

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

**\*1.1 Product identifier**

**\*Trade name:** INORGANIC ELECTRODE

**\*Article number:** IECS5

**\*1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.

**\*Application of the substance / the mixture** Laboratory Chemicals

**\*1.3 Details of the supplier of the safety data sheet**

**\*Manufacturer/Supplier:**

Reagecon Diagnostics Ltd.  
Shannon Free Zone,  
Shannon,  
Co. Clare,  
IRL.

Tel +353 61 472622

Fax +353 61 472642

**\*Further information obtainable by contacting:** [sds@reagecon.ie](mailto:sds@reagecon.ie)

**\*1.4 Emergency telephone number:**

24 HOUR EMERGENCY CONTACT NUMBER AVAILABLE :- If phoning from USA 011-353-87-9518207, If phoning from Rest of World 00-353-87-9518207

**SECTION 2: Hazards identification**

**\*2.1 Classification of the substance or mixture**

**\*Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Carc. 2                    H351 Suspected of causing cancer.

Repr. 2                    H361d Suspected of damaging the unborn child.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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



Xn; Harmful

R40-63: Limited evidence of a carcinogenic effect. Possible risk of harm to the unborn child.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**\*Information concerning particular hazards for human and environment:**

The product has been classified and labelled in accordance with EU Directive 99/45/EC and all other EU Directives referred to therein.

**\*Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

**\*2.2 Label elements**

**\*Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

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**\*Hazard pictograms**

GHS08

**\*Signal word** Warning**\*Hazard-determining components of labelling:**

thiourea

**\*Hazard statements**

H351 Suspected of causing cancer.

H361d Suspected of damaging the unborn child.

H412 Harmful to aquatic life with long lasting effects.

**\*Precautionary statements**

P281 Use personal protective equipment as required.

P273 Avoid release to the environment.

P201 Obtain special instructions before use.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**\*2.3 Other hazards****\*Results of PBT and vPvB assessment****\*PBT:** Not applicable.**\*vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

**\*3.2 Chemical characterization: Mixtures****\*Description:** Mixture of substances listed below with nonhazardous additions.**\*Dangerous components:**

CAS: 62-56-6	thiourea	2.5-10%
EINECS: 200-543-5	Xn R22-40-63;  N R51/53 Carc. Cat. 3, Repr. Cat. 3	
	Carc. 2, H351; Repr. 2, H361d;  Aquatic Chronic 2, H411;  Acute Tox. 4, H302	

**\*Additional information:** For the wording of the listed risk phrases refer to section 16.

### SECTION 4: First aid measures

**\*4.1 Description of first aid measures****\*After inhalation:**

Provide fresh air, warmth and rest. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Obtain medical attention if any discomfort continues.

**\*After skin contact:** Generally the product does not irritate the skin.**\*After eye contact:**

Promptly wash eyes with plenty of water for up to 15 minutes. Open eyes wide apart and rinse well to remove any contact lenses. Do not remove contact lenses by hand. Continue to rinse. Get medical attention if symptoms persist.

**\*After swallowing:** If symptoms persist consult doctor.**\*4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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**\*4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures**

**\*5.1 Extinguishing media**

**\*Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**\*5.2 Special hazards arising from the substance or mixture** No further relevant information available.

**\*5.3 Advice for firefighters**

**\*Protective equipment:** No special measures required.

**SECTION 6: Accidental release measures**

**\*6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment as described in Section 8 below. Keep unprotected persons away.

**\*6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**\*6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**\*6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**SECTION 7: Handling and storage**

**\*7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**\*Information about fire - and explosion protection:** No special measures required.

**\*7.2 Conditions for safe storage, including any incompatibilities**

**\*Storage:**

**\*Requirements to be met by storerooms and receptacles:** No special requirements.

**\*Information about storage in one common storage facility:** Not required.

**\*Further information about storage conditions:** None.

**\*7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

**\*Additional information about design of technical facilities:** No further data; see item 7.

**\*8.1 Control parameters**

**\*Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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**\*Additional information:** The lists valid during the making were used as basis.

**\*8.2 Exposure controls****\*Personal protective equipment:****\*General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

**\*Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Where risk assessment shows air-purifying respirators are appropriate use a respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges as back up to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**\*Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Always ensure that gloves are inspected before use.

