Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
PELIKAN ARTLINE STAMP PAD INK (BLACK, BLUE & RED)

SYNONYMS
"stamp pad ink"

PRODUCT USE
Stamp pad ink.

SUPPLIER
Company: Pelikan Artline
Address: 2 Coronation Avenue
Kings Park
NSW 2148
Australia
Telephone: +61 2 8801 2273

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

RISK
■ Irritating to eyes, respiratory system and skin.

SAFETY
■ Do not breathe gas/fumes/vapour/spray.
■ Avoid contact with skin.
■ Wear eye/face protection.
■ To clean the floor and all objects contaminated by this material, use water.
■ In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
■ If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>56-81-5</td>
<td>21</td>
</tr>
<tr>
<td>sorbitan monooleate, ethoxylated</td>
<td>9005-65-6</td>
<td>16</td>
</tr>
<tr>
<td>diethylene glycol</td>
<td>111-46-6</td>
<td>9</td>
</tr>
<tr>
<td>pigment</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>48</td>
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</tbody>
</table>

Section 4 - FIRST AID MEASURES

SWALLOWED
■ - Immediately give a glass of water.
■ - First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE
■ - If this product comes in contact with the eyes:
■ - Wash out immediately with fresh running water.
■ - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
■ - Seek medical attention without delay; if pain persists or recurs seek medical attention.
■ - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN
■ - If skin contact occurs:
■ - Immediately remove all contaminated clothing, including footwear.
■ - Flush skin and hair with running water (and soap if available).
■ - Seek medical attention in event of irritation.

continued...
INHALED
- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

NOTES TO PHYSICIAN
- Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
- The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas. Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances. In such an event consider:
  - foam.

FIRE FIGHTING
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering means or water courses.
- Use fire fighting procedures suitable for surrounding area.

FIRE/EXPLOSION HAZARD
- The emulsion is not combustible under normal conditions. However, it will break down under fire conditions and the hydrocarbon component will burn. Decomposes on heating and produces toxic fumes of: carbon dioxide (CO2), acrolein, other pyrolysis products typical of burning organic material. May emit corrosive fumes.

FIRE INCOMPATIBILITY
- None known.

HAZCHEM
None

Personal Protective Equipment
Gloves, boots (chemical resistant).

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
- Slippery when spilt.
  - Clean up all spills immediately.
  - Avoid breathing vapours and contact with skin and eyes.
  - Control personal contact by using protective equipment.
  - Contain and absorb spill with sand, earth, inert material or vermiculite.

MAJOR SPILLS
- Slippery when spilt.
  Moderate hazard.
  - Clear area of personnel and move upwind.
  - Alert Fire Brigade and tell them location and nature of hazard.
  - Wear breathing apparatus plus protective gloves.
  - Prevent, by any means available, spillage from entering drains or water course.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
- DO NOT allow clothing wet with material to stay in contact with skin.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

SUITABLE CONTAINER
- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.

continued...
PELIKAN ARTLINE STAMP PAD INK (BLACK, BLUE & RED)

Chemwatch Independent Material Safety Data Sheet
Issue Date: 7-Jan-2011
C9317EC

- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY
- Glycerol:
  - reacts violently with strong oxidisers, acetic anhydride, alkali metal hydrides, calcium hypochlorite, calcium oxychloride, chlorine, chromic anhydride, chromium oxides, ethylene oxide, hydrogen peroxide, phosphorous triiodide, potassium chloride, potassium permanganate, potassium peroxide, silver perchlorate, sodium hydride, sodium peroxide, sodium triiodide, sodium tetrahydroborate.is incompatible with strong acids, caustics, aliphatic amines, isocyanates, uranium fluoride.
  - is able to polymerise above 145 C.
  - Glycols and their ethers undergo violent decomposition in contact with 70% perchloric acid. This seems likely to involve formation of the glycol perchlorate esters (after scission of ethers) which are explosive, those of ethylene glycol and 3-chloro-1,2-propanediol being more powerful than glyceryl nitrate, and the former so sensitive that it explodes on addition of water.
None known.

