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
San Mateo, CA 94402
Phone: (650) 572-2700
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

1.2 producer/supplier
Taiwan Bor Ying Corp.

1.3 street / P.O. Box
59, Lane 369, Kimmen St. Pan Chiao / -

1.4 nationality / zip / city
ROC – 00000 Taipei Hsien

1.5 telephone:
00886-2-26815456

1.6 telefax:
00886-2-26826590

1.7 responsible department
dep. Chemicals

Date prepared: 8/6/2004

2. Composition / information on components of preparation

2.1 general characterisation
solvent

2.2 hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>description</th>
<th>weight - %</th>
<th>symbol</th>
<th>R-sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>Propanol-2</td>
<td>100</td>
<td>F</td>
<td>11</td>
</tr>
</tbody>
</table>

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.
5. **Firefighting measures**

5.1 **suitable extinguishing agents:**
- CO2, 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.

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.

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.
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

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>description of material</th>
<th>type</th>
<th>value</th>
<th>unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>2-Propanol</td>
<td>MAK</td>
<td>500</td>
<td>mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td>ml/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TRGS 500</td>
<td>980</td>
<td>mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>400</td>
<td>ml/m³</td>
</tr>
</tbody>
</table>

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.

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
inflammability
flaming point (°C): 12 (in closed crucible)
ignition temperature: 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 ):
density 20°C (g/ cm³):
48
0.785
solubility
water solubility: mixable
viscosity, dyn. ( mPa x s ):
content of solvent (weight %): 2.43
100 %
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.

11. Information concerning toxicology
11.1 toxicologic tests
acute toxicity
LD₅₀ / LC₅₀ - values relevant for classification:

<table>
<thead>
<tr>
<th>component</th>
<th>type</th>
<th>value</th>
<th>species</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanol</td>
<td>orally</td>
<td>4570 mg / kg</td>
<td>rat</td>
</tr>
<tr>
<td></td>
<td>dermally</td>
<td>13400 mg / kg</td>
<td>rab</td>
</tr>
<tr>
<td></td>
<td>inhaing</td>
<td>30 mg / L / 4 h</td>
<td>rat</td>
</tr>
</tbody>
</table>

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

12. Information on ecology
1. Information about elimination (persistency and decompositability):
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.

13. Information on disposal
13.1 product: 
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.
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/m3 = ppm
- WGK1 = slightly endangering water

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**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.