

# Ink for water color pen-Navy Blue

Material Safety Data sheet  
2013-02-05

SDS1301290011  
Version No.:1.0  
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## SAFETY DATA SHEET

### SECTION 1: Identification of the substance / mixture and of the company / undertaking

#### 1.1. Product Identifier

**Product name:** Ink for water color pen-Navy Blue  
**Chemical product name:** No data available  
**Synonyms:** No data available  
**Proper shipping name:** None  
**Chemical formula:** No data available  
**Other means of identification:** SHAH00364195-11  
**Index number:** No data available  
**ID number:** No data available  
**CAS number:** No data available  
**REACH registration number:** No data available  
**EC number:** Not Available

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Relevant identified uses:** Used according to manufacturer's directions. Drawing  
**Uses advised against:** No data available

#### 1.3. Details of the supplier and importer of the safety data sheet

|                                 |   |                  |                                      |
|---------------------------------|---|------------------|--------------------------------------|
| <b>Registered company name:</b> | WENZHOUS KAMEN STATIONERY & SPORTS MANUFACTURING CO., LTD.        | <b>Importer:</b> | SIPLEC                               |
| <b>Address:</b>                 | 135, SIMINGSHAN ROAD, ECONOMY & DEVELOPMENT ZONE, WENZHOUS CHINA. | <b>Address:</b>  | LE PARTITIO 26 QUAIMARCEL BOYER94859 |
| <b>Telephone:</b>               | +86-577-86558716  |                  | IVRY SUR SEINEFRANCE                 |
| <b>Fax:</b>                     | No data available   |                  |                                      |
| <b>Email:</b>                   | No data available   |                  |                                      |
| <b>Website:</b>                 | No data available   |                  |                                      |

#### 1.4. Emergency telephone number

**Association / Organisation:** No data available  
**Other emergency telephone numbers:** +86-577-86558716

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**DSD classification:** In case of mixtures, classification has been prepared by following DPD (Directive 1999/45/EC) or CLP (Regulation (EC) No 1272/2008) regulations  
**DSD classification (additional):** No data available  
**DPD classification:** None under normal operating conditions.  
**CLP classification:** According to CLP no hazard category has been assigned  
**CLP classification (additional):** No data available

#### 2.2. Label elements

##### CLP label elements

No data available

**Signal word:** None  
**Hazard statement(s):** *Determined by Chemwatch using CLP criteria*  
**Additional Statement(s):** No data available  
**Supplementary statement(s):** No data available  
**Precautionary statement(s):** No data available

##### DSD / DPD label elements

Relevant risk statements are found in section 2.1

**Indication(s) of danger:** No data available  
**Safety advice:** None under normal operating conditions.

#### 2.3. Other hazards

**PBT/vPvB criteria** No data available

SECTION 3: Composition / information on ingredients

3.1. Substances

See 'Composition on ingredients' in section 3.2

3.2. Mixtures

| 1. CAS No<br>2. EC No<br>3. Index No<br>4. REACH No                                     | %[weight] | Name                          | Classification according to Directive 1999/45/EC [DPD] |                         | Classification according to (EC) No 1272/2008 [CLP]   |
|---|-----------|-------------------------------|--|-------------------------|---|
| 1. 7732-18-5<br>2. 231-791-2<br>3. No data available<br>4. No data available            | 83.4      | Water                         |  |                         | According to CLP no hazard category has been assigned   |
| 1. 56-81-5<br>2. 200-289-5<br>3. No data available<br>4. No data available              | 10        | Glycerin                      |  |                         | According to CLP no hazard category has been assigned   |
| 1. 107-21-1<br>2. 203-473-3<br>3. 603-027-00-1<br>4. No data available                  | 4         | Ethylene glycol               | Xn   | R22<br>R33              | Acute Tox. 4<br>STOT Rep. Exp. 2<br>CLP classification according to Annex VI of CLP (Regulation (EC) No 1272/2008)  |
| 1. 2650-18-2<br>2. 220-168-0<br>3. No data available<br>4. No data available            | 1.14      | C.I. Acid Blue 9              |  |                         | According to CLP no hazard category has been assigned   |
| 1. 3520-42-1<br>2. 222-529-8, 220-025-2<br>3. No data available<br>4. No data available | 1.14      | C.I. Acid Red 52, sodium salt |  |                         | According to CLP no hazard category has been assigned   |
| 1. 99-76-3<br>2. 202-785-7<br>3. No data available<br>4. No data available              | 0.2       | Methyl paraben                |  |                         | According to CLP no hazard category has been assigned   |
| 1. 9016-45-9<br>2. 500-024-6<br>3. No data available<br>4. No data available            | 0.07      | Nonylphenol, ethoxylated      | Xn<br>N  | R22<br>R51/53<br>R36/38 | <ul style="list-style-type: none"><li>Acute Toxicity Category 4</li><li>Chronic Aquatic Hazard Category 2</li><li>Eye Irritation Category 2A</li><li>Skin Corrosion/Irritation Category 2</li></ul> |
| 1. 7722-84-1<br>2. 231-765-0<br>3. 008-003-00-9<br>4. No data available                 | 0.05      | Hydrogen peroxide             | O<br>C   | R9<br>R35<br>R20/22     | Ox. Liq. 1<br>Acute Tox. 4<br>Acute Tox. 4<br>Skin Corr. 1<br><br>CLP classification according to Annex VI of CLP (Regulation (EC) No 1272/2008)  |

SECTION 4: First aid measures

4.1. Description of first aid measures

|               |   |
|---------------|---|
| General:      | No data available   |
| Ingestion:    | <ul style="list-style-type: none"><li>Immediately give a glass of water.</li><li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li></ul>  |
| Eye Contact:  | If this product comes in contact with eyes: <ul style="list-style-type: none"><li>Wash out immediately with water.</li><li>If irritation continues, seek medical attention.</li><li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li></ul> |
| Skin Contact: | If skin or hair contact occurs: <ul style="list-style-type: none"><li>Flush skin and hair with running water (and soap if available).</li><li>Seek medical attention in event of irritation.</li></ul>  |
| Inhalation:   | <ul style="list-style-type: none"><li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li><li>Other measures are usually unnecessary.</li></ul>  |

