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

1.1. Product identifier

Product form : Substance
Trade name/designation : LEAD (Massive)
Chemical name : Lead
EC-No. : 231-100-4
CAS-No. : 7439-92-1
REACH registration No : 01-2119513221-59-0081

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Industrial

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Trafigura Ventures V.B.V.
Evert van de Beekstraat 1-82
The Base, Tower B - 5th Floor
1118 CL Schiphol - The Netherlands
T +31 20 504 1800
TrafiguraReach@trafigura.com

1.4. Emergency telephone number

Emergency number : +32 3 575 03 30
This telephone number is available 24 hours per day, 7 days per week.

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Lact. H362
Repr. 1A H360
STOT RE 1 H372

Full text of H statements : see section 16

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS08

Signal word : Danger

Hazard statements (CLP) : 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.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.
P260 - Do not breathe dust, fume.
P263 - Avoid contact during pregnancy and while nursing.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P308+P313 - IF exposed or concerned: Get medical advice.
P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Other hazards : PBT/vPvB data : Not applicable .

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name : LEAD (Massive)

CAS-No. : 7439-92-1

EC-No. : 231-100-4

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lead	(CAS-No.) 7439-92-1 (EC-No.) 231-100-4 (EC Index) 082-014-00-7 (REACH-no) 01-2119513221-59-0081	100	Lact., H362 Repr. 1A, H360FD STOT RE 1, H372

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice : Never give anything by mouth to an unconscious person. Show this safety data sheet to the doctor in attendance. Symptoms may be delayed. Treat symptomatically. In case of doubt or persistent symptoms, consult always a physician.

Inhalation : Provide fresh air. Keep at rest. In case of shortness of breath, give oxygen. In case of doubt or persistent symptoms, consult always a physician.

Skin contact : After contact with skin, wash immediately with plenty of water and soap.

Eyes contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion : Clean mouth with water and drink afterwards plenty of water. If ingested, induce vomiting. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

Inhalation : No adverse effects are expected. Heavy metals may be released in hazardous concentrations in the form of dusts or fumes. Inhalation of high vapour concentrations can cause CNS-depression and narcosis. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Vapours may cause drowsiness and dizziness. Symptoms may be delayed.

Skin contact : No adverse effects are expected.

Eyes contact : No adverse effects are expected.

Ingestion : No adverse effects are expected.

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 : Special powder against metal fire.

Unsuitable extinguishing media : Water. Halogenated compounds.

5.2. Special hazards arising from the substance or mixture

Specific hazards : Heavy metals may be released in hazardous concentrations in the form of dusts or fumes (see sections 2 & 10).

Hazardous decomposition products in case of fire : Lead oxide.

5.3. Advice for firefighters

Firefighting instructions : Special protective equipment for firefighters. Do not allow run-off from fire-fighting to enter drains or water courses. See also section 8.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

For non-emergency personnel : Provide adequate ventilation. Do not breathe dust. Do not breathe vapour/aerosol. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8.

6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up mechanically and collect in suitable container for disposal.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid dust formation. Avoid contact with skin and eyes. Do not breathe vapours/dust. Concerning personal protective equipment to use, see section 8.

Hygiene measures : Keep good industrial hygiene. Wash hands and face before breaks and immediately after handling of the product. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Do not store near or with any of the incompatible materials listed in section 10. Store in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Lead (7439-92-1)		
Austria	MAK (mg/m³)	0,1 mg/m³ (inhalable fraction)
Austria	MAK Short time value (mg/m³)	0,4 mg/m³ (inhalable fraction)
Bulgaria	OEL TWA (mg/m³)	0,05 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	0,15 mg/m³
Cyprus	OEL TWA (mg/m³)	0,15 mg/m³
Czech Republic	Expoziční limity (PEL) (mg/m³)	0,05 mg/m³
Denmark	Grænseværdie (langvarig) (mg/m³)	0,05 mg/m³ (dust, fume and powder)
Estonia	OEL TWA (mg/m³)	0,1 mg/m³ (total dust) 0,05 mg/m³ (respirable dust)
Finland	HTP-arvo (8h) (mg/m³)	0,1 mg/m³ (all works)
France	VME (mg/m³)	0,1 mg/m³ (restrictive limit)
Germany	TRGS 903 (BGW)	300 µg/l Parameter: Lead - Medium: whole blood - Sampling time: no restriction (women age below 45 years) 400 µg/l Parameter: Lead - Medium: whole blood - Sampling time: no restriction
Gibraltar	8h mg/m3	0,15 mg/m³
Greece	OEL TWA (mg/m³)	0,15 mg/m³
Hungary	AK-érték	0,15 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	0,15 mg/m³
Ireland	OEL (15 min ref) (mg/m3)	0,45 mg/m³ (calculated)
Italy	OEL TWA (mg/m³)	0,075 mg/m³
Latvia	OEL TWA (mg/m³)	0,005 mg/m³
Lithuania	IPRV (mg/m³)	0,15 mg/m³ (inhalable fraction) 0,07 mg/m³ (respirable fraction)
Luxembourg	OEL TWA (mg/m³)	0,15 mg/m³
Netherlands	Grenswaarde TGG 8H (mg/m³)	0,15 mg/m³
Poland	NDS (mg/m³)	0,05 mg/m³
Portugal	OEL TWA (mg/m³)	0,15 mg/m³ (mandatory indicative limit value)
Romania	OEL TWA (mg/m³)	0,15 mg/m³

