

Safety Data Sheet

According to Regulation (EC) No. 1907/2006



Falu Red paint

Version: 4.0/En

Date of revision: 26.08.2015

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY

1.1. Product identifier:

Trade name:

Falu Red paint, manual application

Red, Light Red, Light Red without linseed oil, Grey, Black

1.2. Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified uses:

- 1; Professional painting outdoors
- 2; Painting outdoors by consumers

Cannot be used in products which come in direct contact with skin.

Cannot be used in products which come in direct contact with food.

Not recommended for indoor painting on large surfaces

1.3. Detailed information about the safety data sheet provider

Name:	Stora Kopparbergs Bergslags AB, Falu Red paint
Address:	Krongårdsvägen 6, SE-791 61 Falun
Telephone number:	+46 (0)23 78 23 25
Fax no.:	+46 (0)23 78 27 08
E-mail of the publisher of the safety data sheet:	info@falurodfarg.com

1.4. Emergency telephone numbers

National emergency telephone number in 112

Sweden:

Telephone number for the Swedish Poisons +46 (0)8 33 12 31

Information Centre:

Emergency telephone number for the company: +46 (0) 23 78 23 25

Available outside office hours:

☐ Yes

☒ No

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2 HAZARDOUS CHARACTERISTICS

2.1. Classification of the mixture

Classification in accordance with Regulation (EC) No. 1272/2008:

Specific organ toxicity - repeated exposure, category 2; H373
Hazardous to the aquatic environment, category chronic 3; H412

Classification in accordance with Directive 1999/45/EC

R52/53

HEALTH

Falu Red paint contains, among other things, lead (Pb) in small amounts; avoid direct contact with the product. Falu Red paint contains substances in small amounts (< 0.1%) which can cause allergic reactions, therefore avoid direct contact and repeated skin contact with the product.

ENVIRONMENT

Falu Red paint is harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment.

FIRE

Falu Red paint is not classified as flammable.

2.2. Labelling information

Labelling in accordance with Regulation (EC) No 1272/2008

Hazard pictogram:



Signal word: Warning

Hazard statements:

H373 May cause damage to organs through prolonged or repeated exposure
H412 Harmful to aquatic life with long-lasting effects

Precautionary statements:

P102 Keep out of reach of children
P260 Do not breathe dust/mist
P280 Wear protective gloves/protective clothing/eye protection/face protection
P314 Seek medical attention if you feel unwell
P401 Store in frost-free conditions
P273 Avoid release to the environment
P501 Dispose of contents/container at a hazardous waste collection point

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Supplementary hazard information:

EUH201 Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
EUH208 Contains 4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one, 3-iodo-2-propynyl butylcarbamate and 1,2-benzisothiazol-3(2H)-one. May cause an allergic reaction.

Contents: Falu Red pigment

2.3. Other hazards

The PBT and vPvB criteria in Annex XIII in REACH are not applicable to Falu Red paint pigment.

3 COMPOSITION/INFORMATION ABOUT INGREDIENTS

3.2. Mixture

Falu Red paint is a distemper paint characterised by the principle binding agent of powder paste and linseed oil. The pigment in the paint is Falu Red pigment, which contains hematite, magnetite, geothite, feldspar, calcium sulphate, lead oxide sulphate, zinc and copper. The original material for Falu Red pigment is a naturally occurring earth pigment. The main ingredients are non-respirable quartz (20-45%), hematite (0-45%) and magnetite (0-45%).

Classification in accordance with EU Directive 67/548/EEC

Falu Red paint						
Hazardous substance	REACH registration no.:	Conc. %	CAS no.	EC no.	Hazard code	Risk phrases
Falu Red pigment	01-2119703173-52	18		910-670-4	T, N	R61, R33, R51/53

Ingredients in Falu Red pigment that are classified as hazardous:

Hazardous substance	Conc. % in the paint	CAS no.	EC no.	Hazard code	Risk phrases
Quartz (respirable fraction)	1.1	14808-60-7	238-878-4	Xn	R48/20
Lanarkite as lead	0.23	12036-76-9	234-853-7	T, Xn, N	R61, R62, R20/22, R33, R50/53
Zinc oxide	0.1	1314-13-2	215-222-5	N	R50/53

For full text risk phrases, see section 16.

