SAFETY DATA SHEET

Issue date 15 Jan. 2009
Ver. 1

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

Product name	**Primer**
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 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)
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
Issued by	Ann Martens, Ramboll Sweden AB, +46-(0)10-615 54 47

2. HAZARDS IDENTIFICATION

Classification:
Not classified as dangerous for health or environment.
Observe the special classification limit for Borax. See section 3.

Most important 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	Could not be given yet: Index no. 005-011-01-1	Borax, Disodium tetraborate decahydrate, ($Na_2B_4O_7 \cdot 10H_2O$)	3-4 %	**According DSD:** Repr. Cat. 2; R60-61 **According CLP:** Repr. 1B; H360FD (C ≥ 8,5 %)	HYG
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-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 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

Inhalation	The product is very difficult to inhale because of its viscous consistency. Move to fresh air and rest if irritation occurs. If symptoms persist or the person is/or has been unconscious seek medical assistance.
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 two glasses of milk or water and try to invoke vomiting. Never give anything to drink to unconscious persons. If there is a risk that the person will become unconscious place and transport the person laying on their side.
Notes to physicians	Ingestion of a minor amount (appr. 4 gr) pure Borax, or 1 dl of the product, only observation is necessary. Gastric lavage is recommended for symptomatic patients only if >1 dl of the product is ingested. Hemodialysis should be reserved for

	massive acute ingestion or patients with renal failure. Boron analyses of urine or blood are only useful for documenting exposure and should not be used to evaluate severity of poisoning or to guide treatment.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	The product will not burn. Extinguish surrounding fire with e.g. foam, carbon dioxide, powder, water spray.
Extinguishing media which must not be used for safety reasons	Not relevant
Fire and explosion hazards	None. Boron compounds have a flame retardant effect.
Special protective equipment for fire-fighters	Not relevant

6. ACCIDENTAL RELEASE MEASURES

Measurements for personal protection	Protective equipment, see section 8.
Measurements for environmental protection.	Make embankments with sand, soil or similar and collect. Prevent discharge in the sewage system.
Methods for cleaning up.	See above. Small amount of the product could be absorbed with vermiculite or similar absorptions agents.
Not suitable cleaning methods.	Do not disposal into sewage system or the environment.

7. HANDLING AND STORAGE

Handling	Local exhaust ventilation could be necessary if dried product should be grinded.
Storage	Store frost free and not above room temperature.
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
215-540-4	1303-96-4	Disodium tetraborate decahydrate	5 mg/m^3	-		UK value

Recommended monitoring procedures	None
Technical Measures/ Precautions	Good ventilation when using the product.
Respiratory protection	If the occupational exposure value is surpassed, use half

	mask with particle filter P2 and filter B.
Hand protection Material / Permeation time	Use gloves of PVC, Butyle or neprene. Permeation time probably > 8 hrs. Thin single use gloves could be used for shorter exposure if PVC is chosen.
Eye protection	None
Skin protection	Normal working clothes. No special protection

9. 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

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 and use conditions

11. TOXICOLOGICAL INFORMATION

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.
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
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.

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.
Boron:
Fish toxicity:
Seawater:
Dab, *Limanda limanda*
96-hr LC_{50} 74 mg B/L
Fresh water:
Flannelmouth sucker, *Catostomas latipinnis*
96 hr LC_{50} 125 mg B/L
Zebrafish, *Brachydanio rerio*
34-day NOEC 5.6 mg B/L (lowest value)
Algal toxicity: Green algae, *Selenastrum capricornutum*
72 hr EC_{50} (biomass) 40 mg B/L (lowest value)
72 hr NOEC (based on growth) 17.5 mg B/L (lowest value)
Aquatic Invertebrate toxicity:
Daphnid, *Daphnia magna* (Straus)
48-hour EC_{50} 133 mg B/L (lowest value)
21-day NOEC 6 mg B/L (lowest chronic value)
21-day NOEC 10.5 mg B/L (geometric mean, 6 tests)
Larval midge, *Chironomus riparius*
28-day NOEC 180 mg B/L (spiked sediment)
Inhibition Respiration of Activated Sludge[10]
LC_{50} 175 mg B/L (3 hr Standard Test)
Ecotoxicity to Terrestrial Organisms
Plant toxicity:
Short term tests of shoot length report 7-10 day IC50 values of 452 to 1603 mg B/kg soil (dry wt) for 12 plant species. The most sensitive end-point for long term plant studies reported a NOEC of 1.6 mg B/kg-soil for the bean Phaseolus vulgaris. Studies also indicate that soil concentrations of

less than 2 mg B/kg soil could be deficient in boron as a plant micronutrient, affecting almost half of those species tested.

Terrestrial Invertebrate toxicity:
Earthworm, *Eisenia andrei*
56-63 day NOEC 54 mg B/kg dry soil (geometric mean, 4 tests)
Collembolan, *Folsomia candida* & *Onychirius folsomi*
35 day NOEC 31-37 mg B/kg dry soil

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

Bioaccumulation: The product does not bioaccumulate or biomagnify in the food chain.

Mobility: 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.

13. DISPOSAL CONSIDERATIONS

Waste code EWC	Depends on where the waste is produced, but suitable is 08 01 11, 08 01 13 or 08 01 19.
The product is hazardous waste	Yes
Package disposal	Well cleaned packaging can be sorted as metal, but tin with remaining product should be treated as hazardous waste. EWC code: 15 01 10.
Suitable disposal measurements	Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Remaining inorganic product should be landfill.

14. TRANSPORT INFORMATION

General	Not regulated as hazardous goods

15. REGULATORY INFORMATION

Labelling Symbols:
The product is not labelled as dangerous for health or environment.

Special labelling:
Interior/exterior trim varnishes and woodstains, including opaque woodstains.
(category e), VOC content < 0 g/l.
EC-limit from 2010, 300 g/l.

16. OTHER INFORMATION

R-phrases from section 3:
DSD:
R50/53 Very toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.
CLP:
Reproductive toxicity, Hazard Category 1B
H360FD May damage fertility. May damage the unborn child.

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/)
- 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
- 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 biocidal 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.

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 is made according to the VOC directive 2004/42/EC. The classification of Borax is changed according to regulation (EC) no 790/2009 with a new Annex VI to the CLP regulation.