STORAGE REQUIREMENTS
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

---

Section 7 - HANDLING AND STORAGE

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

<table>
<thead>
<tr>
<th>Source</th>
<th>Material</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>Notes</th>
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<tr>
<td>Australia Exposure</td>
<td>glycerol (Glycerin mist</td>
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<td>10</td>
<td>(see Chapter 14)</td>
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<tr>
<td>Standards</td>
<td>(a)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Australia Exposure</td>
<td>diethylene glycol (2, 2'</td>
<td>23</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Standards</td>
<td>Oxybis[ethanol])</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

The following materials had no OELs on our records
- sorbitan monooleate, ethoxylated: CAS:9005- 65- 6
- water:                          CAS:7732-18- 5

PERSONAL PROTECTION

RESPIRATOR
Type A-P Filter of sufficient capacity

EYE
- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET
- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.
Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:
  - frequency and duration of contact.
  - chemical resistance of glove material.
  - glove thickness and
  - dexterity.

OTHER
- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

ENGINEERING CONTROLS
- General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Coloured liquid; mixes with water.

continued...
### PHYSICAL PROPERTIES

**Liquid.** Mixes with water.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tr>
<td>Boiling Range (°C)</td>
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<tr>
<td>Flash Point (°C)</td>
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</tr>
<tr>
<td>Decomposition Temp (°C)</td>
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</tr>
<tr>
<td>Autoignition Temp (°C)</td>
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<tr>
<td>Upper Explosive Limit (%)</td>
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<tr>
<td>Lower Explosive Limit (%)</td>
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<td>Volatile Component (%vol)</td>
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<tr>
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<td>Viscosity</td>
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<tr>
<td>Solubility in water (g/L)</td>
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<tr>
<td>pH (1% solution)</td>
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<tr>
<td>pH (as supplied)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapour Pressure (kPa)</td>
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</tr>
<tr>
<td>Specific Gravity (water=1)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Relative Vapour Density (air=1)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Available</td>
</tr>
</tbody>
</table>
| log Kow (Sangster 1997)                       | -1.76          

**glycerol**

**log Kow (Sangster 1997):**

### Section 10 - STABILITY AND REACTIVITY

**CONDITIONS CONTRIBUTING TO INSTABILITY**

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

*For incompatible materials - refer to Section 7 - Handling and Storage.*

### Section 11 - TOXICOLOGICAL INFORMATION

#### POTENTIAL HEALTH EFFECTS

**ACUTE HEALTH EFFECTS**

- Irritating to eyes, respiratory system and skin.

**CHRONIC HEALTH EFFECTS**

- Not applicable.

#### TOXICITY AND IRRITATION

- unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

**WATER:**

**PELIKAN ARTLINE STAMP PAD INK (BLACK, BLUE & RED):**

- No significant acute toxicological data identified in literature search.

**DIETHYLENE GLYCOL:**

- The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.

**PELIKAN ARTLINE STAMP PAD INK (BLACK, BLUE & RED):**

- Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergic condition known as reactive Airways Dysfunction Syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

**GLYCEROL:**

**TOXICITY**

- Oral (Rat) LD50: 12600 mg/kg
- Oral (Guinea pig) LD50: 7750 mg/kg
- Oral (Human) TDL0: 1428 mg/kg
- Intraperitoneal (Rat) LD50: 4420 mg/kg
- Subcutaneous (Rat) LD50: 100 mg/kg
- Intravenous (Rat) LD50: 5566 mg/kg
- Oral (Mouse) LD50: 4090 mg/kg
- Intraperitoneal (Mouse) LD50: 8700 mg/kg
- Subcutaneous (Mouse) LD50: 91 mg/kg
- Intravenous (Mouse) LD50: 4250 mg/kg

- For glycerol:
  - Acute toxicity: Glycerol is of a low order of acute oral and dermal toxicity with LD50 values in excess of 4000 mg/kg bw. At very high dose levels, the signs of toxicity include tremor and hyperaemia of the gastro-intestinal tract.

