

#### SAFETY INFORMATION SHEET

compiled in accordance to the COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 and the compliant Hungarian regulations

Reviewed on 29.07.2019

The nonpolarizing electrodes identified in section 1. are articles containing mixtures classified by the Directive 1999/45/ as not dangerous. It is not obligatory to issue MSDS. We intend the following description to present a safety information to the users.

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

#### 1.1. Product identifier

Trade name: WM or WL or WS or WLC nonpolarizing electrode

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

#### Relevant identified uses:

The WM or WL or WS or WLC nonpolarizing electrodes are sensors for geoelectric geoelectromagnetic measurements.

#### Uses advised against:

Do not usables as current supply electrodes.

# 1.3. Details of the supplier of the safety data sheet

Manufacturer:

WOLF Chemical Ltd.

1195 Budapest, Hofherr u. 3-15.

Phone/fax: +36 1 282-8881 Email: wolf@wolf.hu

# **Imergency telephone number**

WOLF Chemical Ltd., Farkas István, Phone/fax: 36. 1 282-8881

National Institute of Chemical Safety Health Toxicological Information Service,

Hungary Budapest, Phone: +36 80 20 11 99 (0-24 h, HU-EN)

### SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The nonpolarizing electrodes identified Section 1. are articles that contain mixtures classified as not dangerous by the Directive 1999/45/EC

# **2.2. Label elements** Not applicable.

#### 2.3. Other hazards

The product contains lead plate embedded inside the non dangerous mixture. In this situation the lead is not exposed.



#### SAFETY INFORMATION SHEET

compiled in accordance to the COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 and the compliant Hungarian regulations

Reviewed on 29.07.2019

# SECTION 3: Composition/information on ingredients

**3.1. Substances** Not applicable.

#### 3.2. Mixtures

The cylindrical body is made of PVC. The body is filled up with lead chloride (Pb-PbCl<sub>2</sub>) and salt saturated hard gel (henceforth matrix), and a lead plate spiral is cemented in it. The matrix does not contain dangerous substances over the tolerated maximum concentration.

% w/w	Ingredient	Identification	Classification
< 0,1	Lead(II)Chloride (The threshold limit of concentration for this subtance is 0,1 % w/w)	CAS No: 7758-95-4 EU No: 231-845-5 Index No: 082-001-00-6	CLP: Acute Tox. oral 4 H302, Acute Tox. inhalative 4 H332, Repr. H360Df, STOT RE 2 H373, Aquatic Chronic 1 H410

The tull text of H and R phrases see in the section 16.

#### SECTION 4: First aid measures

#### 4.1. Description of firt aid measures

*Inhalation:* is not probable exposure; first aid provision usually is not neccessery. *Skin contact:* is not probable exposure; first aid provision usually is not neccessery. *Eye contact:* is not probable exposure; first aid provision usually is not neccessery. *Ingestion:* is not probable exposure; first aid provision usually is not neccessery.

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

Inhalation: is not probable exposure. Skin contact: is not probable exposure. Eye contact: is not probable exposure. Ingestion: is not probable exposure.

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

There is no available information



### SAFETY INFORMATION SHEET

compiled in accordance to the COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 and the compliant Hungarian regulations

Reviewed on 29.07.2019

# SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: water spray, foam, extinguisher powder, carbon-dioxid.

#### 5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases may arise from the substance or mixture.

#### **5.3.** Advice for firefighters:

Usage of self-contained breathing apparatus, complete protecting clothes.

#### SECTION 6: Accidental release measures

# 6.1. Personal precautions, protective equipment and emergency procedures

Keep away from the direct contact with the matrix of the product. Wear gloves for setting, removing and maintaining (see the Section 7.) of the electrodes, also for removing the contaminated part of the ground

#### **6.2.** Environmental precautions:

Keep away from drains, surface and ground water.

Remove antód dispose the part of the ground if it came contaminated due to contact with the electrode matrix.

#### 6.3. Reference to other sections

See the sections 7., 8.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

No special measures of precaution are needed. Protect from physical damages.

#### **Conditions for safe storage, including any incompatibilities**

Beeing out of usage keep the electrodes in their container (plastic box) according to "direction for use" of the electrodes.

Store in indoor storage and protect from sunshine.

ep away from flammable media or acids.

