API Modified Calcium

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 12/05/2022 Revision date: 23/01/2023 Supersedes version of: 27/12/2022 Version: 2.2

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

1.1. Product identifier

Product form : Mixture

Trade name : API Modified Calcium

Product code : J266

Product group : Mixtures

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Whitmore Manufacturing LLC
930 Whitmore Drive
75087 Rockwall, Texas
USA
T 1.972.771.1000
Regulatory@whitmores.com - www.jetlube.com

Distributor

Whitmore Europe Limited
Unit 9
Foster Avenue, Woodside Park Industrial Estate
Dunstable, Bedfordshire , LU5 5TA
United Kingdom
T +44 1707 379870
Regulatory@whitmores.com - www.whitmores.com

1.4. Emergency telephone number

Emergency number : For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
Within USA and Canada: 1.800.424.9300
Outside USA and Canada: +1.703.527.3887
(collect calls accepted)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	Chemtrec - United Kingdom	London	Local (City) +44 20 3807 3798	
United Kingdom	Chemtrec - United Kingdom		Local (National) +44 870 820 0418	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2	H319
Carcinogenicity, Category 1B	H350
Reproductive toxicity, Category 1A	H360
Reproductive toxicity, Additional category, Effects on or via lactation	H362
Specific target organ toxicity – Repeated exposure, Category 1	H372
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause cancer. May cause harm to breast-fed children. Causes damage to organs through prolonged or repeated exposure. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07 GHS08 GHS09

Signal word (CLP)	: Danger
Contains	: lead massive: [particle diameter ≥1mm]
Hazard statements (CLP)	: H319 - Causes serious eye irritation. H350 - May cause cancer. H360 - May damage fertility or the unborn child. H362 - May cause harm to breast-fed children. H372 - Causes damage to organs through prolonged or repeated exposure. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P263 - Avoid contact during pregnancy and while nursing. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 - Get medical advice/attention if you feel unwell. P337+P313 - If eye irritation persists: Get medical advice/attention. P391 - Collect spillage. P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Zinc (7440-66-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
zinc oxide (1314-13-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
lead monoxide (1317-36-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
cadmium oxide, stabilized (1306-19-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
graphite (7782-42-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
calcium oxide (1305-78-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
calcium carbonate (471-34-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
magnesium oxide (1309-48-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Calciumhydroxide(Ca(OH)2) (1305-62-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
silicon dioxide, amorphous (7631-86-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
copper (7440-50-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
lead massive: [particle diameter ≥1mm] (7439-92-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
lead massive: [particle diameter ≥1mm](7439-92-1)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
lead monoxide(1317-36-8)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
cadmium oxide, stabilized(1306-19-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
lead massive: [particle diameter ≥1mm] substance listed as REACH Candidate (Lead) substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 7439-92-1 EC-No.: 231-100-4 EC Index-No.: 082-014-00-7	29.4098 – 29.55985	Carc. 1B, H350 Repr. 1A, H360 Lact., H362 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
graphite substance with national workplace exposure limit(s) (GB)	CAS-No.: 7782-42-5 EC-No.: 231-955-3	17.8125 – 18.675	Aquatic Chronic 2, H411
Zinc	CAS-No.: 7440-66-6 EC-No.: 231-175-3 EC Index-No.: 030-001-01-9	11.4 – 12	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
copper substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 7440-50-8 EC-No.: 231-159-6 EC Index-No.: 029-019-01-X	3.1	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
calcium oxide substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 1305-78-8 EC-No.: 215-138-9	1.47 – 1.5	Eye Dam. 1, H318 Skin Irrit. 2, H315 STOT SE 3, H335
quartz, 1%≤conc respirable crystalline silica<10% substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 14808-60-7 EC-No.: 238-878-4	0.0765 – 0.85125	Not classified
zinc oxide	CAS-No.: 1314-13-2 EC-No.: 215-222-5 EC Index-No.: 030-013-00-7	< 0.6	Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Calciumhydroxide(Ca(OH)2) substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 1305-62-0 EC-No.: 215-137-3	0.1792896 – 0.1811572	Skin Corr. 1, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412
calcium carbonate substance with national workplace exposure limit(s) (GB)	CAS-No.: 471-34-1 EC-No.: 207-439-9	0.03121394 – 0.0332683	Not classified
magnesium oxide substance with national workplace exposure limit(s) (GB)	CAS-No.: 1309-48-4 EC-No.: 215-171-9	0.03074704 – 0.03102718	Not classified

