SAFETY DATA SHEET

Revision date: 22 January 2021
Supersedes: 7 September 2015

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

1.1 Product identifier	Primer
1.2 Relevant identified uses of the substance or mixture and uses advised against	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 Public domain Chemical Product Category: PC9: Paint 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	Allbäck Linoljeprodukter AB
Address	Östra Balkåkravägen 18 SE-271 91 Ystad Sweden
Phone	+46-(0)411-602 02
e-mail	allback@allbackpaint.com
Contact	Sonja Allbäck
1.4 Emergency telephone number	24 hours service is available at www.nhs.uk Call 112 or 999 if an acute emergency. If less acute call 111.
Issued by	Ann Martens, Ramboll Sweden AB, +46-(0)10-615 54 47

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Not classified as hazardous for health or environment.
Observe the special classification limit for Borax. See section 3.

2.2 Label elements
No hazard label required.

Other label required according to CLP
Interior/exterior trim varnishes and woodstains, including opaque woodstains.
(category e), VOC content < 0 g/l. EC-limit from 2010, 300 g/l.

EUH210 — 'Safety data sheet available on request'.

2.3 Other hazards

Borax and the free borate ion that will form in water solutions have through animal testing shown the potential to detrimentally effect the fertility and to harm the foetus, subsequently this might lead to impaired reproduction or harm to the unborn child, especially if the skin is dry or damaged or the product is ingested by mistake.

3. COMPOSITION / INFORMATION ON INGREDIENTS

EC-no	CAS-no	REACH reg. no.	Components name	Conc.	Classification	Remark.
215-540-4	1303-96-4	01-2119490790-32-XXXX / Index no. 005-011-01-1	Borax, Disodium tetraborate decahydrate, ($Na_2B_4O_7 \cdot 10H_2O$)	3-4 %	Repr. 1B; H360FD (C ≥ 6,5 %)	OEL
232-549-9	9000-59-3	Exempted from registr.	Shellac	8-12 %	-	-
231-791-2	7732-18-5	-	Water	84-89 %	-	-

Explanation of abbreviations:
CAS-nr. = Chemical Abstracts Service; EU-no (Einecs- or Elincs number) = European Inventory of Existing Commercial Chemical Substances or European LIst of Notified Chemical Substances. Content specified as; %, %wt/wt, %vol/wt, %vol/vol, mg/m^3, ppb, ppm, wt%, vol%.
WEL = The product has a workplace exposure limit, PBT = The product is declared since it's a PBT- or a vPvB-substance.

Comments: Substances classifications are declared according to both DSD (Dangerous Substance Directive) and the CLP-regulation.
Shellac is a natural resin secreted by the lac bug.

For risk phrases in full text see section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures	
Inhalation	The product is difficult to inhale due to the viscosity of the product.
Skin contact	Remove contaminated clothes. 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. Could harm an unborn child or fertility.
4.2 Most important symptoms and effects, both acute and delayed	
Inhalation	Prolonged exposure through inhalation can harm fertility.

Skin contact	Can harm fertility. Prolonged contact can also give irritation on skin.
Eye contact	Can give transient mild irritation.
Ingestion	Could harm an unborn child or fertility.
4.3. Indication of any immediate medical attention and special treatment needed	Access to water for rinsing eyes at the working place. In case of ingestion of the product in small quantities (about 4 grams) of pure borax or about 1 dl of the product only requires observation. Vomiting provocation alternatively, gastric lavage can be done if less 4 hrs. since ingestion and more than 1 dl was ingested. Swallowing of large amounts may arise in renal failure and dialysis may be required. Boron concentration in urine or blood cannot be used as a measure of the degree of exposure of Borax.

5. FIRE-FIGHTING 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	Not relevant. Boron compounds have a flame retardant effect.
5.3 Advise for firefighters	Not relevant.

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 6.3.2 Recommended cleaning up measures 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.

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.

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
215-540-4	1303-96-4	Disodium tetraborate decahydrate	5 mg/m³	-		UK value

PNEC och DNEL/DMEL

Data is from REACH registration of Borax.