4.2. Most important symptoms and effects, both acute and delayed

|               |  |
|---------------|--|
| Inhaled:      | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product  |
| Ingestion:    | The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern. |
| Skin Contact: | The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine  |

the skin prior to the use of the material and ensure that any external damage is suitably protected.

|          |   |
|----------|---|
| Eye:     | Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).  |
| Chronic: | <p>On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment. Animal studies have proven that trimethylmethane dyes are poorly absorbed from the gastro-intestinal tract. No reports are available on teratogenicity or reproductive effects of the dye. However, carcinogenicity studies have indicated that C.I. Acid Blue 9 (Brilliant Blue FCF) poses a potentially serious risk to human health, considering its ability to induce tumours in animals and its widespread use, especially as a colouring agent in food and drugs. The degree of carcinogenicity activity should be greatly clarified by on going animal feeding studies.</p> <p>There is negative or equivocal evidence of carcinogenicity by the oral route in numerous rat and mouse feeding studies. IARC (1978) concluded that C.I. Acid Blue 9 is carcinogenic by the subcutaneous route (an unlikely route of exposure for humans), and all tumors appear to be at the site of injection. The findings in short-term mutagenicity assays are mixed, and do not add to the level of concern.</p> <p>There has been a high level of concern expressed over the extent of exposure, because of the common use of this color additive in food products.</p> |

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

5.2. Special hazards arising from the substrate or mixture

|                       |             |
|-----------------------|-------------|
| Fire Incompatibility: | None known. |
|-----------------------|-------------|

5.3. Advice for firefighters

|                |  |
|----------------|--|
| Fire Fighting: | <ul style="list-style-type: none"><li>• Alert Fire Brigade and tell them location and nature of hazard.</li><li>• Wear breathing apparatus plus protective gloves in the event of a fire.</li><li>• Prevent, by any means available, spillage from entering drains or water courses.</li><li>• Use fire fighting procedures suitable for surrounding area.</li><li>• <b>DO NOT</b> approach containers suspected to be hot.</li><li>• Cool fire exposed containers with water spray from a protected location.</li><li>• If safe to do so, remove containers from path of fire.</li><li>• Equipment should be thoroughly decontaminated after use.</li></ul> |
|----------------|--|

|                        |  |
|------------------------|--|
| Fire/Explosion Hazard: | <ul style="list-style-type: none"><li>• Non combustible.</li><li>• Not considered a significant fire risk, however containers may burn.</li></ul> <p>May emit poisonous fumes.</p> |
|------------------------|--|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

|                                |                               |   |
|--------------------------------|-------------------------------|---|
| Personal Protective Equipment: | Glasses:<br>Chemical goggles. | Gloves:<br>PVC chemical resistant type. |
|--------------------------------|-------------------------------|---|

|               |   |
|---------------|---|
| Minor Spills: | <ul style="list-style-type: none"><li>• Clean up all spills immediately.</li><li>• Avoid breathing vapours and contact with skin and eyes.</li><li>• Control personal contact with the substance, by using protective equipment.</li><li>• Contain and absorb spill with sand, earth, inert material or vermiculite.</li><li>• Wipe up.</li><li>• Place in a suitable, labelled container for waste disposal.</li></ul> |
|---------------|---|

|               |   |
|---------------|---|
| Major Spills: | <p>Moderate hazard.</p> <ul style="list-style-type: none"><li>• Clear area of personnel and move upwind.</li><li>• Alert Fire Brigade and tell them location and nature of hazard.</li><li>• Wear breathing apparatus plus protective gloves.</li><li>• Prevent, by any means available, spillage from entering drains or water course.</li><li>• Stop leak if safe to do so.</li><li>• Contain spill with sand, earth or vermiculite.</li><li>• Collect recoverable product into labelled containers for recycling.</li><li>• Neutralise/decontaminate residue (see Section 13 for specific agent).</li><li>• Collect solid residues and seal in labelled drums for disposal.</li><li>• Wash area and prevent runoff into drains.</li><li>• After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.</li><li>• If contamination of drains or waterways occurs, advise emergency services.</li></ul> |
|---------------|---|

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safe handling

- 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.
- **DO NOT enter confined spaces until atmosphere has been checked.**
- **DO NOT allow material to contact humans, exposed food or food utensils.**
- Avoid contact with incompatible materials.
- When handling, **DO NOT eat, drink or smoke.**
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.

  

- Observe manufacturer's storage and handling recommendations contained within this MSDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Fire and explosion protection  
See section 5

Other information

Not applicable

7.2. Conditions for safe storage, including any incompatibilities

Suitable container:

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

Storage incompatibility: None known

Package Material Incompatibilities: No data available

7.3. Specific end use(s)

See section 1.2

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Derived No Effect Level (DNEL)

| Exposure Pattern                         | Workers           | General Population | Exposure Pattern                          | Workers           | General Population |
|--|-------------------|--------------------|---|-------------------|--------------------|
| Long term - dermal, systemic effects     | No data available | No data available  | Short term - dermal, systemic effects     | No data available | No data available  |
| Long term - inhalation, systemic effects | No data available | No data available  | Short term - inhalation, systemic effects | No data available | No data available  |
| Long term - oral, systemic effects       | No data available | No data available  | Short term - oral, systemic effects       | No data available | No data available  |
| Long term - dermal, local effects        | No data available | No data available  | Short term - dermal, local effects        | No data available | No data available  |
| Long term - inhalation, local effects    | No data available | No data available  | Short term - inhalation, local effects    | No data available | No data available  |

