



SAFETY DATA SHEET

Issue date 9 April 2015

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

1.1 Product identifier	Linus Lime Tree Green pigment powder
1.2 Relevant identified uses of the substance or mixture and uses advised against	Pigment for mixing with Linus Wall Paint White to different colours. 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: PC18 Ink and Toners Process categories [PROC]: PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) 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, Ramböll Sweden AB
Phone	+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.

2.2 Label elements

No hazard label required.

Other label required according to the VOC-directive and CLP.

EUH210 — 'Safety data sheet available on request'.



2.3 Other hazards

Some types of iron oxide (Fe_3O_4) can self-ignite and at the REACH registration these types has been the classified as "H252 Self-heating in large quantities; may catch fire". This classification is not relevant for the small packaging this product is delivered in.

Chromium (III) oxide can transform to chromium (VI) when heated or exposed to strong acids.

Chromium (VI) is a strong sensitizer and carcinogenic.

3. COMPOSITION/INFORMATION ON INGREDIENTS

EC-no	CAS-no	RECH reg no.	Components name	Conc. wt/wt	Classification	Comment
243-746-4	20344-49-4	01-2119457554-33-0000	Iron oxide (FeOOH)	35-40 %	--	-
215-277-5	1317-61-9		Iron oxide(Fe_3O_4)	10-15 %	--	
215-160-9	1308-38-9	01-2119433951-39	Chromium (III) oxide	45-55 %	--	WEL

Explanation of abbreviations:
 CAS-nr. = Chemical Abstracts Service; EU-nr (Eines 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/m³, 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: Substances are declared according to the CLP regulation and amendments.

For risk phrases in full text see section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures	
Inhalation	Move to fresh air and rest.
Skin contact	Wash the skin with water and soap or 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. Provoke vomiting if possible. If the person is unconscious never give anything to drink or provoke vomiting.
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	Hazard of iron poisoning. Symptoms are nausea, stomach ache and vomiting.
4.3. Indication of any immediate medical attention and special treatment needed	Access to water for rinsing eyes at the working place. Provoke vomiting. Iron chelate complex binding agents can be given (e.g. deferoxamine).



5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media a. Recommended Extinguishing media b. Not Recommended Extinguishing media	The product does not burn. a. Extinguish surrounding fire 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	None
5.3 Advise for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.

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 soap (or linseed soap) and water.
6.1.2 For emergency responders	Wash with water.
6.2 Environment precautions	Prevent discharge to water or 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 mechanically.
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 out of reach of children and away from food.
7.3 Specific end use(s)	No specific end uses.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters



National occupational exposure limits values, EH40, 2005 with updates

CAS-nr	Substance name	WEL 8 h	WEL 5 min	WEL 15 min
1309-37-1	Iron oxide fume (as Fe)	5 mg/m ³		10 mg/m ³
	Chromium (III) compounds (as Cr)	0.5 mg/m ³		

WEL=Workplace Exposure Limit

PNEC and DNEL/DMEL are from the REACH registration of the substances.

CAS-nr	Substance	PNEC (type of environmnet)	DN(M)EL (route of exposure)
20344-49-4	Iron oxide (FeOOH)	PNEC is not relevant	Worker Long term exposure local effect DNEL Inhalation 10 mg/m ³ Worker Long term exposure local effect DNEL Inhalation respirable dust 3 mg/m ³
1317-61-9	Iron oxide (Fe ₃ O ₄)	PNEC is not given at REACH registration.	Worker Long term exposure system effect DNEL Inhalation 10 mg/m ³ Worker Long term exposure local effect DNEL Inhalation dust 3 mg/m ³
1308-38-9	Chromium (III) oxide	PNEC (aqua fresh water) 0.0047 mg/L PNEC (aqua marine) 0.0047 mg/L PNEC aqua (intermittent release) 0.0047 mg/L PNEC STP 10 mg/L PNEC sediment (fresh water) 18.2 mg/kg sediment dw PNEC sediment	Worker Short term exposure local effect DNEL Inhalation 2 mg/m ³ Long term exposure local effect DNEL Inhalation 0.5 mg/m ³ General population Long term exposure local effect DNEL Inhalation 0.5 mg/m ³



		(marine water) 1.31 mg/kg sediment dw	
		PNEC soil 3.2 mg/kg dw	

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	Use protective goggles if dusty handling.
Skin protection	
i) Hand protection (material, thickness, breakthrough time)	i) Use protective gloves of PVC, nitrile or butyl. Permeation time not known, but probably > 8 h.
ii) Other protection	ii) Normal working clothes. No special protection
Respiratory protection	None.
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	Solid powder
Colour	Lime Tree Green
Odour	None
Density	appr. 4.5 kg/l
Decomposing point	180 °C (FeOOH)
Oxidizing properties	No oxidizing properties
Solubility in water	< 0.001 g/l
pH	3.5-8
Fire hazards	The pigment has no fire hazard.

9.2 Other information

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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	Chromium (III) oxide can transform to chromium (VI) when heated or exposed to strong acids. Chromium (VI) is a strong sensitizer and carcinogenic.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

General information: Iron is an essential metal and used among other as part of the blood haemoglobin for oxygen transport. Recommended daily intake is 10-18 mg/day depending on sex.

Iron is however poisonous in high doses with below symptoms.

Acute toxicity

Iron: LC50 (oral rat) 98.6 g/kg

LC50 (6h during totally 20 days on rat) > 250 mg/m³

Chromium (III) oxide: LC50 (oral rat) > 10 000 mg/kg

LC50 (inhalation rat) > 5.41 mg/L

Ingestion: Hazard of iron poisoning. Symptoms are nausea, stomach ache and vomiting.

Inhalation: May cause some transient irritation to the respiratory tract.

Skin contact: Has no effect on skin. Can cause rust pigmentation or irritate the skin at long term exposure.

Eye contact: Can give transient mild irritation. Mechanically irritation of the eye is possible

Sensitization: Not a sensitizer.

Carcinogenic effects: None known.

Reproductive toxicity: None known.

Mutagenic effects: None known.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Acute toxicity:

Iron (Data Prevent, type or iron is not given):

EC50 Daphnia 48h: 5.2 mg/l

IC50 Algae 72h: 0.1 mg/l

Chromium (III) oxide (Data from supplier SDS):

Fish LC0 (Brachydanio rerio): > 10 000 mg/l, 96 h

Long term toxicity: No data.

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

Not relevant for inorganic substances.

12.3 Bioaccumulative potential

Not relevant for inorganic substances.



12.4 Mobility in soil

The product is slightly water soluble and this results in mobility in the eco system.

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.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	a) Emptied plastic package are sorted as plastic. The pigment must be put on a landfill with a legal permit. 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 02 03 03, 20 01 28, 08 01 14.
The product is classified as hazardous waste	No.
Waste codes (EWC) for the container	A suitable code for the package is 15 01 02.
A not thoroughly cleaned container is considered dangerous waste	No
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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	-



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 probably done for substances in the product, but Allbäck has no access to this information.

16. OTHER INFORMATION

Sources for data in this MSDS

- MSDS from supplier of ingredients for this product.
- ECHA data base registered substances. <http://echa.europa.eu>
- Prevent, Chemical Substances database, (<http://kemi.prevent.se/>)

Other information:

The safety data sheet is based on Annex II of the REACH regulation 1907/2006/EC and the CLP regulation EC 1272/2008.