Chronic 1 H400, H410	OEL

Explanation of abbreviations:
CAS-no = Chemical Abstracts Service; EC-no (Einecs- or Elincs number) = European inventory of Existing Commercial Chemical of Substances or European LIst of Notified Chemical Substances.
Content given in either %, %weight/weight, %vol/weight, %vol/vol, mg/m3, ppb, ppm, weight%, vol%.
T+ = Very toxic, T = Toxic, C = Corrosive, Xn = Harmful, Xi = Irritant, E = Explosive, O = Oxidizing, F+ = Extremely flammable, F = Highly flammable, N = Dangerous for the environment, Canc. = Carcinogen, Mut = Mutagen, Rep = Toxic to Reproduction.
OEL = The product has an occupational exposure limit, PBT = The product is a PBT or vPvB substance.

Comments: Substances are declared according to both DSD and the CLP-regulation.
Linseed oil contains mainly natural triglycerides from oleic, linoleic, cetylic acid, linolenic acid and stearic acid.

For risk phrases in full text see section 16.

4. FIRST AID MEASURES

Inhalation	Not relevant, except when spraying the product. Move to fresh air and rest if irritation occurs.
Skin contact	Wash the skin with soap or linseed oil soap and water.
Eye Contact	Remove contact lenses. Rinse the eyes for a couple of minutes. If symptoms persist, seek a physician.
Ingestion	Drink copious amount of milk or water. The product is a laxative in large amounts, but no risk for intoxication.
First aid equipment	Access to water for rinsing eyes at the working place.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Extinguish with foam, carbon dioxide, powder, water spray.
Extinguishing media which must not be used for safety reasons	Water jet.
Fire and explosion hazards	Self extinguishing at 343°C. Avoid smoke from the combustion.
Special protective equipment for fire-fighters	Wear self contained breathing apparatus for fire fighting if necessary.
Other information	Remove combustible material. Cool surfaces and containers exposed to fire with water.
ADR. If fire during transport	Switch of the motor. Keep away ignition sources. Fire extinguisher should be present during transportation.

6. ACCIDENTAL RELEASE MEASURES

Measurements for personal protection	Wash with soap or linseed oil soap and water.
Measurements for environmental protection.	The product will float on water and can be removed mechanically. Prevent discharge in the sewage system.
Methods for cleaning up.	Make embankments with sand, soil or similar and collect. Small amounts could be washed away with water. The product is not hazardous waste and is easily biodegradable in nature.
Not suitable cleaning methods.	If organic fibrous material is used for cleaning it is a fire risk and the material should be soaked in water.
Measurement when accident during transport. ADR	Switch of the motor. Keep away ignition sources. Make embankments as mentioned above.

7. HANDLING AND STORAGE

Handling	Be aware of fire hazard in porous organic materials. Immerse rags in water.
Storage	Store at room temperature. Keep away from children.
Preventing action	None
Specific use	See point 1

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Occupational Exposure Limits, EH40

EU-no	CAS-no	Substance name	OES 8 h	MEL 5 min	OES 15 min	Year
		Oil mist	1 mg/m^3	-	3 mg/m^3	1990 Swedish value
		Oil mist	5 mg/m^3	-	10 mg/m^3 (10 min.)	UK value
215-222-5	1314-13-2	Zinc oxide dust	5 mg/m^3 respirabel dust 10 mg/m^3 total dust	-	10 mg/m^3	UK value

The UK value is only for mineral oil, but the Swedish value is for all kind of oils. It is however wise not to exceed the OES value, even if there is no mineral oil in this product.

Recommended monitoring procedures	None
Technical Measures/ Precautions	Good ventilation during painting. The product demands oxygen when drying and therefore air thoroughly.
Respiratory protection	None when painting. If polishing or grinding dried product a dust mask could be used. If the occupational exposure value is surpassed use half mask

	with particle filter P2 and filter A.
Hand protection Material/Permeation time	None
Eye protection	None
Skin protection	Normal working clothes. No special protection

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/State of aggregation	Liquid
Colour	Light brown
Odour	Linseed
Density	1.3-1.7 kg/l depending on the colour.
Boiling point	349 °C
Melting point	-19 °C
Flash point	222 °C
Auto ignition temperature	343 °C
Oxidizing properties	Oxidizing. Can self ignite in porous materials
Solubility in water	Can only emulsify and is not soluble in water.
Solubility in other solvents	The product is partially soluble in many solvents, but it is not recommended to mix with solvents.
Partition coefficient n-octanol/water	Not determined but probably >3 for the linseed oil in the product. Linseed oil does normally consist of about 18-23 % oleic acid and this has a log Kow 7.7. The other triglycerides in linseed oil are similar.
VOC content	<18 g/l
Emission factor, Total volatile organic compounds, TVOC	64 µg/(m^2xh) after 4 week of drying time for linseed oil paint (pure linseed oil is not tested). 18 µg/(m^2xh) after 26 weeks of drying time for oil paint.