Occupational Exposure Limits (OEL)

| Source   | Material                                      | TWA ppm | TWA mg/m³ | STEL ppm | STEL mg/m³ | Peak ppm | Peak mg/m³ | TWA F/OC | Notes |
|--|---|---------|-----------|----------|------------|----------|------------|----------|-------|
| UK Workplace Exposure Limits (WELs)  | Glycerin (Glycerol, mist)                     |         | 10        |          |            |          |            |          |       |
| European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (English) | ethylene glycol (Ethylene glycol)             | 20      | 52        | 40       | 104        |          |            |          | Skin  |
| EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)                     | ethylene glycol (Ethylene glycol)             | 20      | 52        | 40       | 104        |          |            |          | Skin  |
| UK Workplace Exposure Limits (WELs)  | ethylene glycol (Ethane-1,2-diol particulate) |         | 10        |          | 10         |          |            |          | Sk    |
| UK Workplace Exposure Limits (WELs)  | ethylene glycol (Ethane-1,2-diol vapour)      | 20      | 52        | 40       | 4          |          |            |          | Sk    |
| UK Workplace Exposure Limits (WELs)  | Hydrogen peroxide                             | 1       | 1.4       | 2        | 2.8        |          |            |          |       |

The following materials had no OELs on our records

- water: CAS:7732-18-5
- C.I. Acid Blue 9: CAS:2650-18-2 CAS:1334-07-2 CAS:29519-65-1 CAS:37307-55-4 CAS:37307-56-5 CAS:37307-78-1 CAS:511534-54-6 CAS:51609-24-6 CAS:55819-29-9 CAS:86924-52-9 CAS:99149-43-6 CAS:12262-19-0
- C.I. Acid Red 52, sodium salt: CAS:3520-42-1 CAS:12777-86-5 CAS:39470-83-2 CAS:61261-16-3 CAS:74871-35-5 CAS:103947-10-0 CAS:104298-69-3 CAS:184827-20-1 CAS:192230-72-1 CAS:204996-41-8 CAS:288323-20-6 CAS:475472-70-9 CAS:2609-88-3
- methyl paraben: CAS:99-76-3
- nonylphenol, ethoxylated: CAS:9016-45-9

**Material Safety Data sheet**

2013-02-05

**EMERGENCY EXPOSURE LIMITS**

| Material          | Revised IDLH Value (mg/m <sup>3</sup> ) | Revised IDLH Value (ppm) |
|-------------------|---|--------------------------|
| Hydrogen peroxide | 0                                       | 75 [Unch]                |

**C.I. ACID BLUE 9; C.I. ACID RED 52, SODIUM SALT:**

It is the goal of the ACGIH (and other Agencies) to recommend TLVs (or their equivalent) for all substances for which there is evidence of health effects at airborne concentrations encountered in the workplace.

At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience). Airborne concentrations must be maintained as low as is practically possible and occupational exposure must be kept to a minimum.

**NOTE:** The ACGIH occupational exposure standard for Particles Not Otherwise Specified (P.N.O.S) does NOT apply.

**INK FOR WATER COLOR PEN-NAVY BLUE**

Not available

**WATER:**

No exposure limits set by NOHSC or ACGIH

**GLYCERIN:**

Not available

**ETHYLENE GLYCOL:**

Not available

**METHYL PARABEN:**

Not available

**NONYLPHENOL, ETHOXYLATED:**

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.

**HYDROGEN PEROXIDE:**

Not available

**8.2. Exposure controls****8.2.1. Appropriate engineering controls**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.

An approved self contained breathing apparatus (SCBA) may be required in some situations.

Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

| Type of Contaminant:  | Air Speed:                   |
|---|------------------------------|
| solvent, vapours, degreasing etc., evaporating from tank (in still air).  | 0.25-0.5 m/s (50-100 f/min.) |
| aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s (100-200 f/min.)   |
| direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)  | 1-2.5 m/s (200-500 f/min.)   |
| grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).  | 2.5-10 m/s (500-2000 f/min.) |

Within each range the appropriate value depends on:

| Lower end of the range                                     | Upper end of the range           |
|--|----------------------------------|
| 1: Room air currents minimal or favourable to capture      | 1: Disturbing room air currents  |
| 2: Contaminants of low toxicity or of nuisance value only. | 2: Contaminants of high toxicity |
| 3: Intermittent, low production.                           | 3: High production, heavy use    |
| 4: Large hood or large air mass in motion                  | 4: Small hood-local control only |

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

**8.2.2. Personal protection**

No data available

**Eye and face protection:**

- 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], [AS/NZS 1336 or national equivalent]

|                         |  |
|-------------------------|--|
| <b>Skin protection:</b> | See Hand protection: below   |
| <b>Hand protection:</b> | <p>The selection of the suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>• frequency and duration of contact,</li> <li>• chemical resistance of glove material,</li> <li>• glove thickness and</li> <li>• dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>• When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>• When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>• Contaminated gloves should be replaced.</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <ul style="list-style-type: none"> <li>• Wear chemical protective gloves, e.g. PVC.</li> <li>• Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> |

|                          |   |
|--------------------------|---|
| <b>Body protection:</b>  | See Other protection: below   |
| <b>Other protection:</b> | <ul style="list-style-type: none"> <li>• Overalls.</li> <li>• P.V.C. apron.</li> <li>• Barrier cream</li> <li>• Skin cleansing cream</li> <li>• Eye wash unit.</li> </ul> |

|                                 |   |
|---------------------------------|---|
| <b>Respiratory protection:</b>  |   |
| <b>Thermal hazards:</b>         | No data available   |
| <b>Recommended material(s):</b> | <p>Glove selection is based on a modified presentation of the:</p> <p><b>"Forsberg Clothing Performance Index".</b></p> <p>The effect(s) of the following substance(s) are taken into account in the <b>computer-generated</b> selection:</p> <p><b>Material</b> <b>CPI</b></p> <p>* CPI - Chemwatch Performance Index<br/>A: Best Selection<br/>B: Satisfactory; may degrade after 4 hours continuous immersion<br/>C: Poor to Dangerous Choice for other than short term immersion</p> <p><b>NOTE</b> As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -</p> <p>* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.</p> |