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
lead monoxide substance listed as REACH Candidate (Lead monoxide (lead oxide)) substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 1317-36-8 EC-No.: 215-267-0 EC Index-No.: 082-001-00-6	≤ 0.024	Repr. 1A, H360Df Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
cadmium oxide, stabilized substance listed as REACH Candidate (Cadmium oxide) substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 1306-19-0 EC-No.: 215-146-2 EC Index-No.: 048-002-00-0	≤ 0.0072	Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Inhalation), H330 Muta. 2, H341 Carc. 1B, H350 Repr. 2, H361fd STOT RE 1, H372 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
silicon dioxide, amorphous substance with national workplace exposure limit(s) (GB)	CAS-No.: 7631-86-9 EC-No.: 231-545-4	0 – 0.0028014	Not classified

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
lead monoxide	CAS-No.: 1317-36-8 EC-No.: 215-267-0 EC Index-No.: 082-001-00-6	(0.5 ≤C < 100) STOT RE 2, H373 (2.5 ≤C < 100) Repr. 2, H361f

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact during pregnancy/while nursing. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

lead monoxide (1317-36-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	0.15 mg/m³
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	0.15 mg/m³

cadmium oxide, stabilized (1306-19-0)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	0.001 mg/m³ (Inhalable fraction. Limit value 0,004 mg/m3 until 11 July 2027. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine.)
United Kingdom - Occupational Exposure Limits	
Local name	Cadmium oxide
WEL TWA (OEL TWA) [1]	0.025 mg/m³ fume (as Cd)
WEL STEL (OEL STEL)	0.05 mg/m³ fume (as Cd)
Remark	Carc (Capable of causing cancer and/or heritable genetic damage)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

graphite (7782-42-5)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	10 mg/m³ 4 mg/m³

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Silica crystaline (Quartz)
IOEL TWA	0.05 mg/m³ (respirable dust)
Remark	(Year of adoption 2003)

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Regulatory reference	SCOEL Recommendations
United Kingdom - Occupational Exposure Limits	
Local name	Silica
WEL TWA (OEL TWA) [1]	0.1 mg/m³ respirable crystalline
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

calcium oxide (1305-78-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Calcium oxide
IOEL TWA	1 mg/m³ (Respirable fraction)
IOEL STEL	4 mg/m³ (Respirable fraction)
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
United Kingdom - Occupational Exposure Limits	
Local name	Calcium oxide
WEL TWA (OEL TWA) [1]	2 mg/m³ 1 mg/m³ Respirable fraction
WEL STEL (OEL STEL)	4 mg/m³ Respirable fraction
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

calcium carbonate (471-34-1)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	10 mg/m³ 4 mg/m³

magnesium oxide (1309-48-4)	
United Kingdom - Occupational Exposure Limits	
Local name	Magnesium oxide
WEL TWA (OEL TWA) [1]	4 mg/m³ (as Mg) fume and respirable dust 10 mg/m³ (as Mg) inhalable dust fume
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