Selection of protective gloves must include consideration of the penetration times along with rates of diffusion and degradation. The selected glove should comply with the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it.

**\*Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Nitrile gloves are recommended for splash contact.

This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific use scenario.

**\*Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**\*Eye protection:** Goggles recommended during refilling

## SECTION 9: Physical and chemical properties

**\*9.1 Information on basic physical and chemical properties****\*General Information****\*Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	According to product specification
<b>*Odour:</b>	Characteristic
<b>*Odour threshold:</b>	Not determined.

**\*pH-value:** Not determined.

**\*Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C

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*Flash point:	Not applicable.
*Flammability (solid, gaseous):	Not applicable.
*Ignition temperature:	440 °C
*Decomposition temperature:	Not determined.
*Self-igniting:	Product is not selfigniting.
*Danger of explosion:	Product does not present an explosion hazard.
*Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
*Vapour pressure at 20 °C:	23 hPa
*Density at 20 °C:	1.03428 g/cm <sup>3</sup>
*Relative density	Not determined.
*Vapour density	Not determined.
*Evaporation rate	Not determined.
*Solubility/ miscibility with water:	Fully miscible.
*Partition coefficient (n-octanol/water):	Not determined.
*Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
*Solvent content:	
Organic solvents:	0.0 %
*9.2 Other information	No further relevant information available.

### SECTION 10: Stability and reactivity

- \*10.1 Reactivity
- \*10.2 Chemical stability
- \*Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- \*10.3 Possibility of hazardous reactions No dangerous reactions known.
- \*10.4 Conditions to avoid No further relevant information available.
- \*10.5 Incompatible materials: No further relevant information available.
- \*10.6 Hazardous decomposition products: No dangerous decomposition products known.

### SECTION 11: Toxicological information

#### \*11.1 Information on toxicological effects

##### \*Acute toxicity:

##### \*LD/LC50 values relevant for classification:

##### 62-56-6 thiourea

Oral	LD50	1750 mg/kg (rat)
Dermal	LD50	2800 mg/kg (rbt)

##### \*Primary irritant effect:

\*on the skin: No irritant effect.

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\***on the eye:** No irritating effect.\***Sensitization:** No sensitizing effects known.\***Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Limited evidence of carcinogenic effect

\***CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Carc. 2, Repr. 2

### SECTION 12: Ecological information

\***12.1 Toxicity**\***Aquatic toxicity:** No further relevant information available.\***12.2 Persistence and degradability** No further relevant information available.\***12.3 Bioaccumulative potential** No further relevant information available.\***12.4 Mobility in soil** No further relevant information available.\***Ecotoxicological effects:**\***Remark:** Harmful to fish\***Additional ecological information:**\***General notes:**

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

\***12.5 Results of PBT and vPvB assessment**\***PBT:** Not applicable.\***vPvB:** Not applicable.\***12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

\***13.1 Waste treatment methods**\***Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

\***Uncleaned packaging:**\***Recommendation:** Disposal must be made according to official regulations.\***Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

\***14.1 UN-Number**\***ADR, ADN, IMDG, IATA**

Void

\***14.2 UN proper shipping name**\***ADR, ADN, IMDG, IATA**

Void

\***14.3 Transport hazard class(es)**\***ADR, ADN, IMDG, IATA**\***Class**

Void

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<b>*14.4 Packing group</b> <b>*ADR, IMDG, IATA</b>	Void
<b>*14.5 Environmental hazards:</b> <b>*Marine pollutant:</b>	No
<b>*14.6 Special precautions for user</b>	Not applicable.
<b>*14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>*Transport/Additional information:</b>	Not dangerous according to the above specifications.
<b>*UN "Model Regulation":</b>	-

### SECTION 15: Regulatory information

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

**\*National regulations:**

**\*Technical instructions (air):**

Class	Share in %
Wasser	91.5
I	7.6

**\*Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

**\*15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**\*Relevant Phrases:**

H302 Harmful if swallowed.

H351 Suspected of causing cancer.

H361d Suspected of damaging the unborn child.

H411 Toxic to aquatic life with long lasting effects.

R22 Harmful if swallowed.

R40 Limited evidence of a carcinogenic effect.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R63 Possible risk of harm to the unborn child.

**\*Department issuing MSDS:** Health and Safety

**\*Contact:** sds@reagecon.ie

**\*Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

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