**SORBITAN MONOOLEATE, ETHOXYLATED:**

- The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

For Group D aliphatic esters:(sorbitan fatty esters)

According to a classification scheme described by the American Chemistry Council' Aliphatic Esters Panel, Group D substances are esters of monoacids, mainly common fatty acids, and sorbitan (which is derived from sorbitol - a natural carbohydrate sweetener). The fatty acids include lauric, stearic, oleic acids and coca fatty acids (mainly lauric and myristic acids).

**continued...**
PELIKAN ARTLINE STAMP PAD INK (BLACK, BLUE & RED)

Chemwatch Independent Material Safety Data Sheet
Issue Date: 7-Jan-2011
C9317EC

Chemwatch Independent Material Safety Data Sheet
Issue Date: 7-Jan-2011 CHEMWATCH 4747-95
C9317EC Version No:2.0
CD 2010/4 Page 5 of 6

Section 11 - TOXICOLOGICAL INFORMATION

DIETHYLENE GLYCOL:

TOXICITY
Oral (human) LDLo: 1000 mg/kg
Oral (rat) LD50: 12565 mg/kg
Dermal (rabbit) LD50: 11890 mg/kg

IRRITATION
Skin (human): 112 mg/3d- I Mild
Skin (rabbit): 500 mg Mild
Eye (rabbit) 50 mg Mild

Section 12 - ECOLOGICAL INFORMATION

No data

Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
<th>Bioaccumulation</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>LOW</td>
<td></td>
<td>LOW</td>
<td>HIGH</td>
</tr>
<tr>
<td>diethylene glycol</td>
<td>LOW</td>
<td></td>
<td>LOW</td>
<td>HIGH</td>
</tr>
</tbody>
</table>

Section 13 - DISPOSAL CONSIDERATIONS

- Legislation addressing waste disposal requirements may differ by country, state and/or territory. Each user must refer to laws operating in their area.
- A Hierarchy of Controls seems to be common - the user should investigate:
  - Reduction.
  - DO NOT allow wash water from cleaning or process equipment to enter drains.
  - It may be necessary to collect all wash water for treatment before disposal.
  - In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
  - Where in doubt contact the responsible authority.
  - Recycle wherever possible.
  - Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
  - Dispose of by: burial in a land-fill specifically licenced to accept chemical and/or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
  - Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM:
None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE None

REGULATIONS

Regulations for ingredients

glycerol (CAS: 56-81-5) is found on the following regulatory lists;
"Australia Exposure Standards";"Australia High Volume Industrial Chemical List (HVICL)";"Australia Inventory of Chemical Substances (AICS)";
"Australia Hazardous Substances";"Australia High Volume Industrial Chemical List (HVICL)";"Australia Inventory of Chemical Substances (AICS)";
"Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix C";"Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5";"Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6";"GESAMP/EHS Composite List - GESAMP Hazard Profiles";"IMO IBC Code Chapter 18: List of products to which the Code does not apply";"IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances";"International Council of Chemical Associations (ICCA) - High Production Volume List";"International Fragrance Association (IFRA) Survey: Transparency List";"OECD Representative List of High Production Volume (HPV) Chemicals"
sorbitan monooleate, ethoxylated (CAS: 9005-65-6) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS)";"GESAMP/EHS Composite List - GESAMP Hazard Profiles";"International Fragrance Association (IFRA) Survey: Transparency List"
diethylene glycol (CAS: 111-46-6) is found on the following regulatory lists;
"Australia Exposure Standards";"Australia High Volume Industrial Chemical List (HVICL)";"Australia Inventory of Chemical Substances (AICS)";"Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix C";"Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5";"Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6";"GESAMP/EHS Composite List - GESAMP Hazard Profiles";"IMO IBC Code Chapter 18: List of products to which the Code does not apply";"IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances";"International Council of Chemical Associations (ICCA) - High Production Volume List";
water (CAS: 7732-18-5) is found on the following regulatory lists:

- Australia Inventory of Chemical Substances (AICS)
- IMO IBC Code Chapter 18: List of products to which the Code does not apply
- International Fragrance Association (IFRA) Survey: Transparency List
- OECD Representative List of High Production Volume (HPV) Chemicals

No data for Pelikan Artline Stamp Pad Ink (Black, Blue & Red) (CW: 4747-95)

Section 16 - OTHER INFORMATION

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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This is the end of the MSDS.