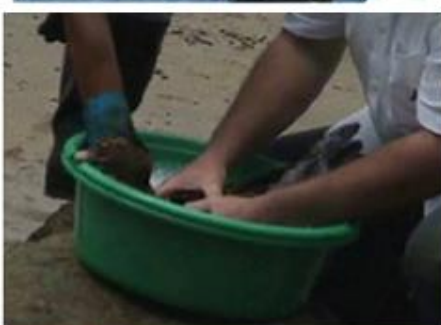


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[illegible]









**UT, Enschede,  
The Netherlands**  
health

**AQUAQUICK 2000** is very well biodegradable and is fully degraded in the wastewater

facility. Due to the absence of chlorine the product does not give any toxic products when used as a detergent or with biodegradation. Aquaquick 2000 does not cause any special

risks when used. The product easily removes hydrocarbons in case of soil cleaning.



**TNO University Delft,  
The Netherlands**

**AQUAQUICK 2000/SP** is not hazardous to aquatic organisms when diluted 50:1.

All components are readily biodegradable and completely mineralized in aquatic systems.

No long term adverse effects on the aquatic ecosystem may be expected.



**TNO University Zeist,  
The Netherlands**

**AQUAQUICK 2000 SP** has shown to be non-sensitizing, and not irritating or corrosive to human skin or eyes.



**Ministry of Health ,  
The Netherlands**

**AQUAQUICK 2000** complies with the Dutch regulations and can be used for applications in the food industry.



**Dept. of Defense,  
The Netherlands**

**AQUAQUICK 2000** causes no adverse effects on paints or coatings.

Has proven to be very suitable for the removal of hydrocarbons and makes a stable emulsion.

**Natostock No. 6850 17 106 2499, 6850 17 113 8832, 4210 17 114 0278**



**Water Board Districts,**

**The Netherlands**

**AQUAQUICK 2000** can be drained away into the waste-water sewer after mechanical removal of the main part of the hydrocarbon pollutions.

The dissolved hydrocarbons may not be polluted with black list substances.



**Directorate General for**

**Shipping and Maritime**

**affairs, London UK (IMO)**

**AQUAQUICK 2000/SP** has been evaluated and found to meet the guidelines as stated in

MARPOL Annex II, Tankcleaning (MEPC.2 / CIRC.20 ANNEX 10) IMO, ESPH working group.

2014-12-17

[www.imo.org](http://www.imo.org) Cargo Tank Cleaning Additives, page 66



**NS, Dutch Railways**

**Utrecht, Netherlands**

**AQUAQUICK 2000** is a rather universal applicable cleaning agent, which is suitable for cleaning of metals and painted surfaces, without eroding those materials.

No special safety precautions when using the product.

This product can be used with high pressure equipment.



**American Bureau of**

**Shipping, London UK**

**AQUAQUICK 2000/SP** Certificate of Product Design Assessment.

(Type Approval for Shipping)



**State Supervision of**

**Mines, the Netherlands**

**AQUAQUICK 2000** This product is found innocuous for the marine environment in the strict sense of article 49B, sub. 1, of the Mining regulation Continental Shelf.



**AQUAQUICK 2000/SP** Meets the German regulations of requirements for dangerous

**TUV Research Institute,  
Hannover, Germany**

substances and preparations: (1) Conform to all requirements for environmental directive guidelines. (2) Approval for the use in the Automotive and Metalworking Industry. (3) Conform to all requirements for fast splitting cleansers and measures for biodegradability and bioaccumulation.



**AQUAQUICK 2000 SP** meets the environmental guidelines and standards of Germany.

**Dekra Umwelt GmbH  
Stuttgart, Germany**

Approved for oil and grease separators (Austrian Standard B 5105)  
Transport classification: Not a dangerous good.



**Institute of Hygiene  
Gelsenkirchen,  
Germany**

**AQUAQUICK 2000** there are no objections to the use as a detergent for road surfaces polluted with oil from a hygienic point of view.



**State Laboratory for  
Material Research  
Dortmund, Germany**

**AQUAQUICK 2000** meets the requirements in accordance with "Method for the removal of oil traces on road surfaces, with the exception of oil absorbents".



**Chem. Labor  
WEßLING, Germany**

**AQUAQUICK 2000** is very well biodegradable and causes no adverse effect for a waste-water facility.



Malaysia

**AQUAQUICK 2000** In accordance to the International maritime organization (IMO)

product classification, chemicals with LC50 and EC50 values  $\geq 1000$  mgL-1 are considered

non-toxic to the aquatic environment. The experimental data showed that diluted Aquaquick 2000 can be classified as a non-toxic chemical.

(Oil and grease contents in wastewater were reduced up to 94 % in 21 days)



Micro Biological Lab.

J. Balfanz, Munster

Germany

**AQUAQUICK 2000 V-93** this product stimulates the growth of bacteria and micro organisms,

and as such accelerates the break down of hydrocarbons in surface water and polluted soil.

Research conclusion on the biological breakdown of hydrocarbons: 86-96 % within 35 days.



Mechem Technical &

Laboraty Services Pte.Ltd.

Singapore

**AQUAQUICK 2000** was found to comply with the specifications of dispersant, listed in the

first schedule of the prevention of pollution of the sea. (Regulations 1999)



Singapore

**AQUAQUICK 2000** approval for Singapore Green Label (User ID : SGLS 036 - 001)



Migas Lab.