### 7.3. Specific end use(s)

See the Section 1.2.



#### SAFETY INFORMATION SHEET

compiled in accordance to the COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 and the compliant Hungarian regulations

Reviewed on 29.07.2019

# SECTION 8: Exposure controls/personal protection 8.1. Control parameters

Occupational exposure limit values (OEL) for the substances in the mixture: LEAD and its inorganic compaunds (calculated as Pb equivalent): STEL (EU/Hungary, 15 min): 0,15 mg/m<sup>3</sup>

# 8.2. Exposure controls

General protective and hygienic measures: one has to keep the usual measures of manipulation with chemicals. It is prohibited the eating, drinking, and smoking while working. Need to wash hands at the pauses and at the end of works.

*Individual protection measures, such as personal protective equipment:* 

Bredhing protection: for proper use is not neccessery; in case of exposure due to accident one has to use close system brething apparat.

Eye protection (EN 166): for proper use is not necessary.

Hand protection:(EN 374): it is advised the wearing of protective gloves.

Skin and body protection(EN 465): wearing of working suit.

Environmental exposure controls: Keep away from drains, live surface and ground water.



#### SAFETY INFORMATION SHEET

compiled in accordance to the COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 and the compliant Hungarian regulations

Reviewed on 29.07.2019

# SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance: physical state: solid (gypsum saturated with PbCl)

*Color:* pale blue (see the bottom of the electrode)

Odor: not applicable

*PH*: 5-6

Melting point/freezing point: not applicable

*Initial boiling point and boiling range:* not applicable

Flash point: not applicable Evaporation rate: not applicable

Flammability (solid, gas): not applicable Upper/lower flammability: not applicable

Explosive limits: not explosive *Vapour pressure:* not applicable *Vapour density:* not applicable

Density: 1125 kg/m<sup>3</sup>

Solubility in water: not soluble

Degradation in water: 530 mg/l/10h (laboratory data).

Degradation into the ground and/or interface material: orders of magnitude smaller

than in water.

Partition coefficient: n-octanol/water: not available data

Auto-ignition temperature: not applicable Decomposition temperature: not available data

Viscosity: not viscouse

**9.2. Other information:** not available data

# **SECTION 10: Stability and reactivity**

- 10.1. Reactivity: not available data.
- **10.2. Chemical stability:** stable (under normal ambient and anticipated storage handling and usage conditions).
- **10.3. Possibility of hazardous reactions:** does not occurs (under normal ambient and anticipated storage, handling and usage conditions).
- **10.4. Conditions to avoid:** physical damage, contact of the surface of electrode with strong acids.
- **10.5. Incompatible materials:** strong acids.
- **10.6. Hazardous decomposition products:** does not arises under normal ambient and anticipated storage and handling, usage conditions; in case of fire see the section 5.



#### SAFETY INFORMATION SHEET

compiled in accordance to the COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 and the compliant Hungarian regulations

Reviewed on 29.07.2019

# SECTION 11: Toxicological information

No toxicological study had been performed related to the article. In accordance with relevant EU regulations the article has been classified as non dangerous article. The lead and the lead compaunds are harmful for the cells and the nervs (might cause injury of the brain), but in case of proper handling and usage of the product (article) the lead content is not exposed, and thus no danger occurs.

### SECTION 12: Ecological information

- **12.1. Toxicity:** In accordance with relevant EU regulations the article has been classified as non dangerous article. In case of proper handling and usage of the product (article) the lead content is not exposed, and thus no danger occurs.
- **12.2. Persistence and degradability:** The lead does not decay biologically. In case of proper handling and usage of the product (article) the lead content is not exposed, and thus no danger occurs.
- **12.3. Bioaccumulative potential:** The lead accumulates in the organizm. Nevertheless in case of proper handling and usage of the product (article) the lead content is not exposed, and thus no danger occurs
- **12.4. Mobility in soil:** there is no information.
- **12.5. Results of PBT and vPvB assessment:** The product (article) is not regarded as of PBT and vPvB substances but the lead and the lead compaund, that it contains are toxic and bioaccumulative (see 12.1., 12.3.).
- **12.6.** Other adverse effects: there are not such effects.

# SECTION 13: Disposal considerations

# 13.1. Waste treatment methods:

All local and national regulations should be followed.

