

# PERMESSO DI RICERCA DI RISORSE GEOTERMICHE FINALIZZATO ALLA SPERIMENTAZIONE DI UN IMPIANTO PILOTA DENOMINATO "CORTOLLA"

COMUNI DI MONTECATINI VAL DI CECINA – PROVINCIA DI PISA

PROPONENTE:

**R.T.I.**

Raggruppamento Temporaneo di Impresa



## PROGETTO DEFINITIVO

NUMERO ELABORATO:

**CRT-RP01-A12-V00**

TITOLO:

**SCHEMA DELL'INIBITORE**

DATA:

Febbraio 2017

PROGETTISTI:

**RENEWEM S.r.l**

Via Norvegia n° 68 - 56021 Cascina (PI) - ITALIA

UFFICI:

Renewem srl

Via Norvegia n° 68 - 56021 Cascina (PI) - ITALIA  
tel. 0039 050 6205317 fax. 0039 050 0987814

Cosvig

Via T. Gazzei n° 89 - Radicondoli (SI) - ITALIA  
tel. e fax. 0039 0577 752950

REVISIONE

DATA		NOTE
REV.1		
REV.2		
REV.3		





# **PERMESSO DI RICERCA DI RISORSE GEOTERMICHE FINALIZZATO ALLA SPERIMENTAZIONE DI UN IMPIANTO PILOTA DENOMINATO “CORTOLLA”**

COMUNI DI MONTECATINI VAL DI CECINA – PROVINCIA DI PISA

**PROCEDURA DI VALUTAZIONE DI IMPATTO AMBIENTALE**

## **SCHEMA DELL'INIBITORE**

**RENEWEM S.R.L.**

*Gruppo di lavoro:*

Dott. W. Luperini

Dott. F. Martini

Dott. N. Sannino



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printed date 09.07.2014

Edition n° 2

Revision: 01.07.2014

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

\* **1.1 Product identifier**

\* **Trade name:** HYDRODIS GE 0790

\* **Registration number** All the substances used as ingredients in this preparate were pre-registered.

\* **Chemical composition:** Polyphosphonic acid sodium salt

\* **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** Dispersing agent for geothermal applications

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

\* **Manufacturer/Supplier:**

GIOVANNI BOZZETTO S.p.A.  
Fabbrica Ausiliari Chimici Industriali  
Via Provinciale, 12  
24040 FILAGO (Bg) - ITALY

Tel. 0039-035-996711

Fax. 0039-035-4942945

productsafety@bozzetto.it

\* **1.4 Emergency telephone number:**

Tel.

+49-69-305 6418 (INFRASERV GmbH)

Fax

+49-69-308067 (INFRASERV GmbH)

**SECTION 2: Hazards identification**

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

\* **Classification according to Regulation (EC) No 1272/2008** The product is not classified according to the CLP regulation.

\* **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.

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

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

\* **2.2 Label elements**

\* **Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

\* **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: Mixture**

\* **Description:** Mixture of not dangerous substances

\* **Dangerous components:** Not applicable

\* **SVHC** Not present

\* **Additional information:** Complete text of R phrases and H sentences is available in the section 16.

GB

(Contd. on page 2)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printed date 09.07.2014

Edition n° 2

Revision: 01.07.2014

Trade name: HYDRODIS GE 0790

(Contd. of page 1)

#### SECTION 4: First aid measures

**\* 4.1 Description of first aid measures**

**\* General information:** No special measures required.

**\* After inhalation:** Supply fresh air; consult doctor in case of complaints.

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

**\* After eye contact:** Rinse opened eye for several minutes under running water.

**\* After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

**\* 4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

**\* 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:** Use fire extinguishing methods suitable to surrounding conditions.

**\* 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** Refer to point 8

**\* 6.2 Environmental precautions:**

Do not allow the undiluted product to enter municipal sewers / surface / ground water systems.

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

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

**\* 6.4 Reference to other sections** No dangerous substances are released.

#### SECTION 7: Handling and storage

**\* 7.1 Precautions for safe handling** No special measures required.

**\* 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.

**\* Maximum storage temperature:** 50 °C

**\* Minimum storage temperature:** 0 °C

**\* Storage class:**

**\* Class according to regulation on flammable liquids:** Void

**\* 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.

(Contd. on page 3)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printed date 09.07.2014

Edition n° 2

Revision: 01.07.2014

**Trade name:** HYDRODIS GE 0790

(Contd. of page 2)

**\* 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.

**\* 8.2 Exposure controls**

**\* Personal protective equipment:**

**\* General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

**\* Respiratory protection:** Not required.

**\* Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation (EN 374).

**\* 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**\* 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>	Amber coloured
<b>* Odour:</b>	Characteristic

**\* pH-value at 20 °C:** ~ 7

**\* Change in condition**

**Melting point/Melting range:** ~ 0 °C

**Boiling point/Boiling range:** > 100 °C

**\* Flash point:** > 250 °C

**\* Self-igniting:** Product is not selfigniting.

**\* Danger of explosion:** Product does not present an explosion hazard.

**\* Vapour pressure at 20 °C:** 23 hPa

**\* Density at 20 °C:** 1.34 g/cm<sup>3</sup>

**\* Solubility in / Miscibility with**

**water:** Fully miscible.

**\* Viscosity:**

**Dynamic at 20 °C:** ~ 45 mPas (OECD 111)

**\* 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.

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printed date 09.07.2014

Edition n° 2

Revision: 01.07.2014

**Trade name: HYDRODIS GE 0790**

(Contd. of page 3)

