

**OPTICAL WONDER Cleaning Fluid****No Change Service**

Version 02.01

Revision Date 20.08.2004

Print Date 25.04.2005

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product Information**

Trade name : OPTICAL WONDER Cleaning Fluid

Producer/Supplier : BAADER PLANETARIUM GmbH
Zur Sternwarte
D-82291 Mammendorf
Germany
Tel.: ++49-8145-8802
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++49-8145-8802

Emergency telephone number : ++49-8145-8802

Application : Cleaning Fluid

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : (Preparation)

Description : Solution of the following substances with harmless additives.

Components	CAS-No.	EC-No.	Symbol	R-phrase(s)	Concentration
Ethanol	64-17-5	200-578-6	F	R11	25%
Propan-1-ol	71-23-8	200-746-9	F, Xi	R11, R41, R67	35%

For the full text of the R phrases mentioned in this Section, see Section 16.

3. HAZARDS IDENTIFICATION**Risk advice to man and the environment**

ICAO-Labels / Indication of danger:

Xi	Irritant
R10	Flammable.
R41	Risk of serious damage to eyes.
R67	Vapours may cause drowsiness and dizziness.

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4. FIRST AID MEASURES

- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Inhalation : Move to fresh air.
- Ingestion : Obtain medical attention.

5. FIRE-FIGHTING MEASURES

- Special protective equipment for fire-fighters : No Special precautions required.
- Suitable extinguishing Media : water, dry powder, alcohol-resistant foam, carbon dioxide (CO₂)
- Extinguishing media which must not be used for safety reasons : No information available.
- Specific risk from the substance or the product itself, its combustion products or evolved gases : No Special risks to be expected.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Ensure adequate Ventilation. Remove all sources of ignition.
- Environmental precautions : No Special environmental precautions required.
- Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece). Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. HANDLING AND STORAGE**Handling**

- Safe handling advice : not required under normal use.
- Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking. The hot product gives off combustible vapours.

Storage

- Requirements for storage areas and containers : Store in original Container.
- Further information : Keep away from direct sunlight. Keep Container tightly closed.
- Advice on common storage : Keep away from food and drink.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters**

Components	Cas-No.	Value	Basis
Ethanol	64-17-5	MAK: 960 mg/m ³ MAK: 500 ppm	TRGS 900
Ethanol	64-17-5	VME: 1.900 mg/m ³ VME: 1.000 ppm	INRS
Ethanol	64-17-5	VLE: 9.500 mg/m ³ VLE: 5.000 ppm	INRS
Propan-1-ol	71-23-8	VME: 500 mg/m ³ VME: 200 ppm	INRS

Personal protective equipment

Hand protection	:	Splash protection: disposable nitrile rubber gloves e.g. Dermatril made by KCL or gloves from other manufacturers offering the same protection. Prolonged contact: Nitrile rubber gloves e.g. Camatril (>120 Min.) or butyl rubber gloves e.g. Butoject (>480 Min.) made by KCL or gloves from other manufacturers offering the same protection.
Eye protection	:	tightly fitting safety goggles.
Hygiene measures	:	When using do not eat or drink.
Protective measures	:	Avoid contact with eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	:	liquid
Color	:	colourless
Odor	:	alcoholic

Other data

solidification range	:	< -5 °C
initial boiling point	:	ca. 80 °C
Flash point	:	27 °C
		Method: DIN 51755 Part 1
Lower explosion limit	:	> 90% (V)
Vapour pressure	:	ca.50 hPa at 20 °C
Density	:	0,890 g/cm ³ at 20 °C
Water solubility	:	at 20 °C in all proportions
PH	:	ca.7at 1.000 g/l (20 °C)
flow time	:	< 15s at 20 °C
		Method: DIN 53211

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10. STABILITY AND REACTIVITY

Hazardous reactions : None reasonably foreseeable.
 Hazardous decomposition products : None reasonably foreseeable.

11. TOXICOLOGICAL INFORMATION

Further Information : The classification was made according to the calculation procedure of the Dangerous Preparations Directive.

12. ECOLOGICAL INFORMATION

Biodegradability : Readily biodegradable.
 Method: OECD 301D / EEC 84/449 C6
 Chemical Oxygen Demand : 13000 mg/l
 (COD) : Test substance: 1% solution
 Further Information : Avoid subsoil penetration.

13. DISPOSAL CONSIDERATIONS

Product : Dispose of the product according to the defined EWC (European Waste Code) No.
 Contaminated packaging : Take empty packaging to the recycling plant.
 Waste key for the unused Product : EWC 070699
 Waste key for the unused product Group) : Waste material of HZVA from fats, lubricants, soaps, detergents, disinfectants and personal protection products.

14. TRANSPORT INFORMATION

ADR	:	UN-No	1987
		Class	3
		Classification Code	F1
		Packaging group	III
		ADR/RID-Labels	3
		ICAO-Labels	30
		Description of the goods	ALCOHOLS, N.O.S. (Ethanol, Propan-1-ol)
IMDG	:	UN-No	1987
		Class	3
		EmS	F-E
		Packaging group	III
		Marine pollutant	---
		Description of the goods	ALCOHOLS, N.O.S. (Ethanol, Propan-1-ol)

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IATA	:	UN-No	1987
		Class	3
		Packaging group	III
		Description of the goods	ALCOHOLS, N.O.S. (Ethanol, Propan-1-ol)

15. REGULATORY INFORMATION

General advice	:	In the EU, this product is classified and labeled in accordance with EC directives or respective national laws.	
Symbol	:	Xi	Irritant
R-phrase(s)	:	R10	Flammable.
		R41	Risk of serious damage to eyes.
		R67	Vapors may cause drowsiness and dizziness.
S-phrase(s)	:	S23	Do not breathe spray.
		S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
		S39	Wear eye/face protection.
		S51	Use only in well-ventilated areas.

National legislation

Legislation on the control of major-accident hazards involving dangerous substances	:	The product belongs to at least one of the categories 1 through 11 mentioned in Annex 1 of the Directive 1996/82/EC concerning the control of major accident hazards.	
VOC-Content	:	0,60 kg/kg (Switzerland only)	
Switzerland	:	Swiss Poison Class 4 BAG / OFSP T 611484, BAG / OFSP E 1364	

16. OTHER INFORMATION

Application	:	Information on uses can be found in a separate preparation / product brochure.
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Text of R phrases mentioned in Section 2

R11	Highly flammable.
R41	Risk of serious damage to eyes.
R67	Vapours may cause drowsiness and dizziness.

The information given is only of use for possible safety requirements and is based on our actual knowledge. This information does not guarantee any properties. It is the responsibility of the receiver / user of our products to follow existing laws and regulations.

Changes compared with the previous edition are marked in the margin.