Calciumhydroxide(Ca(OH)2) (1305-62-0)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Calcium dihydroxide
IOEL TWA	1 mg/m³ (Respirable fraction)
IOEL STEL	4 mg/m³ (Respirable fraction)
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
United Kingdom - Occupational Exposure Limits	
Local name	Calcium hydroxide
WEL TWA (OEL TWA) [1]	5 mg/m³ 1 mg/m³ Respirable fraction
WEL STEL (OEL STEL)	4 mg/m³ Respirable fraction
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

silicon dioxide, amorphous (7631-86-9)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	6 mg/m³ 2.4 mg/m³

copper (7440-50-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Copper Kobber
IOEL TWA	0.01 mg/m³ (respirable fraction)
Remark	(Year of adoption 2014) (Adopsjonsår 2014)
Regulatory reference	SCOEL Recommendations SCOEL anbefalinger
United Kingdom - Occupational Exposure Limits	
Local name	Copper
WEL TWA (OEL TWA) [1]	0.2 mg/m³
WEL STEL (OEL STEL)	2 mg/m³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

lead massive: [particle diameter ≥1mm] (7439-92-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Inorganic lead and its compounds Uorganisk bly og dets forbindelser
IOEL TWA	0.15 mg/m³ (BOEL)
Remark	Inorganic lead (lead fumes and dusts of < 10 µm) (Year of adoption 2002) Uorganisk bly (blydamp og -støv < 10 µm) (adopsjonsår 2002)
Regulatory reference	COUNCIL DIRECTIVE 98/24/EC RÅDSDIREKTIV 98/24/EF
EU - Binding Occupational Exposure Limit (BOEL)	
Local name	Inorganic lead and its compounds Uorganisk bly og dets forbindelser
BOEL TWA	0.15 mg/m³
Regulatory reference	COUNCIL DIRECTIVE 98/24/EC RÅDSDIREKTIV 98/24/EF
EU - Biological Limit Value (BLV)	
Local name	Lead and its inorganic compounds Bly og dets uorganiske forbindelser
BLV	30 µg/100ml Parameter: Pb
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs SCOEL Liste over anbefalte helsebaserte BLV-er og BGV-er
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	0.15 mg/m³

8.1.2. Recommended monitoring procedures
No additional information available

8.1.3. Air contaminants formed
No additional information available

8.1.4. DNEL and PNEC
No additional information available

8.1.5. Control banding
No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Wear eye protection

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Neoprene or nitrile rubber gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR)	6 (> 480 minutes)	> 0.6 mm		

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Metallic.
Appearance	: Paste.
Odour	: petroleum-like odour.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Not available
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: > 221 °C Cleveland Open Cup Method
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: > 22 mm²/s @ 40 °C
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Zinc (7440-66-6)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 5.41 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

zinc oxide (1314-13-2)	
LD50 oral rat	> 5000 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.7 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))

lead monoxide (1317-36-8)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.05 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
ATE CLP (oral)	500 mg/kg bodyweight
ATE CLP (gases)	4500 ppmv/4h
ATE CLP (vapours)	11 mg/l/4h
ATE CLP (dust,mist)	1.5 mg/l/4h

cadmium oxide, stabilized (1306-19-0)	
LD50 oral rat	2330 mg/kg bodyweight (Rat, Read-across, Oral)
LD50 oral	72 mg/kg
LC50 Inhalation - Rat	0.056 mg/l (4 h, Rat, Male / female, Read-across, Inhalation (aerosol), (Cd 2+))
LC50 Inhalation - Rat (Dust/Mist)	0.012 mg/l/4h
ATE CLP (oral)	72 mg/kg bodyweight
ATE CLP (gases)	100 ppmv/4h

cadmium oxide, stabilized (1306-19-0)	
ATE CLP (vapours)	0.056 mg/l/4h
ATE CLP (dust,mist)	0.012 mg/l/4h
graphite (7782-42-5)	
LD50 oral rat	> 2000 mg/kg (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 2000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))
LC50 Inhalation - Rat (Dust/Mist)	> 2 mg/l Source: ECHA
calcium oxide (1305-78-8)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LD50 oral	5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: other:US Federal Register 38: 187, Part 1500, Section 41, 1973.
ATE CLP (oral)	5000 mg/kg bodyweight
calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LC50 Inhalation - Rat	> 3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
magnesium oxide (1309-48-4)	
LD50 oral rat	> 5000 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Rabbit, Literature study, Dermal)
Calciumhydroxide(Ca(OH)2) (1305-62-0)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2500 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 6.04 mg/l (OECD 436: Acute inhalation toxicity-acute toxic class method, 4 h, Rat, Male / female, Experimental value, Inhalation (dust), 15 day(s))
silicon dioxide, amorphous (7631-86-9)	
LD50 oral rat	> 10000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Dermal)
copper (7440-50-8)	
LD50 oral rat	300 – 500 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5.11 mg/l (OECD 436: Acute inhalation toxicity-acute toxic class method, 4 h, Rat, Male / female, Experimental value, Inhalation)
ATE CLP (oral)	300 mg/kg bodyweight
lead massive: [particle diameter ≥1mm] (7439-92-1)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)