Classification of constituent substances in accordance with CLP Regulation (1272/2008/EC)

Falu Red paint						
Hazardous substance	REACH registration no.	Conc. (%)	CAS no.	EC no.	Hazard class and category codes	Hazard statements
Falu Red pigment	01-2119703173-52	18		910-670-4	Repr.1A STOT RE 2 Aquatic Chronic 2	H360Df H373 H411

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Ingredients in Falu Red pigment that are classified as hazardous:					
Hazardous substance	Conc. % in the paint	CAS no.	EC no.	Hazard class and category codes	Hazard statements
Quartz (respirable fraction)	1.1	14808-60-7	238-878-4	STOT RE 1	H372
Lanarkite as lead	0.23	12036-76-9	234-853-7	Repr.1A Acute Tox. 4 STOT RE 2 Aquatic Acute 1 Aquatic Chronic 1	H360Df H332 H302 H373 H400 H410
Zinc oxide	0.1	1314-13-2	215-222-5	Aquatic Acute 1 Aquatic Chronic 1	H400 H410

For full text hazard statements, see section 16.

4 FIRST AID MEASURES

4.1. Description of first aid measures

In the event of inhalation: Provide access to fresh air in the case of inhalation of dust, spray paint or paint aerosols. Prepare artificial respiration equipment if necessary. If symptoms persist, seek medical assistance. In the event of a loss of consciousness, place the patient in the recovery position and wait for an ambulance.

In the event of skin contact: Remove soiled and contaminated clothing. Wash exposed skin with soap and water. Rinse with plenty of water.

In the event of eye contact: Rinse open eyes for several minutes under running water. If possible, use tepid water. If symptoms persist, seek medical attention.

In the event of ingestion: If the patient is fully conscious, get them to drink a couple of glasses of water. Try to induce vomiting. Seek medical attention or attend hospital.

4.2. The most important symptoms and effects, both acute and delayed

As the symptoms of poisoning may only be apparent after several hours, an exposed person must be kept under medical observation for at least 48 hours after an incident.

4.3. Indication of any immediate medical attention and special treatment required

As a general rule, and in cases of doubt or where symptoms persist; Seek medical attention. Never try giving fluids to an unconscious person.

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5 FIRE-FIGHTING MEASURES

5.1. Extinguishing media

The mixture is not highly flammable. Choose fire-fighting equipment that is appropriate for the situation.

Suitable extinguishing media: CO₂, powder or water extinguishers. More extensive fire seats must be tackled using an alcohol-resistant foam.

Unsuitable extinguishing media: For reasons of safety, water extinguishers with a powerful jet should not be used.

5.2. Special hazards arising from the substance or mixture

None known.

5.3. Advice for fire-fighters

Use protective equipment with a respiration mask, as well as protective clothing.

6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

In the event of dust formation, use suitable respiration equipment and protective clothing (see section 8).

6.2. Environmental precautions

Prevent emissions to drains, surface water or ground water. In the event of emissions to watercourses or the sewer network, the relevant authorities must be contacted. In the event of larger emissions, contact the emergency services.

6.3. Methods and material for containment and cleansing

Collect spillage and waste in suitable storage vessels. Treat this as hazardous waste.

6.4. Reference to other sections

For more information about waste management, see sections 8 and 13.

7 HANDLING AND STORAGE

7.1. Precautions for safe handling

Protective measures:

Handle in accordance with good hygiene and safety standards in a well-ventilated location. Handle and open containers in such a way as to avoid the production of dust. Avoid inhaling and getting dust on your skin/in your eyes. Use a respiration mask that is compliant with EN140 with type P3 filter (particle filter) or better

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when brushing and sanding surfaces that have previously been painted. Wear protective goggles and rubber gloves.

General advice for good work hygiene:

Wash your hands, underarms and face carefully after the substance has been handled, as well as before meals, coffee breaks or smoke breaks, and at the end of the working day. Take off contaminated or dusty work clothes. Wash contaminated work clothes before using them again.

7.2. Conditions for safe storage, including any incompatibilities

Store the paint in sealed containers in frost-free conditions. Storage containers must be well sealed and stored in a dry location.

7.3. Specific end use

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Data is taken from tests conducted on main ingredient iron oxide and contaminant lead.

About iron oxide

The only critical exposure path is the inhalation of dust, which is why only this exposure path is taken into account in respect of the limit values for professionals and the general public.

