

**Safety data for hazardous substances and preparations  
according to EC regulation 91/155/EEC**

**1. Substance/description of preparation and company**

**SURFACE GUARDIAN (r) FOAM SWAB – X18040D**

**Sold by:**  
Kensington Technology Group  
2000 Alameda de las Pulgas Phone: (650) 572-2700  
San Mateo, CA 94402 Fax: (650) 572-9675  
**Emergency telephone:**  
(800) 535-5053 Outside US call collect: 1-352-323-3500

Trade name:

- 1.1 **description of preparation**  
Propanol-2
- producer/supplier** Taiwan Bor Ying Corp.  
street / P.O. Box 59, Lane 369, Kimmen St. Pan Chiao / -  
nationality / zip / city ROC – 00000 Taipei Hsien  
telephone: 00886-2-26815456  
telefax: 00886-2-2682-6590
- 1.3 **responsible department** dept. Chemicals

Date prepared: 8/6/2004

**2. Composition / information on components of preparation**

- 2.1 **general characterisation**  
solvent
  - 2.2 **hazardous components**
- | <u>CAS No.</u> | <u>description</u> | <u>weight - %</u> | <u>symbol</u> | <u>R-sent.</u> |
|----------------|--------------------|-------------------|---------------|----------------|
| 67-63-0        | Propanol-2         | 100               | F             | 11             |

**3. Possible dangers**

- 3.1 **description of dangers:**  
inflammable
- 3.2 **special information on danger for people and environment:** -

**4. First aid measures**

- 4.1 **general information**  
remove affected person from dangerous area and lay down.  
remove clothes touched by the product.  
supply fresh air or oxygen
- 4.2 **inhaling**  
supply fresh air or oxygen Consult emergency doctor if complaints are permanent.  
in case of unconsciousness use stable lateral-position for transport.
- 4.3 **skin contact**  
wash off with water and soap immediately and rinse thoroughly.  
in case of permanent skin irritation consult doctor.
- 4.4 **eye contact**  
rinse open eyes under running water for various minutes. Consult doctor.
- 4.5 **swallowing**  
rinse out mouth and drink water afterwards, do not provoke vomiting and consult a doctor immediately.
- 4.6 **information for the doctor**  
danger of aspiration when swallowing or vomiting.

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## 5. Firefighting measures

- 5.1 **suitable extinguishing agents:**  
CO<sub>2</sub>, firefighting powder or spray jetted water. Fight larger fires with spray jetted water or alcohol resistant foam.
- 5.2 **extinguishing agents not suitable for safety reasons:**  
fully jetted water
- 5.3 **special dangers caused by the material or the preparation, its combustion product or developing gases:**  
development of explosive air-gas mixtures possible.  
carbon monoxide can develop in a fire.
- 5.4 **special protection equipment for firefighting**  
wear breathing apparatus independent from the circulating air.  
wear a complete protection suit.  
depending on size of the fire, coordinate with fire in the surroundings.
- 5.5 **additional information**  
cool endangered containers with sprayed water.

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## 6. Measures for accidental release

- see point 8 + 13.
- 6.1 **personal safety measures:**  
wear protective clothing. Keep unprotected people away.  
provide for sufficient ventilation.  
keep away ignition sources.  
avoid contact with eyes and skin.
- 6.2 **environmental protection measures:**  
do not introduce larger quantities into sewerage system or into waters.  
inform responsible authorities when sewerage system or waters are affected.  
inform responsible authorities when soil is affected.
- 6.3 **cleaning methods:**  
take up with liquid-absorbing material ( sand, infusorial earth, acid binder, universal binder).  
provide for sufficient ventilation.  
dispose contaminated waste material according to point 13.

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## 7. Storage and handling

- 7.1 **handling**
- 7.1.1 **information for safe handling:**  
cool and dry storage in tightly closed Gebinden.  
provide for good ventilation/suction filter at the workplace.  
provide for good ventilation at ground level (vapor is heavier than air).
- 7.1.2 **information on protection of fire and explosion:**  
inflammable liquid. Vapor is heavier than air and can build explosive mixtures with air.  
Cool endangered containers with water.  
Keep away ignition sources and do not smoke.  
take measures against electrostatic charging.
- 7.2 **storage**
- 7.2.1 **requirements for storage rooms and containers:**  
store in a cool place.  
provide for solvent-resistant and tightly closing floor.
- 7.2.2 **information for materials stored together:**  
separate storage of inflammable and explosive materials and objects
- 7.2.3 **special storage conditions:**  
keep container tightly closed. Cool storage.  
protect from heat and direct sun exposure.  
heating leads to increased pressure and danger of bursting.  
store container in a room with good ventilation.

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## 8. Limitations of exposition and personal protection equipment

### 8.1 additional information for the arrangement of technical plants:

see point 7

### 8.2 components with limit values that are relevant to the workplace

CAS-No.	description of material	type	value	unit
67-63-0	2-Propanol	MAK	500	mg/m <sup>3</sup>
			200	ml/m <sup>3</sup>
		TRGS 900	980	mg/m <sup>3</sup>
			400	ml/m <sup>3</sup>

### 8.3 personal protection equipment

#### 8.3.1 breathing protection:

wear protective mask in case of regular exposure and inappropriate ventilation.  
gasfilter A 2

#### 8.3.2 hand protection:

wear solvent-resistant protective gloves in case of regular exposure.

#### 8.3.3 eye protection:

wear tight protective glasses in case of regular exposure.