### 8.2.3. Environmental exposure controls

See section 12

## SECTION 9: Physical and chemical properties

| 9.1. Information on basic physical and chemical properties |                   |
|--|-------------------|
| <b>Appearance</b>  | No data available |
| <b>Odour</b>   | Odourless         |
| <b>Odour threshold</b>                                     | No data available |
| <b>Taste</b>   | No data available |
| <b>pH (1% solution)</b>                                    | No data available |
| <b>pH (as supplied)</b>                                    | <7                |
| <b>Melting point / freezing point (°C)</b>                 | 165-170           |
| <b>Initial boiling point and boiling range (°C)</b>        | No data available |
| <b>Flash Point (°C)</b>                                    | No data available |
| <b>Flammability</b>  | No data available |
| <b>Vapour Pressure (kPa)</b>                               | No data available |
| <b>Vapour density</b>                                      | No data available |
| <b>Relative Density (Water = 1)</b>                        | 0.9-0.91          |
| <b>Solubility in water (g/L)</b>                           | No data available |
| <b>Partition coefficient: n-octanol / water</b>            | No data available |
| <b>Auto-ignition temperature (°C)</b>                      | No data available |
| <b>Critical Temperature</b>                                | No data available |
| <b>Viscosity</b>   | No data available |
| <b>Explosive properties</b>                                | No data available |
| <b>Oxidising properties</b>                                | No data available |
| <b>Physical State</b>                                      | Liquid            |
| <b>Upper Explosive Limit (g/m3)</b>                        | No data available |
| <b>Lower Explosive Limit (g/m3)</b>                        | 20                |
| <b>Surface Tension</b>                                     | No data available |
| <b>Volatile Component (%vol)</b>                           | No data available |

2013-02-05

|                          |                   |
|--------------------------|-------------------|
| Gas group                | No data available |
| Molecular weight (g/mol) | No data available |
| Evaporation Rate         | No data available |
| IUCLID Remarks           | No data available |

**9.2. Other information**

No data available

**SECTION 10: Stability and reactivity**

|       |                    |  |
|-------|--------------------|--|
| 10.1. | Reactivity         | See section 7.2  |
| 10.2. | Chemical stability | <ul style="list-style-type: none"> <li>• Presence of incompatible materials.</li> <li>• Product is considered stable.</li> <li>• Hazardous polymerisation will not occur.</li> </ul> |

|       |                                    |                 |
|-------|------------------------------------|-----------------|
| 10.3. | Possibility of hazardous reactions | See section 7.2 |
| 10.4. | Conditions to avoid                | See section 7.2 |
| 10.5. | Incompatible materials             | See section 7.2 |
| 10.6. | Hazardous decomposition products   | See section 5.3 |

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

|                         |                   |
|-------------------------|-------------------|
| Mutagenicity:           | No data available |
| Reproductive Toxicity:  | No data available |
| Carcinogenicity:        | No data available |
| STOT - single exposure: | No data available |

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances  
 ETHYLENE GLYCOL:METHYL PARABEN:NONYLPHENOL, ETHOXYLATED:HYDROGEN PEROXIDE:GLYCERIN:

None assigned. Refer to individual constituents.

WATER:INK FOR WATER COLOR PEN-NAVY BLUE

No significant acute toxicological data identified in literature search.

INK FOR WATER COLOR PEN-NAVY BLUE~OTHERWATER:GLYCERIN:ETHYLENE GLYCOL:C.I. ACID BLUE 9:

|                                      |                     |
|--------------------------------------|---------------------|
| TOXICITY                             | IRRITATION          |
| Intravenous (Human) LDLo:0.033 mg/kg | Skin:Non-irritating |
| Oral (Rat) LD50:>2000 mg/kg *        | Eye:Non-irritating  |

The substance is classified by IARC as Group 3:

**NOT** classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

**NOTE:** Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.

Tumorigenic - neoplastic by RTECS criteria.Acute toxicity:In male rats the LD50 for Brilliant Blue FCF is given as more than 2000 mg/kg body weight. The LD50 for male and female rats is > 5000 mg Basacid Blue 755/kg body weight. In cats a single administration of 1 g Patent Blue AE (set at a purity of 37 % with sodium chloride) caused neither methaemoglobin formation nor an increased incidence of Heinz bodies in erythrocytes.Experiments on rabbits with Amido Blue AE showed no skin irritation; with Neptune Blue a very slight reddening was observed. In experiments with Basacid Blue 755 the irritation value could not be read, due to the skin staining. The rabbit eye was not irritated by Amido Blue AE and no effects of Neptune Blue were observed. For Basacid Blue an irritation value of . 4 is given. After 40 administrations of FD&C Blue No. 1, no irritation was determined on day 5 (score of 2), and some animals exhibited non-permanent staining of the eyes.Data are available on sensitisation in humans. In a difficult to assess sublingual test. In patients with allergic skin reactions positive reactions were seen in 14 % of 51 cases; no reactions were observed in 207 volunteers.General experience has shown particularly the eye irritation and skin sensitisation effects of a dye to depend greatly on the proportion of inorganic salts, such as sodium chloride, remaining in the finished product, since the saturated salt solution formed in contact with aqueous media can considerably increase the skin and eye damage caused by the compound. The positive results of the investigation by Mikkelsen et al. (1978) might also be due to hypersensitivity.Repeat dose toxicity:In rats the oral administration of Brilliant Blue for 75 weeks caused haemorrhaging in the adrenal gland, pituitary adenomas and uterine polyps, which the authors characterised as spontaneous effects (NOEL calculated to be 1554 and 1839 mg/kg body weight and day for male and female animals, respectively). In mice a dose of about 37.5 mg Brilliant Blue/kg body weight and day for 7 months caused liver damage, increased relative organ weights and increased activity of alkaline phosphatase (AP), aspartate aminotransferase (AST) and alanine aminotransferase (ALAT) in the plasma. Decreased AP activity was observed in the liver and heart; male animals also exhibited reduced AST activity. Reduced T3 values were determined in the serum of female animals and reduced T4 values in the serum of males. The number of white blood cells was increased in the plasma of both sexes, the number of red blood cells being additionally increased in female animals.Reproductive toxicity:Investigations on the reproductive toxicity are not available in the original. They do not indicate corresponding effects. One study showed anomalies in the kidneys of fetuses in the medium dose group only. In another investigation, the anomalies observed were equated with those seen in untreated animals.Genotoxicity:C.I. Acid Blue 9 was not mutagenic to several strains of Salmonella typhimurium tested with or without S9 However, in a later recent study, C.I. Acid Blue 9 was mutagenic in the Salmonella assay and the mouse lymphoma TK+/- assay. An in vivo - in vitro unscheduled DNA synthesis assay indicated that C.I. Acid Blue 9 was mutagenic. C.I. Acid Blue 9 was not mutagenic by the DNA repair with ?rec-Assay? or the in vivo mouse micronucleus assay.However, C.I. Acid Blue 9 did produce chromosomal aberrations in vitro in CHL cells. C.I. Acid Blue 9 was negative in the Fischer rat embryo cell transformation and BHK21 cell transformation assays.Carcinogenicity:Tumours of the kidney were determined in male mice of the medium dose group after the administration of about 200 mg Brilliant Blue FCF/kg body weight in the feed for 80 weeks (IARC 1978).Dermal applications to mice for 18 months did not cause an increased incidence of neoplasias. Subcutaneous administration to rats caused sarcomas at the injection site, which were associated with interference to repair mechanisms, due to the physico-chemical properties of the compounds injected.Long-term studies carried out on mice and rats with FD&C Blue No. 1 (Brilliant Blue FCF) gave no indication of tumours, nor did another study performed with this compound on rats for 2 years (up to about 5000 mg/kg body weight and day) (\* BUA Report 242 September 242C.I. ACID RED 52, SODIUM SALT:

|                               |              |
|-------------------------------|--------------|
| TOXICITY                      | IRRITATION   |
| Oral (mouse) LD50:10300 mg/kg | Nil Reported |

Hamster cell mutagenMETHYL PARABEN:NONYLPHENOL, ETHOXYLATED:HYDROGEN PEROXIDE:SKIN

C.I. Acid Red 52, sodium salt GESAMP/EHS Composite List - GESAMP Hazard Profiles

D1: skin irritation/corrosion

(1)



## SECTION 12: Ecological information

### 12.1. Toxicity

|  |                   |
|--|-------------------|
| <b>Fish:</b>                             | No data available |
| <b>Daphnia Magna:</b>                    | No data available |
| <b>Algae:</b>                            | No data available |
| <b>Toxic to aquatic micro-organisms:</b> | No data available |

C.I. ACID BLUE 9: NONYLPHENOL, ETHOXYLATED; HYDROGEN PEROXIDE; ETHYLENE GLYCOL:

**DO NOT discharge into sewer or waterways.**

C.I. ACID RED 52, SODIUM SALT: C.I. ACID BLUE 9:

for acid dyes:

#### Environmental fate:

Many dyes are visible in water at concentrations as low as 1 mg/l. Textile-processing waste waters, typically with a dye content in the range 10- 200 mg /l are therefore usually highly coloured and discharge in open waters presents an aesthetic problem. As dyes are designed to be chemically and photolytically stable, they are highly persistent in natural environments. It is thus unlikely that they, in general, will give positive results in short-term tests for aerobic biodegradability. The release of dyes may therefore present an ecotoxic hazard and introduces the potential danger of bioaccumulation that may eventually affect man by transport through the food chain.

In general the ionic dyes will be almost completely or partly dissociated in an aqueous solution. Solubility in the range 100 mg/l to 80,000 mg/l has been reported for the ionic azo dyes. In addition, they would be expected to have a high to a moderate mobility in soil, sediment and particulate matter, indicated by the low K<sub>oc</sub> values. However, due to their ionic nature, they adsorb as a result of ion-exchange processes. Acid dyes have high fixation rates, being attracted to positively charged substrates (e.g., nitrogen-containing particles, cationic metals) and consequently they can settle out to bed sediments or wastewater treatment plant (WWTP) sludge.

In addition, ionic compounds are not considered to be able to volatilise neither from moist nor dry surfaces, and the vapour pressures for these dyes are very low.

#### Ecotoxicity:

Analysis of over 200 acid dyes indicates that some monoacid and diacid dyes show moderate to high toxicity (that is acute values <100 mg/l and < 1 mg/l) to fish and aquatic organisms. Dyes with three or more acid groups show low toxicity (that is acute values >100 mg/l) towards fish and invertebrates. All acid dyes show moderate toxicity towards green algae. The effects on algae were not the result of direct toxicity but represented an indirect effect due to shading.

Algae are generally susceptible to dyes, but the inhibitory effect is thought to be related to light inhibition at high dye concentrations, rather than a direct inhibitory effect of the dyes. This effect may account for up to 50% of the inhibition observed.

Virtually all dyes from all chemically distinct groups are prone to fungal oxidation but there are large differences between fungal species with respect to their catalysing power and dye selectivity. A clear relationship between dye structure and fungal dye biodegradability has not been established. Fungal degradation of aromatic structures is a secondary metabolic event that starts when nutrients (C, N and S) become limiting. Therefore, while the enzymes are optimally expressed under starving conditions, supplementation of energy substrates and nutrients are necessary for propagation of the cultures.