The effects that have been observed are the result of the particles in the dust (size, shape), rather than the type of substance they consist of, and so it is more relevant to use general limit values for dust such as DNEL.

DN(M)ELs for professional exposure:

Effects	Exposure path	Type	DNEL/DMEL
Chronic, systematic effects	Inhalation	DNEL	10 mg/m ³ (inhalable* dust)
	Inhalation	DNEL	3 mg/m ³ (inhalable* dust)
Chronic, local effects	Inhalation	DNEL	10 mg/m ³ (inhalable* dust)
	Inhalation	DNEL	3 mg/m ³ (respirable* dust)

*The inhalable fraction is the amount of particles of the total quantity of particles in the air that can be inhaled through the nose and mouth. The respirable fraction is the inhalable particles that penetrate furthest down into the airways to the alveoli in the lungs.

About lead contamination

The DNEL values for risk assessment of professional exposure:

Sub-population	DNEL	Health effects
Pregnant women	10 ug/dL	Developmental toxicity with regard to development of cognitive parts of the nervous system/brain
Other adults	40 ug/dL	Neuropsychological functions

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DNEL values for risk assessment of the entire population:

Sub-population	DNEL	Health effects
Children (individuals)	10 ug/dL	Learning effects
Children (population)	5 ug/dL	Non-defined (neuropsychological) effects at a societal level
Pregnant women	10 ug/dL	Developmental toxicity with regard to development of cognitive parts of the nervous system/brain
Other adults	20 ug/dL	Neuropsychological functions

Aquatic PNEC values

As it is not possible to conventionally calculate PNECs for the mixture, the "read-across" from a very large number of studies of lead ecotoxicity has been used.

	PNEC
Fresh water	6.5 µg solution Pb/L
Sea water	3.4 µg/L solution Pb/L

Respirable fractions

The table below shows the professional hygiene limit values (level limit values, 8 hours of exposure) that apply in Sweden in respect of the respirable fractions of the pigment.

Respirable Component	Professional hygiene level limit value, 8 hours of exposure, (AFS 2011:18)
Quartz	0.1 mg/m ³
Zinc oxide	5 mg/m ³

8.2. Limitation of exposure

Appropriate technical control measures

The product is intended for use during painting outdoors and for spray painting indoors. Use personal protective equipment. Wash your hands before breaks and at the end of the working day. Remove contaminated work clothing and wash them before they are used again.

Individual protective measures, e.g. personal protective equipment

Make sure that you wash your hands in connection with breaks and at the end of the working day.

Eye protection/Face protection:

Use full protective goggles with side protection.

Skin protection/gloves:

Use protective clothing and rubber gloves when the product is being handled during any operation in which dust may be created.

Respiratory protection:

Use a respiration mask that is compliant with EN140 with type P3 filter (particle filter) or better when the product is used in operations in which dust may be created, and when spray painting.

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Limitation of environmental exposure

Contaminated process water must either be purified in a dedicated process water purification facility or be channelled to a waste purification plant that has both primary and secondary purification stages. For more information about waste, see sections 6 and 13.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information about basic physical and chemical properties

Parameter	Result	Method/comment
Appearance	Viscous liquid	at 20°C and 1013 hPa.
Colour	Red, light red, grey, black	at 20°C and 1013 hPa.
Melting point / freezing point	Not determined	Melting point for all the main components is >1000°C
Boiling point	Not applicable	All the main components are inorganic compounds.
Flash point	Not applicable	All the main components are inorganic compounds
Evaporation rate	Not applicable	All the main components are inorganic compounds
Relative density	1.16-1.19	at 20°C.
Solubility in water	Soluble in water	
pH	6-7	

9.2. Other information:

0.85 % of the lead in the paint is bioavailable after 3 hours of leaching at pH 7 (37°C), see section 11.

10 STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous chemical reactions are expected to occur based on the structure and chemical properties of the constituent components.

10.2. Chemical stability

The mixture is stable and will not react with either oxygen or air.

10.3. Risk of hazardous reactions

The mixture is stable and mainly inorganic. No hazardous chemical reactions are expected to occur based on the structure and chemical properties of the constituent components.

10.4. Conditions to avoid

Must be protected from moisture and strong oxidising agents.
For more information about correct storage conditions and handling, see section 7.

10.5. Incompatible materials

No relevant information.

10.6. Hazardous decomposition products

No relevant information.