lead massive: [particle diameter ≥1mm] (7439-92-1)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.05 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

zinc oxide (1314-13-2)	
pH	6.07 – 6.55 (2.9 mg/l, 20 °C, OECD 105: Water Solubility)

lead monoxide (1317-36-8)	
pH	9.9 (100 g/l)

cadmium oxide, stabilized (1306-19-0)	
pH	No data available in the literature

graphite (7782-42-5)	
pH	7 (1.3 %)

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
pH	5 – 8 (40 %, 20 °C)

calcium oxide (1305-78-8)	
pH	12.8 Temp.: 25 °C Concentration: 1,65 g/L

calcium carbonate (471-34-1)	
pH	8 – 9 (10 %, 20 °C)

magnesium oxide (1309-48-4)	
pH	11 (10 %)

Calciumhydroxide(Ca(OH)2) (1305-62-0)	
pH	≥ 12.4 Temp.: 20 °C Concentration:

silicon dioxide, amorphous (7631-86-9)	
pH	6.5 – 7.5 (5 %)

copper (7440-50-8)	
pH	No data available in the literature

Serious eye damage/irritation : Causes serious eye irritation.

zinc oxide (1314-13-2)	
pH	6.07 – 6.55 (2.9 mg/l, 20 °C, OECD 105: Water Solubility)

lead monoxide (1317-36-8)	
pH	9.9 (100 g/l)

cadmium oxide, stabilized (1306-19-0)	
pH	No data available in the literature

graphite (7782-42-5)	
pH	7 (1.3 %)

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
pH	5 – 8 (40 %, 20 °C)

calcium oxide (1305-78-8)	
pH	12.8 Temp.: 25 °C Concentration: 1,65 g/L

calcium carbonate (471-34-1)	
pH	8 – 9 (10 %, 20 °C)

magnesium oxide (1309-48-4)	
pH	11 (10 %)

Calciumhydroxide(Ca(OH)2) (1305-62-0)	
pH	≥ 12.4 Temp.: 20 °C Concentration:

silicon dioxide, amorphous (7631-86-9)	
pH	6.5 – 7.5 (5 %)

copper (7440-50-8)	
pH	No data available in the literature

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : May cause cancer.

lead monoxide (1317-36-8)	
IARC group	2A - Probably carcinogenic to humans

cadmium oxide, stabilized (1306-19-0)	
IARC group	1 - Carcinogenic to humans

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
IARC group	1 - Carcinogenic to humans

silicon dioxide, amorphous (7631-86-9)	
IARC group	3 - Not classifiable

lead massive: [particle diameter ≥1mm] (7439-92-1)	
IARC group	2A - Probably carcinogenic to humans

Reproductive toxicity : May damage fertility or the unborn child. May cause harm to breast-fed children.

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

calcium oxide (1305-78-8)	
STOT-single exposure	May cause respiratory irritation.