Lead (7439-92-1)		
Slovakia	NPHV (priemerná) (mg/m³)	0,15 mg/m³
Slovenia	OEL TWA (mg/m³)	0,1 mg/m³ (inhalable fraction)
Slovenia	OEL STEL (mg/m³)	0,4 mg/m³ (inhalable fraction)
Spain	VLA-ED (mg/m³)	0,15 mg/m³
Sweden	nivågränsvärde (NVG) (mg/m³)	0,1 mg/m³ (inhalable dust) 0,05 mg/m³ (respirable dust)
United Kingdom	WEL TWA (mg/m³)	0,15 mg/m³
United Kingdom	WEL STEL (mg/m³)	0,45 mg/m³ (calculated)
Norway	Grenseverdier (AN) (mg/m³)	0,05 mg/m³ (dust and fume)
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	0,15 mg/m³ (value calculated-dust and fume)
Switzerland	MAK (mg/m³)	0,1 mg/m³ (inhalable dust)
Switzerland	KZGW (mg/m³)	0,8 mg/m³ (inhalable dust)
Australia	TWA (mg/m³)	0,15 mg/m³ (dust and fume)
Canada (Quebec)	VEMP (mg/m³)	0,05 mg/m³
USA - ACGIH	ACGIH TWA (mg/m³)	0,05 mg/m³
USA - IDLH	US IDLH (mg/m³)	100 mg/m³
USA - NIOSH	NIOSH REL (TWA) (mg/m³)	0,05 mg/m³
USA - OSHA	OSHA PEL (TWA) (mg/m³)	50 µg/m³

8.2. Exposure controls

Engineering measure(s) : Do not breathe vapours, mist or gas. Use only in area provided with appropriate exhaust ventilation. Organisational measures to prevent /limit releases, dispersion and exposure. See also section 7 .

Hand protection : Protective gloves (EN 388).

Eye protection : Safety glasses (EN 166).

Body protection : Overalls, apron and boots recommended.

Respiratory protection : In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Full face mask (EN 136) (EN 136). Half-face mask (DIN EN 140) (EN 140). Filter type: BP(EN 141).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Solid.

Colour : Grey.

Odour : odourless.

Odour threshold : No data available

pH : Not applicable

Relative evaporation rate (butylacetate=1) : No data available

Melting / freezing point : 327 °C

Freezing point : No data available

Initial boiling point and boiling range : 1740 °C

Flash point : Not applicable

Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	Not applicable
Vapour density	:	Not applicable
Relative density	:	11,4
Solubility	:	Water: Insoluble
Partition coefficient n-octanol/water	:	Not applicable
Kinematic viscosity	:	No data available
Dynamic viscosity	:	No data available
Explosive properties	:	Not applicable.
Oxidising properties	:	Not applicable.
Explosive limits	:	Not applicable

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reference to other sections: 10.5.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

Heating can release hazardous gases.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. See also section 7. Handling and storage .

10.5. Incompatible materials

Ammonium nitrate. Acids. Strong oxidizing agents. See also section 7. Handling and storage .

10.6. Hazardous decomposition products

Possible decomposition products are: Lead oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Not classified (Based on available data, the classification criteria are not met.)
Skin corrosion/irritation	:	Not classified (Based on available data, the classification criteria are not met.) pH: Not applicable
Serious eye damage/irritation	:	Not classified (Based on available data, the classification criteria are not met.) pH: Not applicable
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	:	Not classified (Based on available data, the classification criteria are not met.)
Reproductive toxicity	:	May cause harm to breast-fed children. May damage fertility or the unborn child. (Based on available data, the classification criteria are not met.)
STOT-single exposure	:	Not classified (Based on available data, the classification criteria are not met.)

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure. (Based on available data, the classification criteria are not met.)

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

Other information : Symptoms related to the physical, chemical and toxicological characteristics. Reference to other sections: 4.2.

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : Ecological injuries are not known or expected under normal use.

Lead (7439-92-1)	
LC50 fish 1	0,44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
EC50 Daphnia 1	600 µg/l (Exposure time: 48 h - Species: water flea)
LC50 fish 2	1,17 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

12.2. Persistence and degradability

LEAD (Massive) (7439-92-1)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

LEAD (Massive) (7439-92-1)	
Partition coefficient n-octanol/water	Not applicable

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

Additional information : Do not allow to enter into surface water or drains

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of as hazardous waste in compliance with local and national regulations. Refer to manufacturer/supplier for information on recovery/recycling.

Further ecological information : Should not be released into the environment.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

63. Lead and its compounds	LEAD (Massive)

LEAD (Massive) is not on the REACH Candidate List

LEAD (Massive) is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) nwg, Non-hazardous to water (KBwS-Beschluss; ID No. 1443)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : LEAD (Massive) is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : LEAD (Massive) is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : LEAD (Massive) is listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

SECTION 16: Other information

Indication of changes:

1		Modified	
2		Modified	
5		Modified	
15		Modified	
16		Modified	

Abbreviations and acronyms:

	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Code LEL = Lower Explosive Limit/Lower Explosion Limit UEL = Upper Explosion Limit/Upper Explosive Limit REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

Sources of key data used to compile the datasheet : http://ecb.jrc.ec.europa.eu http://toxnet.nlm.nih.gov/ International Lead Association.

Full text of H- and EUH-statements:

Lact.	Reproductive toxicity, Additional category, Effects on or via lactation
Repr. 1A	Reproductive toxicity, Category 1A
Repr. 1A	Reproductive toxicity, Category 1A
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
H360	May damage fertility or the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H362	May cause harm to breast-fed children.
H372	Causes damage to organs through prolonged or repeated exposure.

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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