- \* **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:**  
For combustion during a fire:  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NOx)  
Phosphorus compounds

## SECTION 11: Toxicological information

- \* **11.1 Information on toxicological effects**
- \* **Acute toxicity:**

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

Oral	LD-50 (OECD 401)	> 2000 mg/kg (rat)
Dermal	LD-50 (OECD 402)	> 2000 mg/kg (rat)

\* **Primary irritant effect:**

- \* **on the skin (Rabbit OECD 404):** No irritating effect.
- \* **on the eye (Rabbit OECD 405):** No irritating effect.
- \* **Sensitization (Guinea pig OECD 406):** No sensitizing effects known.

\* **Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

## SECTION 12: Ecological information

\* **12.1 Toxicity**

\* **Aquatic toxicity:**

EC-50/48 h	> 100 mg/l (Daphnia magna)
------------	----------------------------

\* **12.2 Persistence and degradability** 50 + 70 % OECD 302 B

- \* **MBAS:** 0 mg/g
- \* **BiAS:** 0 mg/g
- \* **Other information:** AOX absent
- \* **12.3 Bioaccumulative potential** No further relevant information available.
- \* **12.4 Mobility in soil** No further relevant information available.

\* **Additional ecological information:**

\* **General notes:**

Water hazard class 1 (German Regulation): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or public sewage system.

\* **12.5 Results of PBT and vPvB assessment**

- \* **PBT:** Not applicable.
- \* **vPvB:** Not applicable.

\* **12.6 Other adverse effects** No further relevant information available.

GB

(Contd. on page 5)



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printed date 09.07.2014

Edition n° 2

Revision: 01.07.2014

Trade name: HYDRODIS GE 0790

(Contd. of page 4)

**SECTION 13: Disposal considerations**

**\* 13.1 Waste treatment methods**

**\* Recommendation**

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

**\* Waste disposal key:** 07 07 99

**\* Uncleaned packaging:**

**\* Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

**\* 14.1 UN-Number**

**\* ADR, ADN, IMDG, IATA** Not applicable

**\* 14.2 UN proper shipping name**

**\* ADR, ADN, IMDG, IATA** Not applicable

**\* 14.3 Transport hazard class(es)**

**\* ADR, ADN, IMDG, IATA**

**\* Class** Not applicable

**\* 14.4 Packing group**

**\* ADR, IMDG, IATA** Not applicable

**\* 14.5 Environmental hazards:**

**\* Marine pollutant:** No

**\* 14.6 Special precautions for user**

Not applicable.

**\* 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**\* Transport/Additional information:**

**\* ADR**

**\* Remarks:** Not dangerous goods for transport by road.

**\* IMDG**

**\* Remarks:** Not dangerous goods for transport by sea.

**\* IATA**

**\* Remarks:** Not dangerous goods for transport by air.

**\* UN "Model Regulation":** -

**SECTION 15: Regulatory information**

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

**\* Philippines Inventory of Chemicals and Chemical Substances**

All ingredients are listed.

**\* Australian Inventory of Chemical Substances**

All ingredients are listed.

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printed date 09.07.2014

Edition n° 2

Revision: 01.07.2014

**Trade name: HYDRODIS GE 0790**

(Contd. of page 5)

- \* **Chemical safety assessment** POLYMERS are REACH 1907/2006-CE Registration TOTALLY EXEMPTED
- \* **National regulations:**
- \* **Classification according to VbF:** Void
- \* **Waterhazard class:** Water hazard class 1(WGK 1) (Self-assessment): slightly hazardous for water.

## SECTION 16: Other information

The Information contained herein is based on the present state of our knowledge and in compliance with 91/155/EC Directive (subsequent modifications and integrations) and 1907/2006/EC Regulation. However, we make no guarantees concerning specific product features and shall not establish a legally valid contractual relationship.

It is prohibited to use the product for any purposes different than those specified in the technical sheet and without receiving written instructions. We take no responsibility for unauthorized use.

It is always the responsibility of the user to take all necessary steps in order to assure compliance with all current local, state, and Federal regulations as for hygiene, safety and environment protection.

The information in this MSDS is meant only as a description of the safety requirements of our product. It is not to be considered as a guarantee of the product properties.

\* **Department issuing MSDS:** Headquarter Laboratory.

\* **Contact:**

Dr.Francesco Spini

QHSE Manager

\* **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)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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

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

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

\* **Sources**

NIOSH - Registry of toxic effects of chemical substances (1993)

CESIO - Classification and labelling of anionic, nonionic surfactants(01/2000)

SAX'S Dangerous Properties of Industrial Materials (1993)

ACGIH "2001 TLV"

TLV "2000/39/CE"

R.D.Swisher - Surfactants biodegradation

ECDIN DB

KBwS list

\*\* **Data compared to the previous version altered.**