Residue: collect the material separately, and send to special waste disposal company. Must not be disposed together with household garbage.

EWC (recommandation): 20 01 36

Waste: the waste code must be allocated in compliance with the 2008/98/EC Directive, 91/689/EEC Directive referring to the specific process and the sector.



#### SAFETY INFORMATION SHEET

compiled in accordance to the COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 and the compliant Hungarian regulations

Reviewed on 29.07.2019

# SECTION 14: Transport information

According to classification systems of related regulations ((ADR, RID, ADN, IMDG, ICAO-TI, IATA-DGR) this product (article) is not referred as dangerous.

- **14.1. UN number:** not applicable.
- **14.2. UN proper shipping name:** not applicable.
- **14.3. Transport hazard class(es):** not applicable.
- **14.4. Packing group:** not applicable.
- **14.5.** Environmental hazards: not applicable.
- **14.6. Special precautions for user:** for the transport the electrodes should be kept always in their individual plastic container.
- **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

One shall apply the decisions and regulations together with actual amendments.

#### **International regulations**

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

COMMISSION DECISION of 12 July 1995 setting up a Scientific Committee for Occupational Exposure Limits to Chemical Agents (95/320/EC).

MARPOL 73/78 Consolidated Edition 2006 London. International Convention for the Prevention of Pollution from ships, 1973.

IBC regulation, IMO 2007, London, ISBN 978-92-801-4226-6.

IMO MEPC.2/Circ.14 17 December 2008 Provisional categorization of liquid substances.

#### **Hungarian regulations:**

2000. évi XXV. Tv. low on the chemical safety.

44/2000. (XII.20.) EüM rend., regulation on detailed rules of handling and manipulations of dangerous substances and articles.

25/2000. (IX.30.) EüM-SzCsM együttes Ren., common regulation on chemical safety of workplaces.

1993. évi XCIII. Tv., low on the labour safety and relevant regulations.

3/2002. (II. 8.) SzCsM-EüM együttes Rend., common regulation on minimum labour safety requirements of workplaces.

28/2011. (IX. 6.) BM Rend., regulation; National Fire Safety Regulations.

1995. évi LIII. Tv., low on general rules of environment protection.

1995. évi LVII. Tv., low on water management.

220/2004. (VII. 21.) Korm. Rend., govern. regulation on rules of the protection of quality of surface waters.

2012. évi CLXXXV. Tv., low on the waste.

98/2001. (VI.15.) Korm. Rend., govern regulation on conditions of manipulations related dangerous waste.

442/2012. (XII. 29.) Korm. rendelet govern. Regulation on the packing and the tretmant of the packint waste.

16/2001. (VII.18.) KöM Rend., regulation, List of waste.

**15.2. Chemical safety assessment:** was not done.



#### SAFETY INFORMATION SHEET

compiled in accordance to the COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 and the compliant Hungarian regulations

Reviewed on 29.07.2019

H and R phrases in Section 2. and 3.

H302 Harmful if swallowed.

H360Df May damage the unborn child. Suspected of damaging the fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

R20/22 Harmful by inhalation and if swallowed.

R33 Danger of cumulative effects.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects int he aquatic environment.

R61 May cause harm to the unborn child.

R62 Possible risk of impaired fertility.

#### **Abbreviations:**

EU Europian Union

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road RID Regulations concerning the International Carriage of Dangerous Goods by Rail, Annex B/1.

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Navigation

goods) (revised on 2010. 01. 01)

IMDG International Maritime Code for Dangerous Goods Amdt. 36-12 (2014.01.01)

ICAO International Civil Aviation Organization

IATA International Air Transport

CAS Chemical Abstracts Service
PBT Persistent, Bioccumulate, Toxic
vPvB very Persistent, very Bioaccumulate

Acute Tox. Acute Toxicity EüM Ministry of Health

SzCsM Ministry of Social and Family Affairs.

Korm. Government

BM Ministry for home affairs

KöM Ministry for Protection of Environment.

### Users are reminded of the following:

- the information data were given in good faith to help to user for safety handling, storage and work with the electrodes,
- not proper use may result in dangers,
- the user is exclusively responsible for the application of other (without the mentioned in this information) necessary safety regulations according to handling, storage and use of the electrodes.