



**SAFETY DATA SHEET**  
according to Regulation (EC) No. 1907/2006 (REACH), Annex II

# HYDROLOCK

Date Prepared: 06/08/2012

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## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

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**Product identifiers**

**Product name**

**HydroLock**

**Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses:**

encapsulating agent, tank cleaning and devaporizing,  
surface cleaning

**Importer:**

Hazard Control Technologies Europe, s.r.l.  
Via Istria, 3  
19124 La Spezia  
Italy

**Manufacturer:**

Hazard Control Technologies, Inc.  
150 Walter Way  
Fayetteville, GA 30214  
USA

**E-mail address:**

info@hct-europe.com

**Contact:**

Germany +49 (0) 6051 7879940  
Italy +39 0187 518493  
USA +1 770 719 5112  
www.HydroLock.eu

**Emergency telephone number:**

Germany +49 (0) 6051 7879942 (24h)  
Italy +39 340 722 1360  
USA +1 770 719 5115

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## 2. HAZARDS IDENTIFICATION

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**Classification of the substance or mixture:**

Not a hazardous substance or mixture according to  
Regulation (EC) No. 1272/2008.

**Label elements:**

The product does not need to be labeled in accordance with  
1999/45/EC (Dangerous Preparations Directive).

**Other hazards:**

None  
Refer to the information given in this document.



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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical characterization

Aqueous solution of surfactants with ionic and nonionic tensioactives.

Substance	EC#	CAS	Content (%W)	Classification	
				Symbol	P and H phrases
Nitritotrisethanol aliphatic soap		Trade Secret	1 - 4.5 %		Not classified
Linear aliphatic alcohols		Trade Secret	3 - 10 %		Not classified
Alkyl ether amine reaction with aliphatic acids		Trade Secret	25 - 55 %		Not classified
Water	231-791-2	7732-18-5	35 - 55%		Not classified

## 4. FIRST AID MEASURES

### General information

Generally no medical treatment necessary.

In case of occurrence of any symptoms after contact with HydroLock, we recommend getting medical advice by presenting this safety data sheet.

In case of inhalation:

Immediately remove the affected victim from exposure and administer fresh air. Apply artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

In case of skin contact:

Immediately flush with large amounts of water; use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. If irritation persists, seek medical attention.

In case of eye contact:

Precaution - In case of contact with eyes, flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of prolonged eye irritation, seek medical assistance.

In case of ingestion:

Do NOT induce vomiting. Keep warm and quiet. Get prompt medical attention. Do NOT attempt to give anything by mouth to an unconscious person.

Self-protection of the first aider:

Glasses and gloves according EN normatives recommended.

### Information to physician

Symptoms:

Gastrointestinal disorders.

Cause:

Tensioactives ingestion.

Treatment:

Treat according to ingested quantity.  
Dangerous if ingested quantity is more than 5g/kg body weight.



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## 5. FIRE FIGHTING PROCEDURES

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**Suitable extinguishing media:** Not applicable.  
Product is a non-flammable liquid

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: None

Special protective equipment for fire fighters: No special requirements

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions:** Use EN-approved goggles and gloves.

**Environmental precautions:** F-500 is not a hazardous waste according to European Directives 1999/45/EC and 67/548/EEC.  
Discharge into the environment must be avoided.

**Methods for cleaning up:** Treat the recovered material as prescribed in the section on waste disposal.

**Suitable material for diluting and collecting:** Water, general-purpose binder  
Dispose of in accordance with European Normatives.

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## 7. HANDLING AND STORAGE

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**Advices on safe handling:** Use EN-approved goggles and gloves.

**Technical measures:**

**Measures to prevent aerosol and dust generation:** Do not pressurize storage containers.

**Measures required to protect the environment:** Ensure caps are secure and valves are in off position.

**Precautions against fire and explosion:** Solution is a non-flammable liquid.

**Storage**

**Technical measures and storage conditions:**

**Minimum storage temperature:** 2 °C (protect from frost)  
**Maximum storage temperature:** 49 °C

**Storage period:** 15 years

**Hints on storage assembly:** Do not double-stack pallets or totes



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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Exposure limit values:** No workplace exposure guidelines have been established for this product or for its components.