Calciumhydroxide(Ca(OH)2) (1305-62-0)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Zinc (7440-66-6)	
NOAEL (oral, rat, 90 days)	31.52 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

zinc oxide (1314-13-2)	
LOAEL (dermal, rat/rabbit, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEL (oral, rat, 90 days)	31.52 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

lead monoxide (1317-36-8)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

cadmium oxide, stabilized (1306-19-0)	
STOT-repeated exposure	Causes damage to organs (bone, lungs, kidneys) through prolonged or repeated exposure (if inhaled).

graphite (7782-42-5)	
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.000279 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

calcium oxide (1305-78-8)	
LOAEL (oral, rat, 90 days)	300 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.413 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

calcium carbonate (471-34-1)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

lead massive: [particle diameter ≥1mm] (7439-92-1)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

API Modified Calcium	
Viscosity, kinematic	> 22 mm²/s @ 40 °C

Zinc (7440-66-6)	
Viscosity, kinematic	> 72.464 mm²/s

cadmium oxide, stabilized (1306-19-0)	
Viscosity, kinematic	Not applicable (solid)

calcium oxide (1305-78-8)	
Viscosity, kinematic	230.303 mm²/s

calcium carbonate (471-34-1)	
Viscosity, kinematic	Not applicable (solid)

copper (7440-50-8)	
Viscosity, kinematic	Not applicable (solid)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short–term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long–term (chronic) : Very toxic to aquatic life with long lasting effects.

Not rapidly degradable

Zinc (7440-66-6)	
LC50 - Fish [1]	0.169 mg/l
LC50 - Fish [2]	0.78 mg/l
EC50 - Crustacea [1]	1.833 mg/l
ErC50 algae	0.15 mg/l

zinc oxide (1314-13-2)	
LC50 - Fish [1]	0.169 mg/l (ASTM E729-88, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Read-across, Zinc ion)
EC50 - Crustacea [1]	0.098 mg/l
NOEC chronic algae	0.0299 mg/l

lead monoxide (1317-36-8)	
LC50 - Fish [1]	1170 µg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)

lead monoxide (1317-36-8)	
LC50 - Fish [2]	107 µg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
ErC50 algae	388 µg/l (OECD 201: Alga, Growth Inhibition Test, 48 h, Chlorella sp., Static system, Fresh water, Experimental value, Respiration)

cadmium oxide, stabilized (1306-19-0)	
LC50 - Fish [1]	748 µg/l (4 day(s), Carassius auratus, Flow-through system, Fresh water, Read-across, Nominal concentration)
ErC50 algae	0.09 mg/l

graphite (7782-42-5)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Crustacea [1]	> 100 mg/l
EC50 72h - Algae [1]	19 mg/l
EC50 72h - Algae [2]	7.2 mg/l
ErC50 algae	> 100 mg/l
NOEC (chronic)	47 mg/l

calcium oxide (1305-78-8)	
LC50 - Fish [1]	387 mg/l Test organisms (species): Poecilia reticulata
EC50 - Crustacea [1]	≥ 159.6 mg/l (EPA OPP 72-2, 24 h, Crustacea, Static system, Fresh water, Experimental value, Lethal)
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	1130.3 mg/l Test organisms (species): Navicula seminulum
NOEC chronic fish	100 mg/l Test organisms (species): other:Tilapia nilotica Duration: '46 d'

calcium carbonate (471-34-1)	
LC50 - Fish [1]	> 100 % (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Saturated solution)
EC50 - Crustacea [1]	> 100 % (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Saturated solution)
EC50 72h - Algae [1]	> 14 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [1]	22000 mg/l Source: Ecological Structure Activity Relationships

Calciumhydroxide(Ca(OH)2) (1305-62-0)	
LC50 - Fish [1]	50.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	49.1 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h - Algae [1]	184.57 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

silicon dioxide, amorphous (7631-86-9)	
LC50 - Fish [1]	> 10000 mg/l (96 h, Brachydanio rerio, Literature)
EC50 - Crustacea [1]	> 10000 mg/l (24 h, Daphnia magna, Literature)
EC50 72h - Algae [1]	440 mg/l (Selenastrum capricornutum, Literature, Growth rate)

copper (7440-50-8)	
LC50 - Fish [1]	1.25 mg/l (APHA, 96 h, Cyprinus carpio, Fresh water, Experimental value)
EC50 - Crustacea [1]	0.03 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

lead massive: [particle diameter ≥1mm] (7439-92-1)	
LC50 - Fish [1]	1170 µg/l
LC50 - Fish [2]	107 µg/l

