SAFETY DATA SHEET (SDS)

SDS Compliant with REACH Regulation (EC) No 1907/2006 – Nº 453/2010

PHOENIX® LEADED LIGHT CEMENT

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier.	Product Name: Phoenix® Leaded Light Cement.	
1.2. Relevant identified uses of the substance or mixture and uses advised against.	Identified uses: Stiff paste for forming a weather-tight seal between the glass and lead in leaded lights. Uses advised against: Any other uses other than the advised purpose.	
1.3. Details of the supplier of the datasheet.	Hodgson Sealants (Holdings) Limited Belprin Road Beverley East Yorkshire HU17 0LN	Tel: + 44 (0)1482 868321 Fax: + 44 (0)1482 679337 E-mail: SDS@hodgsonsealants.com
1.4. Emergency Phone Number (UK Office Hours Only: 9am to 5pm)	Tel: + 44 (0)1482 868321 E-mail: SDS@hodgsonsealants.com	

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture.

2.1.1. Classification according to regulation (EC) No 1272/2008 [CLP].

Classification according to regulation (EC) No 1272/2008 [CLP].
Repro. 1A; H360
Aquatic Chronic 3; H412

2.2. Label elements.

2.2.1. Classification according to regulation (EC) No 1272/2008 [CLP].

Label elements according to regulation (EC) No 1272/2008 [CLP].

Signal word; **Danger**

Hazard statements;
H360 May damage fertility or the unborn child
H412 Harmful to aquatic life with long lasting effects
Precautionary Statements – Prevention;
P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P273 Avoid release into the environment
P281 Use personal protective equipment as required
Precautionary Statements – Response;
P308+P313 If exposed or concerned: get medical advice / attention
Precautionary Statements – Storage;
P405 Store locked up
Precautionary Statements – Disposal;
P501 Dispose of contents / container in accordance with local regulations
Supplementary Statements;
EUH201 Contains lead. Should not be used on surfaces liable to be chewed or sucked by children

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixtures
Description of mixture: Homogeneous mixture of mineral filler, linseed oil, plasticiser and white spirit.
Hazardous ingredients:

Name	CAS No.	EC No.	REACH Registration No.	% (weight)	Classification according to Regulation (EC) No 1278/2008 (CLP).
Naphtha (petroleum) hydrotreated heavy.	64742-48-9	265-150-3	01-2119463258-33-xxxx	3-4	Flam Liq.3; H226 Acute Tox.4; H304 STOT-SE.3; H336
Orange lead	1314-41-6	215-235-6	01-2119517589-27-xxxx	>0.3 - <0.8	Acute Tox. 4 (oral); H302 Acute Tox. 4 (inhal.); H332 Repro. 1A: H360Df STOT Rep. Exp. 2; H373. Aquatic Chronic 1; H410. Aquatic Acute 1; H400

Additional information: For full text of H-statements and R-phrases: see SECTION 16.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures	
Following inhalation:	Supply fresh air. Consult doctor if symptoms persist.
Following skin contact:	Remove any contaminated clothing. Wash affected area with water and soap immediately and rinse thoroughly.
Following eye contact:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Following ingestion:	Rinse mouth with water. Call for a doctor immediately. Show this safety data sheet.
4.2. Most important symptoms and effects, both acute and delayed.	Typical clinical manifestations of lead poisoning include weakness, irritability, asthenia, nausea, abdominal pain with constipation, and anaemia.
4.3. Indication of any immediate medical attention and special treatment needed.	No data available.