**Exposure controls**

Occupational exposure controls: Typical fire fighting protection, such as turnout or bunker gear, gloves, boots, and helmets with face shields, provide sufficient control.

Technical measures to prevent exposure: Ensure all pumps, valves, hoses, and nozzles are in working order.

**Personal protective equipment during tank cleaning, degassing:** Depending on the task, regardless of the use of HydroLock, wearing full chemical resistant protective clothing and using self-contained breathing apparatus may be necessary.

**Personal protection equipment:**

Respiratory protection: Not required

Hand protection: Where hand contact is likely, gloves (as tested in accordance with EN374, European or F739, USA) from the following materials provide adequate: contact / splash protection: Nitrile rubber gloves  
Additional information:  
There have been no tests. The selection was made in good faith and derived from the information on the ingredients and the details of the glove manufacturer.  
Suitability and durability of a glove depend on the conditions of use, such as frequency and duration of contact, chemical resistance of glove material, thickness and fit of the gloves. In principle, get necessary information about glove material from the glove manufacturer because of the great diversity of types.  
Wash hands after exposure.

Eye protection: Precaution - Wear safety glasses, goggles, or face shield

Body protection: Clothing/gear to cover exposed skin

**Environmental exposure controls:**

Fresh Water (incl. sewage plant): Recapture runoff flows; consult authority having jurisdiction

Air: Not applicable

Soil: Dilute with water; consult authority having jurisdiction

Exposure controls for consumer use and articles: Not a consumer product.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Physical state: Liquid  
Color: Amber  
Odor: Fruity

### Important health, safety and environmental information

Parameter	Value	Remark
pH (20 °C)	6.9 - 7.1	
Melting point/range (°C)	- 3 °C	
Boiling point/range (°C)	118 +/- 2 °C	
Flash point (°C)	---	Non-flammable liquid
Ignition temperature (°C)	---	Non-flammable liquid
Vapor pressure (at 25 °C)	26.66 hPa	
Density (at 24 °C)	0.98 g/cm <sup>3</sup>	
Water solubility (at 20°C)	completely miscible	
Partition coefficient n-Octanol/Water (at 25 °C)	lg P <sub>OW</sub> = 2	
Viscosity, dynamic (at 20 °C):	85 mPa s	
Dust explosion hazard:	---	Not applicable, liquid
Explosion limits (lower/upper)	---	Non-explosive

**Substance groups relevant properties:** Surfactant, reduces surface tension of aqueous solutions.

## 10. STABILITY AND REACTIVITY

Stability: Product is chemically very stable

Conditions to avoid: The permanent deviation from the herein specified storage conditions must be avoided.

Materials to avoid: P220 Keep/Store away from strong oxidizers

Hazardous decomposition products: None identified



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## 11. TOXICOLOGY INFORMATION

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### Specific symptoms in animal studies:

In case of ingestion: Symptoms of compound-associated diarrhea disappeared by 48 hours post-dose in all affected animals (Rats).

Acute toxicity	Value	Species	Method	Remark
LD50 (oral)	>5 g/kg	Rat	US FDA	Does not cause mammalian mortality.

In case of skin contact: Non sensitizing

Contact	Species	Evaluation	Method	Remark
Skin	Guinea Pig	0 – Non-Skin Sensitizing	OECD 406	Extrapolates to humans

### Sensitization in humans

In case of skin contact: No case known  
In case of inhalation: No case known  
In case of eye contact: No case known



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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Acute aquatic toxicity		Time of exposure	Type	Species
LC50	2,4 mg/L	96 h	Fish	Dicentrarchus labrax
EC50	1,15 mg/L	48 h	Daphnia	Daphnia magna
IC50	2,51 ± 0,52 mg/L	72 h	Algae	Chlorella Minutissima

Chronic aquatic toxicity		Time of exposure	Type	Species
NOEC	1.8 mg/L	28 d	Marine fish	Dicentrarchus labrax
NOEC	2 mg/L	7 d	Marine crawfish	Tigriopus fulvus
NOEC	0.125 mg/L	96 h	Fresh-water crustacean	Daphnia Magna
NOEC	0.5 mg/L	14 d	Fresh-water fish	Oncorhynchus mykiss
NOEC	> 1.4 g/kg	28 d	Earthworm	Eisenia phoetida