CAS-no	Substance name	PNEC (type of environment)	DN(M)EL (route of exposure))	Exposure scenario no./ Remark
1303-96-4	Borax, Disodium tetraborate decahydrate, ($Na_2B_4O_7 \cdot 10 H_2O$)	PNEC (freshwater) 2.9 mg/L PNEC (marine water) 2.9 mg/L PNEC aqua (intermittent release) 13.7 mg/L PNEC STP 10 mg/L PNEC sediment is not relevant as exposure to sediment is not expected. PNEC soil 5.7 mg/kg soil dw	Worker Long term exposure systemic effects DNEL Inhalation 6.7 mg/m³ Long term exposure local effects DNEL Inhalation 11.7 mg/m³ Long term dermal exposure systemic effects 316.4 mg/kg bw/day General polpulation Long term exposure systemic effects DNEL Inhalation 3,4 mg/m³ Oral DNEL 0.79 mg/kg bw/day	OBS DNEL is Higher than the OEL.

Biological limit values	None
Recommended surveillance	None

procedure	

8.2 Exposure controls

8.2.1 Recommended technical control measures	Good ventilation when using the product.
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) Hand protection (material, thickness, breakthrough time) ii) Other protection	i) Use gloves of PVC, Butyl or neoprene. Permeation time probably > 8 hrs. Thin single use gloves could be used for shorter exposure if PVC is chosen. ii) Normal working clothes. No special protection
Respiratory protection	If spraying the product, use a half mask with particle filter P2 and filter B.
8.2.3 Environmental exposure control	Avoid large leakage to surface water or sewage system

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance/State of aggregation	Viscous liquid
Colour	Light brown
Odour	Weak
Density	1 kg/l
Boiling point	100 °C
Melting point	0 °C
Flash point	Not relevant
Auto ignition temperature	Not relevant
Oxidizing properties	Oxidizing. Can self ignite in porous materials
Solubility in water	The Shellac is almost insoluble in water and is only solved in the presence of borax. The water solubility of Borax is appr. 50 g/l.
Solubility in other solvents	The product is partially soluble in many solvents (e.g. ethanol), but it is not recommended to mix with solvents.
Partition coefficient n-octanol/ water	Not relevant for Borax (inorganic compound). Not known for Shellac.
VOC content	0 g/l

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	None

decomposition products	

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
General information:
The product as such is not tested. Shellac has not any known hazards.
Ingestion: Shellac is approved for food use, (cfr. FDA CFR Title 21, Volume 3) where shellac e.g. is approved for coatings on food.
Borax: LD50 (oralt rat) 4000-6000 mg/kg. Long term ingestion of boron products can harm fertility and the unborn child.
Inhalation: Boron compounds are irritating for the respiratory system, but the boron in this product could probably not be inhaled because of the viscous composition of the product.
LC50 (4 h) 2.0 mg/l. Long term inhalation of boron products can harm fertility and the unborn child.
Skin contact: Boron compound have low acute toxicity in skin contact and is poorly absorbed through unharmed skin. Boron compounds are not irritation for the skin.
LD50 (rabbit) 2000 mg/kg
Eye contact: Draize test (rabbit) gives irritation to the eye and subsequently Borax might be classified as eye irritant. However, due to the low concentration of Borax in this product there is little risk of eye irritation imposed by the product.
Sub acute and sub chronic and chronic toxicity: Several chronic studies of boron compounds are reported in the literature. A 90 days study gives a NOAEL of 8.8 mg(Boron)/day kg.
No chronic studies of inhalation or skin contact are reported.
Sensitization: Not a sensitizer.
Carcinogenic effects: None known effect of the product.
Reproductive toxicity: Animal feeding studies in rat, mouse and dog, at high doses, have demonstrated effects on fertility and testes. Studies with the chemically related boric acid in the rat, mouse and rabbit, at high doses, demonstrate developmental effects on the foetus, including foetal weight loss and skeletal variations.
Human epidemiological studies show no reproductive effect on occupational populations with chronic exposures to boric acid dust and sodium borate dust or to high amount of boron in drinking water.
Mutagenic effects: No mutagenic activity was observed for boric acid in a battery of short-term mutagenicity assays.

11.2. Information on other hazards
-

12. ECOLOGICAL INFORMATION

General information: Data below is for Borax or boric acid. Boron is a essential element and is often added for plant nutrition products. However release to the environment should be avoided.
To convert Borax into the equivalent born (B) content, multiply by 0.1134.
Data for the environmental effects of Shellac is lacking.
The product is not classified as dangerous for the environment.

