1. Identification

Product number       TPWA-GN 010

Ink - GREEN

Details of the supplier of the safety data sheet

Company name:        PANNIER CORPORATION

Address:             207 Sandusky Street
                      Pittsburgh, PA 15212-5823 USA

Telephone:           412-323-4900

e-mail:              sales@pannier.com

Internet:            www.pannier.com

Emergency phone number: INFOTRAC: 24-hour telephone number: 1-800-535-5053

Further Information

Toxicological information center (Mainz / Germany)

You should contact a doctor or a toxicological information centre if you suspect poisoning. The toxicological
information centre provides free medical advice in the event of poisoning or a suspicion of poisoning to everyone
around the clock.

Important questions for EMERGENCY:

- Who: - age, weight, sex of the person concerned, telephone number.: for recall.
- What: - All you can say about the involved agents.
- How much: - Try to estimate the maximum possible intake.
- When: - Try to get the time elapsed since the incident time estimate.
- What else: - First observed symptoms? First Measures taken?
2. Hazard(s) identification

Classification of the chemical

Hazard categories:
- Flammable liquid: Flam. Liq. 4
- Skin corrosion/irritation: Skin Irrit. 2
- Serious eye damage/eye irritation: Eye Irrit. 2A
- Respiratory/skin sensitization: Skin Sens. 1

Hazard Statements:
- Combustible liquid
- Causes skin irritation
- May cause an allergic skin reaction
- Causes serious eye irritation

Label elements

Signal word: Warning
Pictograms: exclamation mark

Hazard statements

Combustible liquid
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation

Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

Hazards not otherwise classified

In principle all chemicals are particularly dangerous. Therefore they are to be handled only by specially trained personnel with the necessary care. The disposal of this product requires the expertise resp. an annual instruction according to ChemVerbotsV.

3. Composition/information on ingredients

Mixtures

Chemical characterization

Mixture of water, coloring agents, binders and additives.

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1336-21-6</td>
<td>Ammonium hydroxide solution 25%</td>
<td>1 - 5 %</td>
</tr>
<tr>
<td>25254-50-6</td>
<td>Alpha,alpha,alpha-Trimethyl-1,3,5-triazin-1,3,5(2H,4H,6H)-triethanol</td>
<td>0.16 %</td>
</tr>
</tbody>
</table>
4. First-aid measures

Description of first aid measures

General information
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove contaminated, saturated clothing immediately. If victim is at risk of losing consciousness, position and transport on their side.

After inhalation
Remove casually to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Seek medical attention if problems persist.

After contact with skin
After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Repeated exposure may cause skin dryness or cracking. Use protective skin cream before handling the product. In case of skin irritation, consult a physician.

After contact with eyes
If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion
Keep at rest. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Aspiration hazard. Do not give fatty oils and milk. Do not allow a neutralisation agent to be drunk. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

SECTION 2: Hazards identification & SECTION 11: Toxicological information

Indication of any immediate medical attention and special treatment needed
There are no data available on the mixture itself.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings. In case of fire, use sand, extinguishing powder or alcohol resistant foam. Water fog. Atomized water.

Unsuitable extinguishing media
High power water jet.

Specific hazards arising from the chemical
Carbon monoxide. CO Carbon dioxide (CO2).

Special protective equipment and precautions for fire-fighters
Wear a self-contained breathing apparatus and chemical resistant suit.

Additional information
Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Provide fresh air. Avoid contact with skin and eyes. Wear suitable protective clothing and eye/face protection.

**Environmental precautions**

Do not allow to enter into surface water or drains.

**Methods and material for containment and cleaning up**

Provide adequate ventilation. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clean contaminated objects and areas thoroughly observing environmental regulations. Collect in closed and suitable containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

**Reference to other sections**

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

7. **Handling and storage**

**Precautions for safe handling**

**Advice on safe handling**

Provide adequate ventilation as well as local exhaustion at critical locations. See information supplied by the manufacturer. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Open and handle container with care. Keep container tightly closed.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep only in the original container in a cool, well-ventilated place. Store small packages in a suitable, robust cabinet. Keep container tightly closed. Recommended storage temperature: (+15 °C) - (+25 °C)

**Advice on storage compatibility**


**Further information on storage conditions**

Protect against direct sunlight. The product is chemically stable under recommended conditions of storage, use and temperature. In case of exceeding the storage time: Product/Packaging disposal. Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.
8. Exposure controls/personal protection

Control parameters

Additional advice on limit values
Technical measures and the application of suitable work processes have priority over personal protection equipment.

Exposure controls
Protective and hygiene measures

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin and eyes. Protect skin by using skin protective cream. Draw up and observe skin protection programme. Wash hands before breaks and after work. When using do not eat, drink or smoke.