### Biodegradation

	Degradability	Time	Method	Assessment according to OECD criteria
Marine water	98.4 %	28 d	OECD 306	Easily biodegradable
Fresh water	90.0 %	28 d	OECD 301b	Easily biodegradable

HydroLock solution, 3 %		Method	Value / unit
Biochemical Oxygen Demand	BSB <sub>5</sub>	DIN 38412, section 51 / 5 days	8,914 mg O <sub>2</sub> /kg
Chemical Oxygen Demand	CSB	DIN 38409, section 41	39,420 mg O <sub>2</sub> /kg

### Toxicity to bacteria

OECD 209	Test system	Time	NOEC [mg/L]	EC50 [mg/L]
Concentrate	Activated sludge of the return line from the aeration stage of a municipal wastewater treatment plant	3 h (ca. 20 °C)	32.6	> 140
3% in water			1,090	> 4,667
1% in water			3,260	> 14,000

### Bioaccumulation potential

No indication of bioaccumulation potential (lg P<sub>OW</sub> < 3)

### Water hazard class

WGK1 (Classified by an independent testing laboratory)



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## 13. DISPOSAL CONSIDERATIONS

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<b>Preventive measures:</b>	<b>Refer to Section 7 before handling HydroLock.</b>
<b>Appropriate disposal / Product:</b>	<b>HydroLock is not a hazardous waste according to European Directives 1999/45/EC and 67/548/EEC. Dispose of in accordance with European Normatives</b>
Unused product:	In original, unopened containers, the shelf life for HydroLock is 15 years. It can be supplied for further use. (I don't know what this means) If in doubt, see Section 1 and contact for information.
Residues:	In properly closed containers residues can be used within some months. (I don't know what this means) If in doubt see Section 1 and contact for information.
Contaminated containers:	Containers may be rinsed with water. The penetration of the product into drains, water sources or the soil should be prevented. No standing or flowing water should be contaminated with the chemical or used containers. Residues and non-recyclable solutions have to be taken to a licensed disposal company. If in doubt see Section 1 and contact for information.
Emptied containers:	Emptied and cleaned packaging may be taken for recycling.

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## 14. TRANSPORT INFORMATION

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Land transport (ADR/RID/GGVSE):	Not Classified
Inland waterway transport (ADN/ADNR):	Not Classified
Sea transport (IMDG-Code/GGVSee):	Not Classified
Air transport (ICAO-IATA/DGR):	Not Classified

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## 15. REGULATORY INFORMATION

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### EU regulations

<b>Chemical Safety Assessment:</b>	None
<b>Hazard(ous) component(s) for labeling:</b>	None
<b>H-Phrases (precautionary):</b>	None
<b>P-Phrases:</b>	P220    Keep/Store away from strong oxidizers
<b>Authorizations and/or restrictions on use:</b>	Follow manufacturer's instructions.





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## 16. OTHER INFORMATION

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### Training instructions

Refer to latest version of "Standard Operating Guidelines"

### Sources of key data

Clemson University, USA  
University of Genova, Italy  
SGS Institut Fresenius, Germany  
Hygiene-Institut des Ruhrgebiets, Germany

The information in this safety data sheet is correct to the best of our knowledge and belief, accurate and reliable as of the date compiled. The information is intended as a guideline for safe handling, storage, processing, transportation and disposal of the product. It is not intended to guarantee any particular properties. We make no representation, warranty or guarantee as to the accuracy, reliability or completeness of the information.

It is the responsibility of the user to verify the adequacy and completeness of such information for his own use. We assume no responsibility for any loss or damage that may occur from use of this information, nor do we offer warranty against patent infringement.

The data given in this SDS for this specific product is not transferable to other products. When it is mixed, processed or treated in any manner, the data given in this document cannot be transferred to the new specific material unless otherwise expressly described.

### Remark:

Relevant changes to the final version of the safety data sheet are marked with a vertical line in front of the affected information.

Please ensure that you have available the latest version of the SDS before using or handling the product.

The current version of the SDS and other information can be downloaded from [www.HydroLock.eu](http://www.HydroLock.eu) or requested from us (refer to Section 1).