SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Lead(II) oxide, 50 g

CAS No:	1317-36-8
Index No:	082-001-00-6
EC No:	215-267-0

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

Use of the substance/mixture

Laboratory chemicals

1.3. Details of the supplier of the safety data sheet

Seller

Company name:	CONATEX-DIDACTIC Lehrmittel GmbH
Street:	Im Forstgarten 1
Place:	D-66459 Kirkel
Internet:	www.conatex.com

Supplier

Company name:	Carbolution Chemicals GmbH	
Street:	Im Stadtwald, Gebäude A1.2	
Place:	D-66123 Saarbrücken	
Contact person:	Dr. Michael Bauer	Telephone: +49 (0)681 302-71232
e-mail:	michael.bauer@carbolution-chemicals.de	
Internet:	www.carbolution-chemicals.de	

1.4. Emergency telephone number:

+49 (0)681 302-71232

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Indications of danger: R1 - Repr. Cat. 1, R3 - Repr. Cat. 3, Xn - Harmful, N - Dangerous for the environment
R phrases:
May cause harm to the unborn child.
Possible risk of impaired fertility.
Harmful by inhalation and if swallowed.
Danger of cumulative effects.
Very toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

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

Hazard categories:
Reproductive toxicity: Repr. 1A
Acute toxicity: Acute Tox. 4
Acute toxicity: Acute Tox. 4
Specific target organ toxicity - repeated exposure: STOT RE 2
Hazardous to the aquatic environment: Aquatic Acute 1 (M-Factor = 1)
Hazardous to the aquatic environment: Aquatic Chronic 1 (M-Factor = 1)
Hazard Statements:
May damage the unborn child. Suspected of damaging fertility.

Harmful if inhaled.
Harmful if swallowed.
May cause damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label

lead compounds with the exception of those specified elsewhere in this Annex

Signal word: Danger

Pictograms: GHS07-GHS08-GHS09

Hazard statements

H302+H332	Harmful if swallowed or if inhaled.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P501	Dispose of contents/container to Waste management.

Special labelling of certain mixtures

Restricted to professional users.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: OPb

Molecular weight: 223,20

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
	lead compounds with the exception of those specified elsewhere in this Annex	100 %
	Repr. Cat. 1, Repr. Cat. 3, Xn - Harmful, N - Dangerous for the environment R61-62-20/22-33-50-53	
082-001-00-6	Repr. 1A, Acute Tox. 4, Acute Tox. 4, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H360Df H332 H302 H373 ** H400 H410	

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

Wash with plenty of water. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Medical treatment necessary.

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

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust. Do not breathe dust.

Advice on protection against fire and explosion

Only use the material in places where open light, fire and other flammable sources can be kept away.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary . When using do not eat or drink.

Eye/face protection

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

Hand protection

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

Skin protection

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient , respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	yellow
Odour:	No data available

		Test method
pH-Value (at 20 °C):	9,9	100 g/l

Changes in the physical state

Melting point:	886 °C
Initial boiling point and boiling range:	No data available
Sublimation point:	No data available
Softening point:	No data available
Flash point:	No data available

Flammability

Solid:	No data available
Gas:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Ignition temperature:	No data available

Auto-ignition temperature

Solid:	No data available
Gas:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available

Density:	9,53 g/cm³
Water solubility:	No data available
Partition coefficient:	No data available
Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Flow time:	No data available
Vapour density:	No data available
Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available

9.2. Other information

Solid content: No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

Toxicological data are not available.

Acute toxicity

Toxic. Acute inhalation toxicity. Acute oral toxicity.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
	lead compounds with the exception of those specified elsewhere in this Annex				
	oral	ATE	500 mg/kg		
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		

Irritation and corrosivity

No data available

Sensitising effects

No data available

Severe effects after repeated or prolonged exposure

Danger of serious damage to health by prolonged exposure.

Carcinogenic/mutagenic/toxic effects for reproduction

May impair fertility. May damage the unborn child.

Specific effects in experiment on an animal

No data available

Additional information on tests

This mixture is classified as hazardous according to 1999/45/EC. Special hazards arising from the substance or mixture!

Practical experience

Observations relevant to classification

No data available

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 2291
14.2. UN proper shipping name:	LEAD COMPOUND, SOLUBLE, N.O.S.
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1
Classification code:	T5
Special Provisions:	199 274 535
Limited quantity:	5 kg
Transport category:	2
Hazard No:	60
Tunnel restriction code:	E

Other applicable information (land transport)

E1

Inland waterways transport (ADN)

14.1. UN number:	UN 2291
14.2. UN proper shipping name:	LEAD COMPOUND, SOLUBLE, N.O.S.
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1
Classification code:	T5
Special Provisions:	199 274 535 802
Limited quantity:	5 kg

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number:	UN 2291
14.2. UN proper shipping name:	LEAD COMPOUND, SOLUBLE, N.O.S.
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1
Marine pollutant:	P
Special Provisions:	199, 274
Limited quantity:	5 kg
EmS:	F-A, S-A

Other applicable information (marine transport)

E1

Air transport (ICAO)

14.1. UN number:	UN 2291
14.2. UN proper shipping name:	LEAD COMPOUND, SOLUBLE, N.O.S.
14.3. Transport hazard class(es):	6.1

14.4. Packing group: III

Hazard label:	6.1
Special Provisions:	A92
Limited quantity Passenger:	10 kg
IATA-packing instructions - Passenger:	670
IATA-max. quantity - Passenger:	100 kg
IATA-packing instructions - Cargo:	677
IATA-max. quantity - Cargo:	200 kg

Other applicable information (air transport)

E1

: Y645

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

SECTION 15: Regulatory information

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

EU regulatory information

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information

Water contaminating class (D): 3 - highly water contaminating

SECTION 16: Other information

Relevant R-phrases (Number and full text)

20/22	Harmful by inhalation and if swallowed.
33	Danger of cumulative effects.
50	Very toxic to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.
61	May cause harm to the unborn child.
62	Possible risk of impaired fertility.

Relevant H- and EUH-phrases (Number and full text)

H302	Harmful if swallowed.
H302+H332	Harmful if swallowed or if inhaled.
H332	Harmful if inhaled.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.