Some chelated dyes, i.e., Al, Co, Cr, Fe, have shown moderate toxicity towards fish and daphnids and the toxicity has not been explained by the residual free (unchelated) metal ion in the dye product.

C.I. ACID BLUE 9: Environmental fate: Based on available test results (modified Zahn-Wellens test following OECD 301 B) C.I. Acid Blue 9 is considered to be possibly biodegradable (45 % after 42 days) according to criteria of the study author. Although other investigations under specific test conditions (anaerobic conditions, pre-treatment with reagents) indicate biodegradability, they are not comparable with the actual conditions in a typical sewage plant. Experimental values on the photochemical oxidative degradation are not available. When the dye was used to inhibit algae in ponds, photolytic degradation appeared more likely, with an assumed half-life of up to two months. Bioaccumulation is unlikely, due to the compound's ionic nature. The target compartment for environmental distribution is assumed to be the hydrosphere. Elimination value: 50-100% Ecotoxicity: In a test of bacterial toxicity following DIN 38 412, Part 27 (draft), an EC<sub>50</sub> (0.5 h) of > 10 000 mg/l was determined. Specific ecotoxicologic studies on algae are not available. Tests on the effect on Daphniae according to Directive 79/831/EEC gave an EC<sub>50</sub> (48 h) of > 100 mg/l. Fish tests following DIN 38 412 L 15 resulted in an LC<sub>50</sub> (96 h) of > 220 and < 460 mg/l. Fish LC<sub>0</sub> (48 h): rainbow trout >500 mg/l Daphnia EC<sub>50</sub>: >100 mg/l METHYL PARABEN:

Marine Pollutant

Yes

NONYLPHENOL, ETHOXYLATED:

Marine Pollutant

Yes

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

### 12.2. Persistence and degradability

| Ingredient                        | Persistence: Water/Soil | Persistence: Air  |
|-----------------------------------|-------------------------|-------------------|
| Ink for water color pen-Navy Blue | No Data Available       | No Data Available |
| Glycerin                          | LOW                     | No Data Available |
| Ethylene glycol                   | LOW                     | MED               |
| C.I. Acid Blue 9                  | HIGH                    | No Data Available |
| C.I. Acid Red 52, sodium salt     | No Data Available       | No Data Available |
| Methyl paraben                    | LOW                     | No Data Available |
| Nonylphenol, ethoxylated          | No Data Available       | No Data Available |
| Hydrogen peroxide                 | LOW                     | No Data Available |

### 12.3. Bioaccumulative potential

| Ingredient                    | Bioaccumulation |
|-------------------------------|-----------------|
| Glycerin                      | LOW             |
| Ethylene glycol               | LOW             |
| C.I. Acid Blue 9              | LOW             |
| C.I. Acid Red 52, sodium salt | LOW             |
| Methyl paraben                | LOW             |
| Nonylphenol, ethoxylated      | LOW             |
| Hydrogen peroxide             | LOW             |

### 12.4. Mobility in soil

| Ingredient       | Mobility        |
|------------------|-----------------|
| Glycerin         | HIGH(ESTIMATED) |
| Ethylene glycol  | HIGH(ESTIMATED) |
| C.I. Acid Blue 9 | LOW(ESTIMATED)  |
| Methyl paraben   | MED(ESTIMATED)  |



Hydrogen peroxide HIGH(ESTIMATED)

## 12.5. Results of PBT and vPvB assessment

|                                  | P                 | B                 | T                 |
|----------------------------------|-------------------|-------------------|-------------------|
| Relevant available data          | No data available | No data available | No data available |
| PBT and vPvB Criteria fulfilled? | No data available | No data available | No data available |

## 12.6. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Product / Packaging disposal:** Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.  
A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

- **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.

**Waste treatment options:** No data available

**Sewage disposal options:** No relevant data

**Other disposal recommendations:** No data available

## SECTION 14: Transport information

**Labels Required:** No data available

### Land transport (ADR / RID / GGVSE)

No data available

|                                  |                   |                                    |                   |
|----------------------------------|-------------------|------------------------------------|-------------------|
| No data available                |                   |                                    |                   |
| 14.1. UN number                  | No data available | 14.4. Packing group                | No data available |
| 14.2. UN proper shipping name    | No data available | 14.5. Environmental hazard         | No relevant data  |
| 14.3. Transport hazard class(es) |                   | 14.6. Special precautions for user |                   |
|                                  | No data available |                                    |                   |
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No data available

### Air transport (ICAO-IATA / DGR)

No data available

|                                  |                    |                   |                                    |   |                   |
|----------------------------------|--------------------|-------------------|------------------------------------|---|-------------------|
| 14.1. UN number                  | No data available  |                   | 14.4. Packing group                | No data available   |                   |
| 14.2. UN proper shipping name    | No data available  |                   | 14.5. Environmental hazard         | No relevant data  |                   |
| 14.3. Transport hazard class(es) |                    |                   | 14.6. Special precautions for user | Special provisions  | No data available |
|                                  |                    |                   |                                    | Cargo Only Packing Instructions                           | No data available |
|                                  |                    |                   |                                    | Cargo Only Maximum Qty / Pack                             | No data available |
|                                  | ICAO/IATA Class:   | No data available |                                    | Passenger and Cargo Packing Instructions                  | No data available |
|                                  | ICAO/IATA Subrisk: | No data available |                                    | Passenger and Cargo Maximum Qty / Pack                    | No data available |
|                                  | ERG Code           | No data available |                                    | Passenger and Cargo Limited Quantity Packing Instructions | No data available |
|                                  |                    |                   |                                    |   |                   |

|  |   |                   |
|--|---|-------------------|
|  | Passenger and Cargo<br>Maximum Qty / Pack | No data available |
|--|---|-------------------|