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media	
Suitable extinguishing media;	Carbon dioxide, foam, dry powder or fine water spray. Water can be used to cool containers exposed to fire.
Unsuitable extinguishing media;	None known.
5.2. Special hazards arising from the substance or mixture	
Hazardous combustion products;	Carbon oxides and traces of incompletely burned carbon compounds.
5.3. Advice for firefighters	A self-contained respirator and protective clothing should be worn. Keep containers cool with water spray until well after fire is out. Determine the need to evacuate or isolate the area according to your local emergency plan.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures.	
6.1.1. For non-emergency personnel.	
Protective equipment:	Wear suitable protective equipment. See SECTION 8 for further details.
Emergency procedures:	Not applicable.
6.2. Environmental precautions:	Do not allow to enter sewers / surface or ground water. In case of spillage to water course or public sewers inform responsible authorities.
6.3. Methods and material for containment and cleaning up.	
6.3.1. For containment:	Do not allow to enter sewers / surface or ground water.
6.3.2. For cleaning up:	Scrape up and place in a container fitted with a lid. Dispose of in accordance with local regulations.
6.3.3. Other information:	No further data available.
6.4. Reference to other sections	See SECTION 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling	
Measures to prevent fire:	This product is not flammable.
Measures to prevent aerosol and dust generation:	Ensure good ventilation/extraction at the workplace.
Measures to protect the environment:	Do not allow to enter sewers / surface or ground water.
7.2. Conditions for safe storage, including any incompatibilities.	Keep container closed and store away from moisture. Do not store with or close to food and animal feedstuffs.
7.3. Specific end use(s).	Stiff paste for forming a weather-tight seal between the glass and lead in leaded lights.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Maximum airborne concentrations at the workplace:

Name	CAS No.	Type	Mg/m³	ppm
Orange lead – lead and inorganic compounds (as Pb)	1314-41-6	OEL – 8 hours (UK)	0.15	-

Derived No-Effect Level (DNEL); Orange lead

	Workers				Consumers			
Route of exposure	**Acute effect local**	**Acute effects systemic**	**Chronic effects local**	**Chronic effects systemic**	**Acute effects local**	**Acute effects systemic**	**Chronic effects local**	**Chronic effects systemic**
Oral	-	40 µg/dL* 10 µg/dL**	-	-	-	-	-	-
Inhalation	-	-	-	-	-	-	-	-
Dermal	-	-	-	-	-	-	-	-

Most sensitive endpoint; * Adult neurological function.

** Development effect on foetus of pregnant women.

Ecological toxicity values; Orange lead

Reliable acute aquatic toxicity test results (tests conducted with soluble lead salts)

Test organism	Species	Endpoint	Value
Algae	Pseudokirchneriella subcapitata	72h EC50 (pH>6.5-7.5) 72h EC50 (pH<7.5-8.5)	52.0 µg Pb/L 233.1 µg Pb/L
Invertebrates	Daphnia magna Ceriodaphnia dubia	48h EC50 (pH>7.5-8.5) 48h EC50 (pH>5.5-8.5)	107.5 µg Pb/L 73.6 µg Pb/L
Fish	Oncorhynchus mykiss Pimephales promelas	96h LC50 (pH>6.5-8.5) 96h LC50 (pH>5.5-8.5)	107.0 µg Pb/L 194.2 µg Pb/L

Reliable chronic aquatic toxicity test results (tests conducted with soluble lead salts)

Compartment	Species	Value (EC10, NOEC)
Freshwater	Hyalella azteca (42d, mortality)	8.2 µg Pb/L (dissolved lead)
Marine water	Mytilus trossolus (48h, developmental abnormalities)	9.2 µg Pb/L (dissolved lead)
Freshwater sediment	Tubifex tubifex (28d, reproduction)	573 mg Pb/kg dw
Marine sediment	Neanthes arenaneodentata (28d, growth)	680 mg Pb/kg dw
Terrestrial (plants)	Hordeum vulgare (yield based on root)	57 mg Pb/kg dw
STP Micro-organisms (Protozoa)	Protozoan community (24h-LC10)	1.0 mg Pb/L

Predicted No Effect Concentration (PNEC); This product does not contain any substances with any identified hazard or PNEC value.

Environmental protection target	PNEC Value
Fresh water	6.5 µg Pb/L (dissolved lead)
Freshwater sediment (with/without bioavailability correction)	41.0/174.0 mg Pb/kg dw
Marine water	3.4 µg Pb/L (dissolved lead)
Marine sediments	164.2 mg Pb/kg dw
Terrestrial	147.0 mg Pb/kg dw
STP Micro-organisms	0.1 mg Pb/L

8.2. Exposure control

8.2.1. Appropriate engineering controls: Ensure adequate ventilation.

8.2.2. Personal protection equipment: Protective clothing should be selected specifically for the working place, depending on the quantity of substance handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

8.2.2.1. Eye face protection: Safety glasses should be worn.

8.2.2.2. Skin protection: Chemical protective gloves should be worn. For gloves breakthrough time contact the chemical protective glove supplier.