10. STABILITY AND REACTIVITY

Conditions to avoid	Do not store above room temperature and not below 4°C
Material to avoid	Strong acids, bases and oxidizing agents. The product reacts violently with hypochlorite.
Hazardous decomposition products	None
Stability	Stable at normal storage conditions

11. TOXICOLOGICAL INFORMATION

General information: Linseed oil is a common animal nutrition additive and has no known toxicological hazards.
Zinc is an essential metal and the recommended daily intake is approximately 5-19 mg/day (EU RAR). Compared to this intake via food, intake via dust from the product is very negligible. NOAEL for humans is 50 mg Zn^{2+}/day. Zinc oxide imposes low risk at normal use of the product.

Inhalation: Only a risk when spraying the product. The product could cause irritation if occupational exposure limit for oil mist is surpassed. The product consumes oxygen when drying and good ventilation is necessary. If inferior ventilation exists, there is a risk for headache.
Skin contact: Repeated contact might dry out the skin, but during normal use there is no hazard.
Acute toxicity: Linseed oil: >15000 mg/kg body weight.
Ingestion: Linseed oil is a laxative, but single ingestion will not give raise to any hazard.
Sensitization: Not a sensitizer.
Carcinogenic effects: None known effect of the product.
Reproductive toxicity: None known.
Mutagenic effects: None known.

12. ECOLOGICAL INFORMATION

General information:
Very toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

Acute toxicity for aquatic organisms (OECD) for **zinc oxide**, which is the component in the product that give raise to environmental classification.
Fish LC50 96h: 1.1 mg/l Species: Oncorhynchus mykiss
LC50 96h: >320 mg/l Species: Lepomis macrochirus
LC50 96h: 2246 mg/l Species Pimephales promelas
Algae: EC50 72h: 0.17 mg/l Species Selanastrum capricornutum
Daphnia Magna EC50 48h> 1000 mg/l.

Persistency and biodegradation: The linseed oil is easily biodegradable.
Bioaccumulation: The product will not bio accumulate.

13. DISPOSAL CONSIDERATIONS

Waste code EWC	Depends were the waste is produced, but suitable is 20 01 27
The product is hazardous waste	Yes
Package disposal	Well cleaned package can be sorted as metal, but tin with remaining colour should be treated as hazardous waste.
Suitable disposal measurements	Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

14. TRANSPORT INFORMATION

General	Regulated as hazardous goods
Proper Shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (zinc oxide)
UN-number	3082
ADR/RID	
Class	9
Packing group	III
Hazard Id. No	90
Limited quantities	LQ7, E1
Transport category	3 (E)

(Tunnel restriction code)	
IMDG	
Marine pollutant	Ja
Class	9
EmS	F-A, S-F
Packing group	III
ICAO / IATA	
Class	9
Packing group	III

15. REGULATORY INFORMATION

Labelling Symbols:

Dangerous for the environment

R-phrases:
R50/53 Very toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

S-phrases:
S60 This material and/or its container must be disposed of as hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Interior/exterior trim and cladding paints for wood and metal (category d), VOC content < 18 g/l. EC-limit from 2010, 300 g/l.

16. OTHER INFORMATION

This MSDS is changed in the following sections:
MSDS changed in Section 3, 9 and 15.

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. VOC content is declared for the colour with the highest content of linseed oil (white).

R-phrases from section 3:
Zinc oxide
R50/53 Very toxic to aquatic organisms
May cause long-term adverse effects in the aquatic environment
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

Sources for data in this MSDS

- MSDS from supplier of ingredients for this product.
- IUCLID (International Uniform Chemical Information Database) Chemical Data Sheets, Data base European commission
- ESIS (European chemical Substances Information System).
- Prevent, Chemical Substances database, (http://kemi.prevent.se/)
- Riskline database, http://apps.kemi.se/riskline/index.htm
- IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 47, Some Organic Solvents, Resin Monomers and Related Compounds, Pigments and Occupational Exposures in Paint Manufacture and Painting, 13 April 1999.
- EU Risk Assessment Report (RAR) Zinc oxide, Final Report May 2008
- ECHA, Guidance on information requirements and chemical safety assessment: Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system. Draft ver. 2.0, 2009

Other information:

The safety data sheet is based on the REACH regulation 1907/2006/EC and other appropriate directives for classification and labelling like 67/548/EEC and 1999/45/EC. The CLP-regulation EC/1272/2008 is also used for classification in section 3.
Labelling according to the VOC directive 2004/42/EC.