12.2. Persistence and degradability

zinc oxide (1314-13-2)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

lead monoxide (1317-36-8)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

cadmium oxide, stabilized (1306-19-0)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

calcium oxide (1305-78-8)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

calcium carbonate (471-34-1)	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

magnesium oxide (1309-48-4)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

Calciumhydroxide(Ca(OH)2) (1305-62-0)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

silicon dioxide, amorphous (7631-86-9)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

copper (7440-50-8)	
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

Zinc (7440-66-6)	
BCF - Other aquatic organisms [1]	116
Partition coefficient n-octanol/water (Log Pow)	-0.47
zinc oxide (1314-13-2)	
Partition coefficient n-octanol/water (Log Pow)	1.53 (Estimated value)
Bioaccumulative potential	Slightly or not bioaccumulative.
lead monoxide (1317-36-8)	
Bioaccumulative potential	Bioaccumulative potential.
cadmium oxide, stabilized (1306-19-0)	
BCF - Fish [1]	1385 (92 day(s), Salmo salar, Flow-through system, Fresh water, Read-across, Fresh weight)
Bioaccumulative potential	Slightly or not bioaccumulative.
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Bioaccumulative potential	Bioaccumulation unlikely.
calcium carbonate (471-34-1)	
Partition coefficient n-octanol/water (Log Pow)	-2.12 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
magnesium oxide (1309-48-4)	
Bioaccumulative potential	Not applicable.
Calciumhydroxide(Ca(OH)2) (1305-62-0)	
Bioaccumulative potential	Not bioaccumulative.
silicon dioxide, amorphous (7631-86-9)	
Bioaccumulative potential	Not bioaccumulative.
copper (7440-50-8)	
Bioaccumulative potential	Not bioaccumulative.
lead massive: [particle diameter ≥1mm] (7439-92-1)	
Partition coefficient n-octanol/water (Log Pow)	0.73 (estimated value)

12.4. Mobility in soil

zinc oxide (1314-13-2)	
Surface tension	Not applicable
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.2 (log Koc, Literature study)
lead monoxide (1317-36-8)	
Ecology - soil	Adsorbs into the soil.
cadmium oxide, stabilized (1306-19-0)	
Surface tension	No data available
Ecology - soil	Adsorbs into the soil.
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Ecology - soil	Low potential for mobility in soil.
calcium oxide (1305-78-8)	
Ecology - soil	No (test) data on mobility of the substance available.

calcium carbonate (471-34-1)	
Mobility in soil	4.971 Source: Quantitative Structure Activity Relation
Ecology - soil	Adsorbs into the soil.

Calciumhydroxide(Ca(OH)2) (1305-62-0)	
Ecology - soil	Adsorbs into the soil.

silicon dioxide, amorphous (7631-86-9)	
Ecology - soil	No (test) data on mobility of the substance available.

copper (7440-50-8)	
Ecology - soil	No (test) data on mobility of the substance available.

lead massive: [particle diameter ≥1mm] (7439-92-1)	
Ecology - soil	Product adsorbs onto the soil.

12.5. Results of PBT and vPvB assessment

Component	
Zinc (7440-66-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
zinc oxide (1314-13-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
lead monoxide (1317-36-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
cadmium oxide, stabilized (1306-19-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
graphite (7782-42-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
calcium oxide (1305-78-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
calcium carbonate (471-34-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
magnesium oxide (1309-48-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Calciumhydroxide(Ca(OH)2) (1305-62-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
silicon dioxide, amorphous (7631-86-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
copper (7440-50-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
lead massive: [particle diameter ≥1mm] (7439-92-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