8.2.2.3. Respiratory protection: Protective clothing should be selected specifically for the working place, depending on the quantity of substance handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

8.2.2.4. Thermal hazards: None known.

8.2.3. Environmental exposure controls: Refer to section 6 & 12.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties.

a) **Appearance:** Stiff paste.
b) **Odour:** Low / solvent.
c) **Odour Threshhold:** No data available.
d) **pH:** No data available.
e) **Melting point / freezing point:** No data available.
f) **Initial boiling point and boiling range:** No data available.
g) **Flash point:** No data available.
h) **Evaporation rate:** No data available.
i) **Flammability (solid, gas):** No data available.
j) **Upper / lower flammability or explosive limits:** No data available.
k) **Vapour pressure:** No data available.
l) **Vapour density:** No data available.
m) **Relative Density:** 2.0g/ml @ 20°C.
n) **Solubility (ies):** Insoluble in water. Some components soluble in organic liquids.
o) **Partition coefficient: n-octanol / water:** No data available.
p) **Auto-ignition temperature:** No data available.
q) **Decomposition temperature:** No data available.
r) **Viscosity:** No data available.
s) **Explosive properties:** No data available.
t) **Oxidising properties:** No data available.

9.2 Other Information:	No data available.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity	Stable at room temperature.
10.2 Chemical stability	Stable at room temperature.
10.3 Possibility of Hazardous Reactions	None established.
10.4 Conditions to Avoid	No data available.
10.5 Incompatible Materials	No data available.
10.6 Hazardous decomposition products	During combustion carbon monoxide and carbon dioxide will be generated.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:	Toxicity data for orange lead (lead tetroxide): LD50 (oral, rat) > 10 000 mg/kg. Sparingly soluble inorganic lead compounds have generally been found to be of relatively low acute toxicity by ingestion, in contact with skin, and by inhalation. Nevertheless current EU regulations require this substance to be classified as harmful by ingestion.
Irritation:	Prolonged contact may defat and dry the skin leading to possible irritation and dermatitis. May cause irritation of the mouth, throat and digestive system and eventual vomiting; based on the white spirit component.
Corrosivity:	No data available.
Sensitisation:	No data available.
Repeated dose toxicity:	Inorganic lead compounds are cumulative poisons and may be absorbed into the body through ingestion or inhalation. Inorganic lead compounds have been documented in observational human studies to produce toxicity in multiple organ systems and body function including the haemotopoetic (blood) system, kidney function, reproductive function and the central nervous system.
Carcinogenicity:	There is evidence that highly soluble inorganic lead compounds may have a carcinogenic effect, particularly on the kidneys of rats. However, the mechanisms by which this effect occurs are still unclear. Epidemiology studies of workers exposed to inorganic lead compounds have found a limited association with stomach cancer. This has led to the classification by IARC that inorganic lead compounds are probably carcinogenic to humans (Group2A).
Mutagenicity:	The evidence for genotoxic effects of highly soluble inorganic lead compounds is contradictory, with numerous studies reporting both positive and negative effects. Responses appear to be induced by indirect mechanisms, mostly at very high concentrations that lack physiological relevance.
Toxicity for reproduction:	Exposure to high levels of inorganic lead compounds may cause adverse effects on male and female fertility, including adverse effects on sperm quality. Prenatal exposure to inorganic lead compounds is also associated with adverse effects on neurobehavioural development in children.
Further toxicological information:	No data available.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity:	Inorganic lead compounds are expected to be acutely toxic in the environment and also to present a long term hazard to aquatic organisms. Toxicity will depend on the level of free lead ion in solution, which in turn is affected by pH, water hardness, salinity, etc. Lead toxicity is expected to be greater in softer waters.
12.2. Persistence and degradability:	Orange lead is an inorganic substance and does not degrade. It is persistent in the environment. Biologically not degradable. Avoid release to the environment.
12.3. Bioaccumulative potential:	Inorganic lead is considered to be bioaccumulating in the environment, and may accumulate in aquatic and terrestrial plants and animals.
12.4. Mobility in soil:	Mobility is expected to be low.
12.5. Results of PBT and vPvB testing:	Not applicable.
12.6. Other adverse effects:	No data available.
12.7. Additional information:	No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:	Dispose of in accordance with local regulations. Do not empty product into drains.
13.1.1. Product / packaging disposal: **Waste codes / waste designations according to LoW:**	According to the European catalogue, waste codes are not product specific. The user should assign waste codes, preferably in discussion with waste disposal authorities.
13.1.2. Waste treatment-relevant information:	No data available.
13.1.3. Sewage disposal-relevant information:	No data available.
13.1.4. Other disposal recommendations:	No further data available.