12.1 Toxicity
Acute toxicity:
Boron:
Fish toxicity:

Seawater:
Dab, Limanda limanda
96-hr LC50 74 mg B/L
Fresh water:
Flannelmouth sucker, Catostomas latipinnis
96 hr LC50 125 mg B/L
Zebrafish, Brachydanio rerio
34-day NOEC 5.6 mg B/L (lowest value)
Aquatic Invertebrate toxicity:
Daphnid, *Daphnia magna* (Straus)
48-hour EC_{50} = 133 mg B/L (lowest value)
21-dagar NOEC = 6 mg B/L (lowest chronic value)
21-dagar NOEC = 10.5 mg B/L (geometric mean, 6 tests)
Larval midge, *Chironomus riparius*
28-day NOEC = 180 mg B/L (spiked sediment)
Inhibering aktiverat avloppsslam
LC_{50} = 175 mg B/L (3 tim. Standard Test)
Algae toxicity
Algae *Selenastrum capricornutum*
72 h EC_{50} (biomassa) = 40 mg B/L
72 h NOEC (tillväxthämning) = 17.5 mg B/L

Terrestrial organisms: Earthworm Eisenia andrei
56-63 days NOEC = 54 mg /kg dw jord (mean 4 tests)
Folsomia candida 28 d NOEC < 3.1 mg/kg dw
Plants: Boron:
Short term test (7-10 days) gave IC50 452-1603 mg/kg soil dw for 12 different plant types. Most sensitive species was Phseolus vulgaris with a NOEC 1.6 m7kg dw. A content below 2 mg/kg soil is often considered as plant nutrition.

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
Shellac will probably degrade very slowly. Degradation is not relevant for an inorganic substance like Borax. Borax dissociates to boric acid in the environment

12.3 Bioaccumulative potential
The product will not bioaccumulate.

12.4 Mobility in soil
Borates are water soluble and do not strongly adsorb to soil or sediment. Log Pow = -0.757 at 25° C. Borates should be considered leachable through normal soil

12.5 Results of PBT and vPvB assessment
The product does not contain any PBT or vPvB substance.

12.6. Endocrine disrupting properties
Borax is suspected to has an endocrine disruptor effect.

12.7. Other adverse effects

None known.

13. DISPOSAL CONSIDERATIONS

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. b) There are no physical/chemical properties that may affect the waste treatment solutions. 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 08 01 11, 08 01 13 or 08 01 19.
The product is classified as hazardous waste	Yes
Waste codes (EWC) for the container	A suitable code for the package is 15 01 04, 15 01 07 20 01 40 or 20 01 02.
A not thoroughly cleaned container is considered dangerous waste	Yes
Other information	See section 8 for personal protection during disposal of waste.

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 Maritime transport in bulk according to IMO instruments	.

15. REGULATORY INFORMATION

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

Pregnant women shall not work with the product.

Borax is a part of the candidate list (Annex XV of REACH). Information must be given in the supply chain of the content is > 0.1 %. Since July 2015 there is a proposal from ECHA of inclusion of Borax to Annex XIV of REACH.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

This SDS is changed in the following sections: Section 12.
Headlines in some sections according to Regulation (EU) 2020/878.

Phrases from section 3:
CLP:
Repr. 1B = Reproductive toxicity, Hazard Category 1B
H360FD May damage fertility. May damage the unborn child.

Sources for data in this SDS

- SDS from supplier of ingredients for this product.
- ECHA database registered substances under REACH. http://echa.europa.eu/
- TRANSITIONAL ANNEX XV DOSSIER SUBMITTED BY: Austria. DATE: 01 December 2008 SUBSTANCE NAME: Boric acid (Boric acid crude natural), 558 p.
- Directive 98/8/EC concerning the placing of biocide products on the market. Inclusion of active substances in Annex I or IA to Directive 98/8/EC. Assessment Report Boric acid. Product-type 8 (Wood preservative). 20 February 2008. Annex I – the Netherlands, 76 p.
- Human and Environmental Risk Assessment on ingredients of Household Cleaning Products. HERA project. Boric Acid. Dec. 2005. 81 p.
- Experimental Study on the Estrogen-Like Effect of Boric Acid. March 2008Biological Trace Element Research 121(2):160-70 https://www.researchgate.net/publication/5902844_Experimental_Study_on_the_Estrogen-Like_Effect_of_Boric_Acid

Other information:

The safety data sheet is based on the REACH regulation EC 1907/2006 and amendments.
Classification according to the CLP regulation EC 1272/2008.