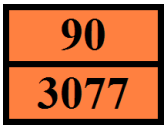
In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3077	UN 3077	UN 3077	UN 3077	UN 3077
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : lead massive: [particle diameter ≥1mm])	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : lead massive: [particle diameter ≥1mm])	Environmentally hazardous substance, solid, n.o.s. (CONTAINS : lead massive: [particle diameter ≥1mm])	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : lead massive: [particle diameter ≥1mm])	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : lead massive: [particle diameter ≥1mm])
Transport document description				
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : lead massive: [particle diameter ≥1mm]), 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : lead massive: [particle diameter ≥1mm]), 9, III, MARINE POLLUTANT	UN 3077 Environmentally hazardous substance, solid, n.o.s. (CONTAINS : lead massive: [particle diameter ≥1mm]), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : lead massive: [particle diameter ≥1mm]), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : lead massive: [particle diameter ≥1mm]), 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: M7
Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 5kg
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P002, IBC08, LP02, R001
Special packing provisions (ADR)	: PP12, B3
Mixed packing provisions (ADR)	: MP10
Portable tank and bulk container instructions (ADR)	: T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAV, LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V13
Special provisions for carriage - Bulk (ADR)	: VC1, VC2
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90

Orange plates : 

Tunnel restriction code (ADR) : -

EAC code : 2Z

Transport by sea

Special provisions (IMDG) : 274, 335, 966, 967, 969

Limited quantities (IMDG) : 5 kg

Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : LP02, P002

Special packing provisions (IMDG) : PP12

IBC packing instructions (IMDG) : IBC08

IBC special provisions (IMDG) : B3

Tank instructions (IMDG) : BK1, BK2, BK3, T1

Tank special provisions (IMDG) : TP33

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-F

Stowage category (IMDG) : A

Stowage and handling (IMDG) : SW23

Air transport

PCA Excepted quantities (IATA) : E1

PCA Limited quantities (IATA) : Y956

PCA limited quantity max net quantity (IATA) : 30kgG

PCA packing instructions (IATA) : 956

PCA max net quantity (IATA) : 400kg

CAO packing instructions (IATA) : 956

CAO max net quantity (IATA) : 400kg

Special provisions (IATA) : A97, A158, A179, A197, A215

ERG code (IATA) : 9L

Inland waterway transport

Classification code (ADN) : M7

Special provisions (ADN) : 274, 335, 375, 601

Limited quantities (ADN) : 5 kg

Excepted quantities (ADN) : E1

Carriage permitted (ADN) : T* B**

Equipment required (ADN) : PP, A***

Number of blue cones/lights (ADN) : 0

Additional requirements/Remarks (ADN) : * Only in the molten state. ** For carriage in bulk see also 7.1.4.1. ** * Only in the case of transport in bulk.

Rail transport

Classification code (RID) : M7

Special provisions (RID) : 274, 335, 375, 601

Limited quantities (RID) : 5kg

Excepted quantities (RID) : E1

Packing instructions (RID) : P002, IBC08, LP02, R001

Special packing provisions (RID) : PP12, B3

Mixed packing provisions (RID) : MP10

Portable tank and bulk container instructions (RID) : T1, BK1, BK2, BK3

Portable tank and bulk container special provisions (RID) : TP33

Tank codes for RID tanks (RID) : SGAV, LGBV

Transport category (RID) : 3

Special provisions for carriage – Packages (RID)	: W13
Special provisions for carriage – Bulk (RID)	: VC1, VC2
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW31
Colis express (express parcels) (RID)	: CE11
Hazard identification number (RID)	: 90

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations ≥ 0.1 % or SCL: Lead monoxide (lead oxide) (EC 215-267-0, CAS 1317-36-8), Cadmium oxide (EC 215-146-2, CAS 1306-19-0), Lead (EC 231-100-4, CAS 7439-92-1)

PIC Regulation (Prior Informed Consent)

Contains substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals): lead monoxide (1317-36-8), cadmium oxide (non-pyrophoric) (1306-19-0)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer

Abbreviations and acronyms:	
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 1B	Carcinogenicity, Category 1B
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.

Full text of H- and EUH-statements:	
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H361f	Suspected of damaging fertility.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H362	May cause harm to breast-fed children.
H372	Causes damage to organs through prolonged or repeated exposure.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Lact.	Reproductive toxicity, Additional category, Effects on or via lactation
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 1A	Reproductive toxicity, Category 1A
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.