No data available

#### Sea transport (IMDG-Code / GGVSee)

No data available

|   |                   |   |   |
|---|-------------------|---|---|
| <b>14.1. UN number</b>                  | No data available | <b>14.4. Packing group</b>                | No data available   |
| <b>14.2. UN proper shipping name</b>    | No data available | <b>14.5. Environmental hazard</b>         | No relevant data  |
| <b>14.3. Transport hazard class(es)</b> | No data available | <b>14.6. Special precautions for user</b> | EMS Number<br>Special provisions<br>Limited Quantities      |
|   | IMDG Subrisk      |   | No data available<br>No data available<br>No data available |

No data available

#### Inland waterways transport (ADNR / River Rhine)

No data available

|   |                   |   |  |
|---|-------------------|---|--|
| <b>14.1. UN number</b>                  | No data available | <b>14.4. Packing group</b>                | No data available  |
| <b>14.2. UN proper shipping name</b>    | No data available | <b>14.5. Environmental hazard</b>         | No relevant data   |
| <b>14.3. Transport hazard class(es)</b> | No data available | <b>14.6. Special precautions for user</b> | Classification code<br>Limited quantity<br>Equipment required<br>Fire cones number |
|   | ADNR Label        |   | No data available<br>No data available<br>No data available<br>No data available   |

#### 14.7. Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

No data available

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

#### Regulations for ingredients

##### Water (CAS: 7732-18-5) is found on the following regulatory lists;

"EU REACH Regulation (EC) No 1907/2006 - Annex IV - Exemptions from the Obligation to Register in Accordance with Article 2(7)(a) (English)", "Europe Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food - Annex I: Substances", "Europe Substances Listed in EU Directives on Plastics in Contact with Food", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Chemwatch Harmonised classification", "European Customs Inventory of Chemical Substances (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution - Norway", "Sigma-AldrichTransport Information"

##### Glycerin (CAS: 56-81-5) is found on the following regulatory lists;

"CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "Europe Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food - Annex I: Substances", "Europe ECHA Registered Substances - Classification and Labelling - DSD-DFD", "Europe ECHA Registered Substances - Classification and Labelling - GHS", "Europe European Chemicals Agency (ECHA) List of Registered Substances", "Europe European Chemicals Agency (ECHA) List of substances identified for registration in 2010", "Europe SCOPFP First Update of the Inventory of Ingredients Employed in Cosmetic Products - Section II: Perfume and Aromatic Raw Materials", "Europe Substances Listed in EU Directives on Plastics in Contact with Food", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Chemwatch Harmonised classification", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Notified classification and labelling according to CLP criteria", "European Customs Inventory of Chemical Substances (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Directive 2008/1/EC concerning integrated pollution prevention and control, Annex III", "European Union (EU) Inventory of Fragrance Ingredients (Perfume and Aromatic Raw Materials)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "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", "International Numbering System for Food Additives", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information", "UK The Environmental Protection (Prescribed Processes and Substances) Regulations 1991 - Release into Air Prescribed Substances", "UK The Environmental Protection (Prescribed Processes and Substances) Regulations 1991 - Release into Land Prescribed Substances", "UK Workplace Exposure Limits (WELs)"

##### Ethylene glycol (CAS: 107-21-1) is found on the following regulatory lists;

"Chemwatch Candidate List of Very High Concern - List of Substance Subject to Authorization", "EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)", "Europe Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food - Annex I: Substances", "Europe ECHA Registered Substances - Classification and Labelling - DSD-DFD", "Europe ECHA Registered Substances - Classification and Labelling - GHS", "Europe European Chemicals Agency (ECHA) List of Registered Substances", "Europe European Chemicals Agency (ECHA) List of substances identified for registration in 2010", "Europe Substances Listed in EU Directives on Plastics in Contact with Food", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Chemwatch Harmonised classification", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Notified classification and labelling according to CLP criteria", "European Customs Inventory of Chemical Substances (English)", "European Trade Union Confederation (ETUC) Priority List for REACH Authorisation", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31", "European Union (EU) Directive 2008/1/EC concerning integrated pollution prevention and control, Annex III", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (English)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "International Numbering System for Food Additives", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution - Norway", "Sigma-AldrichTransport Information", "UK The Environmental Protection (Prescribed Processes and Substances) Regulations 1991 - Release into Land Prescribed Substances", "UK Workplace Exposure Limits (WELs)"

##### C.I. Acid Blue 9 (CAS: 2650-18-2, 1334-07-2, 29519-65-1, 37307-55-4, 37307-56-5, 37307-78-1, 511534-54-6, 51609-24-6, 55819-29-9, 86924-52-9, 99149-43-6, 12262-19-0) is found on the following regulatory lists;

"EU Cosmetic Directive 76/768/EEC Annex III Part 1: List of Substances which Cosmetic Products must not contain except subject to the restrictions and conditions laid down (English)", "EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products (English)", "EU List of hair dye substances with an updated safety file", "EU List of positively assessed hair dye substances by the Scientific Committee on Consumer Products (SCCP)", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Chemwatch Harmonised classification", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "Sigma-AldrichTransport Information", "UK The Environmental Protection (Prescribed Processes and Substances) Regulations 1991 - Release into Air Prescribed Substances"

##### C.I. Acid Red 52, sodium salt (CAS: 3520-42-1, 12777-86-5, 39470-83-2, 61261-16-3, 74871-35-5, 103947-10-0, 104298-69-3, 184827-20-1, 192230-72-1, 204996-41-8, 288323-20-6, 475472-70-9, 2609-88-3) is found on the following regulatory lists;