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11 TOXICOLOGICAL INFORMATION

11.1. Information about toxicological effects

The pigment in Falu Red paint is a multi-constituent substance and toxicological data is not available for the substance or for the mixture. Data is instead taken from tests conducted on main ingredient iron oxide and contaminant lead.

Information shall be submitted for the following hazard classes:

(a) Acute toxicity	Oral	Rat LD50: > 2000 mg/kg bw*
	Inhalation	Rat, inhalation toxicity LC50 (4 h): > 5.05 mg/L* The substance is not classified as being acutely toxic.
(b) Corrosive/irritating to skin		The substance is not corrosive or irritating (measurement of skin reaction on rabbits in accordance with OECD 404)*
(c) Serious eye damage/eye irritation		The substance is not corrosive or irritating (according to tests carried out on both iron oxide and lead).
(d) Airway/skin sensitisation		The substance is not classified as being airway or skin sensitising based on the properties of the constituent components.
(e) Gamete mutagenicity		The substance is not classified as being mutagenic based on the properties of the constituent components.
(f) Carcinogenicity		The substance is not classified as being carcinogenic based on the properties of the constituent components.
(g) Reproductive toxicity		Lead is toxic to the reproductive system, which means that the pigment is also classified as having reproductive toxicity.
(h) Specific organ toxicity (STOT) - one-time exposure		The substance is not classified as being STOT-SE based on the properties of the constituent components.
(i) Specific target organ toxicity (STOT) - repeated exposure		Lead is classified as STOT-RE, which means that the pigment is also classified as STOT-RE. Causes damage to organs through prolonged or repeated exposure.
(j) Hazardous in the event of aspiration		The substance is not classified as being hazardous in the event of aspiration.

* Refers to data for Fe III. There is no data available for hematite (Fe₂O₃).

12 ECOLOGICAL INFORMATION

12.1. Toxicity

Data is taken from tests conducted on main ingredient iron oxide and contaminant lead, hematite (Fe₂O₃) and contaminant lead.

Contaminant lead:

The summary is based on ecological toxicity data from water soluble lead salts and measured lead contents in water solution:

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Relevant ecological toxicity information:

Species	Fe	Fe Type of Endpoint	Pb	Pb Type of Endpoint
Fish	0.5 mg/l	21 d, NOEC, Cyprinus carpio	0.9 µg/l (0.9-1.02 µg/l)	30 d, NOEC, Pimephales promelas, incubation time
Aquatic invertebrates	>100 mg/l 12.9 mg/l	48 h, EC50, Daphnia magna, OECD 202 24 h, LC50, Brachionus calyciflorus, OECD 202	26.4 µg/l	48 h, LC50, Ceriodaphnia dubia, acute toxicity.
Aquatic green algae			21.7 µg/l	48 h, LC50, Pseudokirchneriella subcapitata
Soil microorganisms			96 mg/ kg soil	28 d, NOEC, on soil inoculum respiration.
Soil macroorganisms			130 mg /kg DS	112 d, NOEC, hatching rate of Dendrobaena rubida
Plants			110 µg/l	7 d, NOEC, Lemna gibba, Leaf and biomass growth

12.2. Persistence and degradability

Abiotic degradation

Not determined. In accordance with Annex VIII of REACH (column 2), no hydrolysis studies are required, as the product's main ingredients are almost insoluble in water.

Biodegradation

Biological degradation is not relevant for inorganic substances such as Falu Red pigment.
(refers to the pigment)

12.3. Bioaccumulative potential

Not determined. In accordance with Annex XI of REACH (Section 1), studies of bioaccumulation are not required because of the very low bioavailability for the category of substance the metals belong to.

For lead contaminant:

- In the aquatic environment, bioaccumulation / bioconcentration in freshwater: 1.55 L/kg.
- In soil environment, bioaccumulation / bioconcentration in soil: 0.39 kg/kg (dry substance).

12.4. Mobility in soil

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No information accessible.

12.5. Results of PBT and vPvB assessment

The PBT and vPvB criteria in Annex XIII in REACH are not applicable to inorganic substances (Falu Red pigment).

12.6. Other adverse effects

None known.

13 WASTE MANAGEMENT

13.1. Waste management methods

Product and packaging waste:

Destroy waste, spillage and packaging waste in accordance with local provisions and national legislation. Processing, use or contamination of the product may change the conditions for waste management. Contaminated process water must either be purified in a dedicated process water purification facility or be channelled to a waste purification plant that has both primary and secondary purification stages.