Eye/face protection

Tightly sealed safety glasses. DIN EN 166

Hand protection

Wear protective gloves. Recommended material: Butyl caoutchouc (butyl rubber) Thickness of the glove material >= 0,5 mm. DIN EN 374. NR (natural rubber, natural latex) limited resistance using a maximum of 10 minutes. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

9. Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>green</td>
<td></td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>like: Solvent</td>
<td></td>
</tr>
<tr>
<td><strong>pH-Value (at 20 °C)</strong></td>
<td>not determined</td>
<td>DIN 19268</td>
</tr>
<tr>
<td><strong>Changes in the physical state</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>100 - 110 °C</td>
<td>DIN 51751</td>
</tr>
<tr>
<td>Flash point</td>
<td>89 °C</td>
<td>DIN 51755</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>not Explosive.</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limits:</td>
<td></td>
<td>DIN 51649</td>
</tr>
<tr>
<td>Upper explosion limits:</td>
<td></td>
<td>DIN 51649</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td></td>
<td>DIN 51794</td>
</tr>
<tr>
<td>Vapor pressure: (at 20 °C)</td>
<td>23 hPa</td>
<td>DIN 51754</td>
</tr>
<tr>
<td>Density (at 20 °C):</td>
<td>1,038 - 1,043 g/cm³</td>
<td>ISO 2811</td>
</tr>
<tr>
<td><strong>Solubility in other solvents</strong></td>
<td>mixable with most organic solvent cleaners</td>
<td>DIN 53019</td>
</tr>
<tr>
<td>Viscosity / dynamic: (at 20 °C)</td>
<td>2,5 - 2,8 mPa·s</td>
<td></td>
</tr>
<tr>
<td>Vapour density:</td>
<td>&gt; 1</td>
<td></td>
</tr>
</tbody>
</table>
10. Stability and reactivity

Chemical stability
Stability: Stable
The mixture is chemically stable under recommended conditions of storage, use and temperature.

Possibility of hazardous reactions
Vapours of flammable solvents can accumulate in the gas phase of closed container, especially during heat treatment. Therefore keep away from fire and sources of ignition.

Conditions to avoid
Protect from sunlight. Store at temperatures not exceeding 35°C/95°F.

Incompatible materials
Keep away from strong acids, leachates, heavy metal salts and reducing materials.

Hazardous decomposition products
Carbon monoxide,(CO), Carbon dioxide (CO2). Peroxide

11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Exposure routes</th>
<th>Method</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1336-21-6</td>
<td>Ammonium hydroxide solution 25%</td>
<td>oral</td>
<td>LD50</td>
<td>350 mg/kg</td>
<td>Ratte</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h) vapour</td>
<td>LC50</td>
<td>1,4 mg/l</td>
<td>Ratte</td>
<td></td>
</tr>
<tr>
<td>25254-50-6</td>
<td>Alpha,alpha,alpha-Trimethyl-1,3,5-triazin-1,3,5(2H,4H,6H)-triethanol</td>
<td>oral</td>
<td>ATE</td>
<td>500 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative vapour</td>
<td>ATE</td>
<td>11 mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative aerosol</td>
<td>ATE</td>
<td>1,5 mg/l</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity (NTP): none
Carcinogenicity (IARC): none
Carcinogenicity (OSHA): none

Further information
Prolonged/repetitive skin contact may cause skin defattening or dermatitis. Danger of cutaneous absorption. Inhalation causes narcotic effects/intoxication. Causes eye irritation. May cause damage to liver through prolonged or repeated exposure if inhaled. Ingestion causes nausea, weakness and central nervous system effects. Observe risk of aspiration if vomiting occurs.

12. Ecological information

Persistence and degradability
Product is partially biodegradable. Significant residues remain.

Bioaccumulative potential
No data available
Mobility in soil
No data available

Other adverse effects
No data available

Further information
The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see chapter 3).

13. Disposal considerations

Waste treatment methods

Advice on disposal
Dispose of waste according to applicable legislation. Do not empty into drains; dispose of this material and its container in a safe way. Consult the appropriate local waste disposal expert about waste disposal. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

14. Transport information

US DOT 49 CFR 172.101

Proper shipping name: Not a hazardous material with respect to these transport regulations. & & Not controlled under DOT

Marine transport (IMDG)

Other applicable information
No dangerous good in sense of this transport regulation.

Air transport (ICAO)

Other applicable information
No dangerous good in sense of this transport regulation.

15. Regulatory information

U.S. Regulations

National regulatory information
SARA Section 304 CERCLA:
  Ammonium hydroxide (1336-21-6): Reportable quantity = 1,000 (454) lbs. (kg)
SARA Section 311/312 Hazards:
  Ammonium hydroxide (1336-21-6): Immediate (acute) health hazard
  Alpha,alpha,alpha-Trimethyl-1,3,5-triazin-1,3,5(2H,4H,6H)-triethanol (25254-50-6): Immediate (acute) health hazard
Safety Data Sheet

according to 29 CFR 1910.1200(g)  

SARA Section 313 Toxic release inventory:
   Ammonium hydroxide (1336-21-6): De minimis limit = 1.0 %, Reportable threshold = Standard

SARA
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

State Regulations
Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)
This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Additional information
For use in industrial installations or professional treatment only.

16. Other information

Hazardous Materials Information Label (HMIS)
Health: 1
Flammability: 1
Physical Hazard: 0
Personal Protection: B

NFPA Hazard Ratings
Health: 1
Flammability: 1
Reactivity: 0

Unique Hazard: not applicable

Revision date: 30.04.2015
Revision No: 9,00,0

Abbreviations and acronyms
Drop-on-Demand Printer Drop-on-Demand Printer

Other data
The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary responsible for adhering to existing laws and regulations. The product should only be handled by persons over the age of 18, who were informed sufficiently about the dangerous nature or the product and about the necessary safety precautions.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)