"EU Cosmetic Directive 76/768/EEC Annex III Part 1: List of Substances which Cosmetic Products must not contain except subject to the restrictions and conditions laid down (English)", "EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products (Danish)", "EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products (English)", "EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products (German)", "EU List of hair dye substances with an updated safety file", "EU List of positively assessed hair dye substances by the Scientific Committee on Consumer Products (SCCP)", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Chemwatch Harmonised classification", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Notified classification and labelling according to CLP criteria", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Directive 2008/1/EC concerning integrated pollution prevention and control, Annex III", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "FisherTransport Information", "GESAMP/BHS Composite List - GESAMP Hazard Profiles", "IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO", "IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards", "International Fragrance Association (IFRA) Survey: Transparency List", "Sigma-AldrichTransport Information", "UK The Environmental Protection (Prescribed Processes and Substances) Regulations 1991 - Release into Air Prescribed Substances"

**Methyl paraben (CAS: 99-76-3) is found on the following regulatory lists;**

"EU Cosmetic Directive 76/768/EEC Annex VI Part 1 List of Preservatives Allowed (English)", "EU Cosmetic Directive 76/768/EEC Annex VI Part 1 List of Preservatives Allowed (German)", "EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances", "Europe Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food - Annex I: Substances", "Europe ECHA Registered Substances - Classification and Labelling - DSD-DPD", "Europe ECHA Registered Substances - Classification and Labelling - GHS", "Europe European Chemicals Agency (ECHA) List of Registered Phase-in Substances", "Europe European Chemicals Agency (ECHA) List of Registered Substances", "Europe European Chemicals Agency (ECHA) List of substances identified for registration in 2010", "Europe Substances Listed in EU Directives on Plastics in Contact with Food", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Chemwatch Harmonised classification", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Notified classification and labelling according to CLP criteria", "European Customs Inventory of Chemical Substances (English)", "European Trade Union Confederation (ETUC) Priority List for REACH Authorisation", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "FEMA Generally Recognized as Safe (GRAS) Flavoring Substances 23 - Examples of FEMA GRAS Substances with Non-Flavor Functions", "FisherTransport Information", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "International Numbering System for Food Additives", "Sigma-AldrichTransport Information", "UK The Environmental Protection (Prescribed Processes and Substances) Regulations 1991 - Release into Air Prescribed Substances"

**Nonylphenol, ethoxylated (CAS: 9016-45-9) is found on the following regulatory lists;**

"European Chemical Agency (ECHA) Classification & Labelling Inventory - Chemwatch Harmonised classification", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Notified classification and labelling according to CLP criteria", "European Customs Inventory of Chemical Substances (English)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "European Union (EU) No-Longer Polymers List (NLP) (67/548/EEC)", "FisherTransport Information", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR List of Substances of Possible Concern", "Sigma-AldrichTransport Information"

**Hydrogen peroxide (CAS: 7722-84-1) is found on the following regulatory lists;**

"Europe ECHA Registered Substances - Classification and Labelling - DSD-DPD", "Europe ECHA Registered Substances - Classification and Labelling - GHS", "Europe European Chemicals Agency (ECHA) List of Registered Phase-in Substances", "Europe European Chemicals Agency (ECHA) List of Registered Substances", "Europe European Chemicals Agency (ECHA) List of substances identified for registration in 2010", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Chemwatch Harmonised classification", "European Chemical Agency (ECHA) Classification & Labelling Inventory - Notified classification and labelling according to CLP criteria", "European Customs Inventory of Chemical Substances (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP 31", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI", "FisherTransport Information", "GESAMP/BHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Air Transport Association (IATA) Dangerous Goods Regulations", "OECD List of High Production Volume (HPV) Chemicals", "UK The Environmental Protection (Prescribed Processes and Substances) Regulations 1991 - Release into Land Prescribed Substances", "UK Workplace Exposure Limits (WELs)"

**No data for Ink for water color pen-Navy Blue (CW: 9-45025)**

This safety data sheet is in compliance with the following EU legislation and its adaptations – as far as applicable - : 67/548/EEC, 1999/45/EC, 98/24/EC, 92/85/EEC, 94/33/EC, 91/689/EEC, 1999/13/EC, Regulation (EU) No 453/2010, Regulation (EC) No 1907/2006, Regulation (EC) No 1272/2008, and their amendments as well as the following British legislation:

- The Control of Substances Hazardous to Health Regulations (COSHH) 2002

- COSHH Essentials

- The Management of Health and Safety at Work Regulations 1999

## 15.2. Chemical safety assessment

### ANNEX 1

|                   |              |
|-------------------|--------------|
| ethylene glycol   | 603-027-00-1 |
| Hydrogen peroxide | 008-003-00-9 |

### Annex VI

According to CLP no hazard category has been assigned

### RISK

None under normal operating conditions.

## SECTION 16: Other information

### ANNEX 2: Indications of Danger

|    |                               |
|----|-------------------------------|
| C  | Corrosive                     |
| N  | Dangerous for the environment |
| O  | Oxidizing                     |
| Xi | Irritant                      |
| Xn | Harmful                       |

### INGREDIENTS WITH MULTIPLE CAS NUMBERS

| Ingredient Name               | CAS   |
|-------------------------------|---|
| C.I. Acid Blue 9              | 2650-18-2, 1334-07-2, 29519-65-1, 37307-55-4, 37307-56-5, 37307-78-1, 511534-54-6, 51609-24-6, 55819-29-9, 86924-52-9, 99149-43-6, 12262-19-0                   |
| C.I. Acid Red 52, sodium salt | 3520-42-1, 12777-86-5, 39470-83-2, 61261-16-3, 74871-35-5, 103947-10-0, 104298-69-3, 184827-20-1, 192230-72-1, 204996-41-8, 288323-20-6, 475472-70-9, 2609-88-3 |

### EXPOSURE STANDARD FOR MIXTURES

! "Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration: ! Composite Exposure Standard for Mixture (TWA) :100 mg/m<sup>3</sup>.

### OTHER

• 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](http://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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.
- For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:
  - EN 16 Personal eye-protection
  - EN 340 Protective clothing
  - EN 374 Protective gloves against chemicals and micro-organisms
  - EN 13832 Footwear protecting against chemicals
  - EN 133 Respiratory protective devices