14 TRANSPORT INFORMATION

Falu Red paint is not classified as hazardous goods for transport.

- | | |
|---|----------------|
| 14.1. UN number | Not applicable |
| 14.2. UN proper shipping name | Not applicable |
| 14.3. Hazard class for transport | Not applicable |
| 14.4. Packaging group | Not applicable |
| 14.5. Environmental hazards | Not applicable |
| 14.6. Special precautionary measures | Not applicable |
| 14.7. Bulk transport in accordance with appendix II of MARPOL 73/78 and the IBC code is | not regulated |

15 APPLICABLE REGULATIONS

15.1. Safety, health and environmental regulations/legislation applicable to the substance

15.2. Chemical safety assessment

No chemical safety report yet been compiled for the Falu Red paint mixture.

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16 OTHER INFORMATION

Full text of risk phrases from sections 2 and 3.2:

R48/20;	Hazardous: seriously hazardous to health in the event of long term exposure or inhalation
R20/22;	Harmful if inhaled or ingested
R33;	May accumulate in the body and cause damage
R36/37/38;	Irritating to eyes, respiratory system and to skin
R43;	May cause sensitisation by skin contact
R50;	Highly toxic to aquatic life
R50/53;	Highly toxic for aquatic life, may cause long-term adverse effects in the aquatic environment
R51/53;	Toxic for aquatic life, may cause long-term adverse effects in the aquatic environment
R52/53;	Harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment.
R61;	May cause harm to the unborn child
R62;	Possible risk of impaired fertility

Full text of hazard statements from section 3.2:

H302;	Harmful if ingested
H315;	Irritates skin
H317;	May cause an allergic reaction on the skin
H319;	Causes serious irritation to the eyes
H332;	Harmful if inhaled
H335;	May cause irritation of the airways
H360Df;	May cause harm to the unborn child. Suspected of impairing fertility
H372;	Causes damage to organs through prolonged or repeated exposure
H373;	May cause damage to organs through prolonged or repeated exposure
H400;	Highly toxic to aquatic life
H410;	Long-lasting highly toxic effects on aquatic life
H411;	Long-lasting toxic effects on aquatic life.
H412;	Harmful to aquatic life with long-lasting effects

Abbreviations

AFS:	The Swedish Work Environment Authority's Code of Statutes
EC50:	Effect Concentration. The concentration that has a specific observed or measured effect on 50 % of test organisms within a specific period of time.
LC50:	Lethal Concentration. The concentration that is lethal to 50 % of test organisms within a specific period of time.
LD50:	Lethal Dose. The dose that is lethal for 50 % of test organisms.
NOEC:	No Observed Effect Concentration. The highest concentration in a test that has no hazardous effects on test organisms, expressed as a daily dose in mg/kg of body weight.
PNEC:	Predicted No-effect Concentration. In Swedish: Uppskattad nolleffektkoncentration, and defined as the concentration of the substance under which there are not expected to be any damaging effects in the environment.
DN(M)EL:	Derived No (Minimal) Effect Level. The exposure level at which no damaging effects are expected to occur.
PBT:	Persistent, Bioaccumulative, Toxic substances. In Swedish: Långlivade, Bioackumulerande och Toxiska ämnen. PBT substance that satisfies the criteria set out in part 1, appendix XIII in REACH.
vPvB:	Very Persistent, Very Bioaccumulative substances. In Swedish: Mycket långlivade och bioackumulerande ämnen. A vPvB substance satisfies the criteria set out in part 2, appendix XIII in REACH.

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Revision

This version of the safety data sheet replaces all earlier versions.

This safety data sheet (SDS) has been drawn up in accordance with ordinance (EC no.) 1907/2006 REACH, article 31 and appendix II, with amendments.

The content is intended to provide the relevant safety measures when handling the substance. It is up to the recipient of this safety data sheet to disseminate the information contained therein.

Employers shall inform affected employers about the health and accident risks of hazardous chemical substances in the workplace and how these risks can be avoided. Employers must ensure that affected employees have understood the information.

Document history

Version	Date	Remark
1	29082011	First edition
2	29052013	Editorial amendments
3	12052015	Amendments to sections 2, 3, 7 and 8
4	26082015	Amendment to section 1, 2 and 3.