SECTION 14. TRANSPORT INFORMATION

	Road ADR	Railway RID	Sea - IMGD Code	Air – ICAO-TI/IATA-DGR
14.1. UN Number	2291	2291	2291	2291
14.2. UN proper shipping name	Lead Compound Soluble; N.O.S. (LEAD (II, IV)-oxide)			
14.3. Transport hazard class(es)	6.1, T5	6.1, T5	**EmS-Nr;** F-A, S-A	6.1
14.4. Packing Group	III LQ; 5kg	III LQ; 5kg	-	-
14.5. Environmental hazards	Marine pollutant	Marine pollutant	Marine pollutant	Marine pollutant
14.6. Special precautions for user	-	-	-	-
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code"	-	-	-	-

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture	No data available.
15.2 Chemical Safety Assessment.	No data available.

SECTION 16. OTHER INFORMATION

Indication of changes:
Section changed from previous version: SECTIONS 2, 3 & 16.

Abbreviations / Acronyms used:
Acute Tox.: Acute Toxicity
CAS No: CAS Registry Numbers
Carc.: Carcinogenic
CLP: Classification, Labeling and Packaging of chemicals
DN(M)EL: Derived No-Effect Level or Derived Minimal Effect Level
EC No: European Commission number
EC Name: European Commission Name
IARC: International Agency for Research on Cancer
IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50: Lethal Dose, 50%
LD50: Lethal Dose, 50%
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
NOAEL: No observed adverse effect level.
NOEC: No Observed Effect Concentration
OELs: Occupational Exposure Limits
P Statement: Precautionary statement
PNEC: Predicted No-Effect Level
PBT: Persistent, bio-accumulative, toxic
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
Repr.: Reprotoxic
STOT: Single Target Organ Toxicity
SDS: Safety Data Sheet
vPvB: Very Toxic Very Bio-accumulative

Relevant R-phrases and/or H-statements (number and full text):
According to Regulation (EC) No 1278/2008 (CLP/ GHS);
H226 Flammable liquid and vapour
H302 Harmful if swallowed
H304 May be fatal if swallowed and enters airways
H332 Harmful if inhaled
H336 May cause drowsiness of dizziness
H373 May cause damage to organs through prolonged or repeated exposure
H360 May damage fertility or the unborn child
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects
H412 Harmful to aquatic life with long lasting effects
P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P273 Avoid release into the environment
P281 Use personal protective equipment as required
P308+P313 If exposed or concerned: get medical advice / attention
P405 Store locked up
P501 Dispose of contents / container in accordance with local regulations
EUH201 Contains lead. Should not be used on surfaces liable to be chewed or sucked by children

This Product Safety Data Sheet was prepared in compliance with article 31 and Annex II of the EU REACH regulation as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.
This product should only be used as stated in Hodgson literature. It is the responsibility of the persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose of or in any way come in to contact with the product. If the recipient subsequently produces a formulation containing the Hodgson product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Hodgson Product Safety Data Sheet to their own Product Safety Data Sheet in compliance with article 31 and Annex II of the EU REACH regulation.
All information and instructions provided in the Product Safety Data Sheet are based on the current state of scientific and technical knowledge at the date indicated on the present Product Safety Data Sheet. Hodgson shall not be held responsible for any defect in the product covered by this Product Safety Data Sheet, should the existence of such defect not be detectable considering the current state of scientific and technical knowledge.