#### 8.3.4 body protection: n.a.

#### 8.3.5 general protection and hygiene measures:

take the usual measures for the use of chemicals.

take off dirty, soaked clothes.

keep away from food, drinks and food stuff.

do not eat, drink and smoke at work.

wash your hands and use protective skin lotion before breaks and before end of work.

avoid eye and skin contact.

do not inhale gases / vapors / aerosols.

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## 9. Physical and chemical properties

### 9.1 appearance/smell:

state: liquid  
color: transparent  
odor: alcoholic

### 9.2 data relevant for safety

pH value, undiluted: ≈7,0

#### change of state

boiling point/boiling area (in °C): 82

melting point/melting area (in °C): - 89,5

#### flammability

flaming point (°C): 12 (in closed crucible)

ignition temperatur: 425 °C

#### fire-fostering properties

danger of explosion: product is not explosive, but the development of explosive air-vapor mixtures is possible.

#### explosion limits:

lower explosion limit: 2,0 (Vol.%)

upper explosion limit: 12,0 (Vol.%)

steam pressure ( mbar ): 48

density 20°C (g/ cm<sup>3</sup>): 0,785

#### solubility

water solubility: mixable

viscosity, dyn. ( mPa x s ): 2,43

content of solvent (weight.%): 100 %

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## 10. Stability and reactivity

- 10.1 **conditions to be avoided**  
warmth, flames
- 10.2 **material to be avoided**  
reaction with strong oxidizing agents and strong acids.
- 10.3 **hazardous decomposition products**  
no hazardous decomposition products known if used as agreed.
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## 11. Information concerning toxicology

### 11.1 toxicologic tests

#### acute toxicity

LD<sub>50</sub> / LC<sub>50</sub> - values relevant for classification:

component	type	value	species
2-Propanol	orally	4570 mg / kg	rat
	dermally	13400 mg / kg	rab
	inhaling	30 mg / L / 4 h	rat

#### primary irritative effects:

on the skin: light effects

in the eye: light effects

**sensitizing effects:** sensitizing effects possible

**subacute to chronic toxicity:** regular exposure can damage the liver

#### additional toxicologic information:

Inhaling of concentrated vapors as well as oral taking can lead to narcotic conditions.

- 11.2 **experience with humans:** long or regular contact can extract fat from the skin.  
High concentration can provoke an contact eczema
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## 12. Information on ecology

### 1. information about elimination (persistence and decomposability):

easy biological decomposition of the product.

**2. behavior in environmental compartments:** n.d.a.

### 3. ecotoxic effects

aqueous toxicity

fish toxicity: 100 mg/l/48h

LC 50 (leuciscus idus, DIN 38412, part 15)

daphnia toxicity: 100 mg/l/24h

EC 50 (daphnia magna, DIN 38412, part 11)

behavior in sewage plants:

disturbances of the decomposition activity of activated sludge cannot be expected if small quantities are correctly introduced into adapted biological sewage plants.

#### general information

hazard category for water:

WGK 1

do not introduce larger undiluted quantities into ground water, sewerage system or into waters.

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## 13. Information on disposal

13.1 **product:**

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13.2 **recommendation:**

comply with regulations of local authorities.  
do not introduce larger undiluted quantities into ground water, sewerage system or into waters.

13.3 **waste key number:**

553 15

labeling:

methanol and other liquid alcohols

13.4 **for uncleaned packaging:**

safe handling: empty container completely. Do not make holes into uncleaned containers, do not cut or weld them. Remains can possibly cause an explosion.

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## 14. Transport regulations

- 14.1 **road- / rail transport (GGVS/ADR / GGVE/RID)**  
class: 3  
number / letter: 3b  
warning sign - danger - No.: 3  
material - / UN - No.: 1219  
description of good 1219, 2-Propanol  
comment: for regulations concerning reduced quantities see RN 2301a.
- 14.2 **transport by sea ship( GGVSee / IMDG )**  
class: 3.2  
page: 3244  
packaging group: II  
EmS-No.: 3-06  
MFAG : 305  
technically correct name: isopropanol  
marine pollutant: no
- 14.3 **transport by plane ( ICAO - TI / IATA -DGR )**  
class: 3  
packaging group: II  
technically correct name: isopropanol
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## 15. Regulations

**labeling regulation on hazardous material including EC regulations (67/548/EEC as well as 88/379/EEC)**

- symbol: F easy to inflammable  
R-sentences: 11 easy to inflammable  
S-sentences: 2 do not put in hands of children  
51 use only in adequately ventilated rooms  
7 keep container tightly closed  
16 Keep away ignition sources a. do not smoke.

### **national regulations**

- accident regulation: 2  
TA-air: III  
VbF: B  
hazard category for water: WGK 1  
comply with limitations of use / limitations of distribution according to § 15 Gef.Stoff-VO.  
comply with accident instructions BG: M 017 „solvents“.
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## 16. additional information

- the information refers to the product in its condition on delivery.  
department issuing data sheet: Dep. Chemicals
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### **Legend:**

n.a. = not applicable / n.a. = not available / n.t. = not tested / n.d.a. = no data available / n.c.d. = not called differently

VbF = regulation on inflammable liquids

MAK = maximum concentration at workplace in mg/m<sup>3</sup> = ppm

WGK1 = slightly endangering water

## Taiwan Bor Ying Corp.

The data listed here is supposed to describe the product with respect to the necessary safety precautions. They do not aim at establishing certain properties, and they are based on the current level of our knowledge. No liability.