**AQUAQUICK 2000** can be legally and safely used to control oil spills on the ocean.

The product has to be diluted with water 1:50 and is advised to the users to conduct their

**Indonesia**

own test concerning effectiveness and biodegradability. (2132/38.03/DMT/2003)



**London Underground**

**AQUAQUICK 2000** acceptable for use within London Underground Ltd., there will be no objection to its use regarding health and safety. (Report No. C7638 Febr. 09, 1996)

**United Kingdom**



**Sealers**

**AQUAQUICK 2000/SP** no adverse effect on Simson Floor seal PS and Saba Sealer MB/MBT (special sealers for gas stations and liquid tight industrial floors)



**Canada**

**AQUAQUICK 2000/SP** is approved for the use in food plants on floors, walls, and food areas when food is not being handled or prepared.



**Iceland**

**AQUAQUICK 2000** approval for the food industry in Iceland.



**Poland**

**AQUAQUICK 2000** approval for all applications in Poland.



**AQUAQUICK 2000/SP/V93/B40** approval for all applications in Germany.

**Germany**



**AQUAQUICK 2000** approval for all applications in Thailand and Malaysia.

**Thailand / Malaysia**



**AQUAQUICK 2000** approval for all applications in Peru.

**Peru**



Philippine coast Guard: Accreditation of oil spill dispersant (2013).



Approval for all Libyan Oil Companies to use AQUAQUICK 2000 (2016).



## **RESEARCH FIGURES *AQUAQUICK 2000* PRODUCTS**

### **TOXICITY AND BIODEGRATION**

Effect on a crustacean	: LC50 (48 h, Acartia Tonsa)	= 13 mg.l <sup>-1</sup> (concentrated)
	: LC50 (48 h, Acartia Tonsa)	= 650 mg.l <sup>-1</sup> (diluted 50 :1)
Effect on algae growth	: ErC50 (72 h. Skelet. Costatum)	= 6.2 mg l <sup>-1</sup> (concentrated)
	: ErC50 (72 h. Skelet. Costatum)	= 310 mg l <sup>-1</sup> (diluted 50:1)
Acute toxicity test with fish	: LC50 (96 h. Cyprinus Carpio)	= 1473 mg l <sup>-1</sup> (diluted 50:1)
Acute immobilization Daphnia	: EC50 (48 h. Moina Macrocopa)	= 1075 mg l <sup>-1</sup> (diluted 50 :1)
Biodegradability	: In natural seawater	= 66 % within 28 days (closed bottle)
		BOD 0.18 ~ COD 0.27 mg O <sub>2</sub> . mg-l
	: Sewer and waterpurificationplant	= 100 % within 60 minutes.
Bioaccumulation	: Basic components	= Log Pow between 3.5 and 5.1
Product classification (EEC)	: Concentrated	= R51 – Toxic to aquatic organisms
	: Diluted 20:1	= Not hazardous to aquatic organisms
Detergents used in Aquaquick	: Primary degradation	= 96-100 % in 21 days
	: Mineralization	= 80 - 98 % in 28 days
Animal toxicity	: LD50 (oral rat	= 5 g/kg. (Aquaquick 2000 / E)
		= 12 g/kg. (Aquaquick 2000 SP)
<b>Conclusion TNO Research NL</b>	: As evidence exists that all components included in Aquaquick 2000 & SP are readily biodegradable and completely mineralized in aquatic systems, no long term adverse effects for the aquatic ecosystems may be expected.	
	: Aquaquick 2000 & SP fulfils the European environmental criteria (EC 648/2004)	
<b>Mechem Laboratory, Singapore</b>	: Aquaquick 2000 was found to comply with the specifications of dispersants listed in the first schedule of the prevention of pollution of the sea (regulations 1999)	

**Department of Energy, Indonesia** : Aquaquick 2000 has been approved to be used to treat oil spills on land and sea.

**DERMATOLOGY ~ TNO Research**

Acute dermal irritation/corrosion	: Albino Rabbits	= not irritating or corrosive to (human) skin
Acute eye irritation/corrosion	: Albino Rabbits	= not irritating or corrosive to (human) eyes (diluted 50:1)
Sensitization/maximization test	: Guinea Pigs	= not sensitizing

**ANALYSES DEKRA GERMANY**

VOC	: GC MS Scan	< 0,01 %
EOX	: DIN 38 409/14	< 0,01 %
NTA	: DIN 38 413/3	< 0,001 %
EDTA	: DIN 38 413/3	< 0,001 %
PHOSPHOR	: DIN 38 405/11	< 0,01 %

**RESEARCH REPORTS**

<b>TNO, The Netherlands :</b>	MR-R 94/064a	~ 1994 AQUAQUICK 2000
	V 96.382	~ 1996 AQUAQUICK 2000 SP
	V 96.407	~ 1996 DERMATOLOGIC REPORT
	V 96.408	~ 1996 DERMATOLOGIC REPORT
	V 96.409	~ 1996 DERMATOLOGIC REPORT
	V 97.1050	~ 1998 AQUAQUICK 2000 (DUTCH)
	V 4080/01	~ 2002 AQUAQUICK 2000
	V 6516/03	~ 2007 AQUAQUICK 2000
	V 6516/04	~ 2007 AQUAQUICK 2000 SP
<b>SIRIM, Malaysia:</b>	9217-97-049	~ 1997 AQUAQUICK 2000
<b>University of Twente, The Netherlands :</b>	Environmental Reports	~ 1989 - 1990 AQUAQUICK 2000
<b>Dekra Umwelt, Germany :</b>	70311/96	~ 1996 AQUAQUICK 2000
<b>Mechem Laboratory, Singapore :</b>	M 34012-031014	~ 2003 AQUAQUICK 2000
<b>Department of Energy, Indonesia :</b>	132/28.02/DMT	~ 2005 AQUAQUICK 2000



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