

**Material Safety Data Sheet**

Revision date: 12.16.2008

Revision 6.01

REA-JET TWA-SW 010 Ink Page 1 of 4

**1. Product and company Identification**

**REA-JET TWA-SW 010 Ink**

**1.1 Commercial product name**

**1.2 Product number** IJ050-9003-01

**1.3 Chemical Characterization** Preparation of polar organic solvents, water, binders and auxiliary materials

**1.4 Emergency telephone:**

**Chemtrec 24-hour telephone #-800-424-9300**  
**International 24-hour telephone #-703-527-3667**

**2. Hazards Identification**

**Routes of Entry**

None

**Signs and Symptoms of Exposure**

Carcinogenicity (NTP): None

Carcinogenicity (IARC): None

Carcinogenicity (OSHA): None

**2.2 Special hazards for human health and environment**

Water risk class 1 Mild water pollutant.

**3. Composition/Information on Ingredients**

**3.2 Hazardous components**

**Components**

2,2'-oxybisethanol, diethylene glycol

**CAS No.**

111-46-6

**Quantity**

1-5%

**4. First Aid Measures**

**General Information:** In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible). Take off immediately all contaminated clothing if victim is at risk of losing consciousness, position and transport on their side. The decision about the measures, which have to be initiated, has to be taken by the doctor.

**4.1 After inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest. Consult physician

**4.2 After contact with skin:** After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.

**4.3 After contact with eyes:** Take off lenses. Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult physician.

**4.4 After ingestion:** Calm the victim. Rinse mouth thoroughly with water. Immediately get medical attention. Let water be swallowed in little sips (dilution effect). Do not induce vomiting. Milk or fat oils and are strongly contraindicated. Do not allow a neutralization agent to be drunk.

**5. Fire Fighting Measures**

**5.1 Suitable extinguishing media:** alcohol resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. Water spray. Atomized water.

**5.2 Unsuitable extinguishing media:** High power water jet

**5.3 Special hazards arising from the chemical:** In case of fire may form: Carbon monoxide. Nitrogen oxides (NO<sub>x</sub>). Vapors may form explosive mixtures with air.

**5.4 Protective equipment and precautions for firefighters:** Wear a self-contained breathing apparatus and chemical resistant suit.

**5.5 Additional information:** Temperature class T 1 (Ignition temperature: >450 °C)

**6. Accidental Release Measures**

**6.1 Personal precautions:** Provide fresh air. Avoid contact with skin and eyes. Wear suitable gloves. NR (Natural rubber (Caoutchouc), Natural latex). NBR (Nitrile rubber) limited resistance, Butyl rubber. In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves. Wear eye/face protection. If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn. The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. See protective measures under point 7 and 8.

**6.2 Environmental precautions:** Do not empty into drains or the aquatic environment.

**6.3 Methods for cleaning up/taking up:** Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clean contaminated objects and areas thoroughly observing environmental regulations. Treat the assimilated material according to the section on waste disposal. (13)

**Material Safety Data Sheet**

Revision date: 12.16.2008

Revision 6.01

REA-JET TWA-SW 010 Ink Page 2 of 4

**7. Handling and Storage**

- 7.1 Advice on safe handling:** When handling with chemicals, please consider usual precautionary measures. Wear suitable protective clothing, gloves and eye/face protection. See protective measures under point 7 and 8. Do not leave the container open. Handle open container with care. Keep container tightly closed. If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn. When using do not eat, drink or smoke. Protect skin by using skin protective cream. "Wash hands when done working with material; at breaks, lunch, shift changes, etc." Keep away from food, drink and animal feeding stuffs. Never clean the skin or the clothes with the preparation!
- 7.2 Advice on protection against fire and explosion:** The vapors are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels and cellars. In use, may form flammable/explosive vapor-air mixture. Take precautionary measures against static discharges. Keep away from sources of ignition. No smoking.
- 7.3 Further information on handling:** Vapors / aerosols should be extracted by suction directly at point of origin. See information supplied by the manufacturer. For limiting the emission through volatile organic compounds (VOC), the solvent vapors should be forwarded to an emission control facility. Please note the manufacturer indications for storage conditions and shelf life (see section 7.3) When storing outside the recommended storing temperatures, the shelf life can be shortened. Inappropriate storage may conduct to endangerment of persons and environment.
- 7.4 Requirements for storage rooms and vessels:** Keep only in the original container in a cool, well ventilated place. Keep container tightly closed. Rooms, in which inks are stocked, have to be equipped with sufficient air ventilation. Remove all sources of ignition. Protect against high warming or solar radiation. Recommended storage temperature: +15 °C - 25 °C.. Maximum period of storage (time): 12 months

**8. Exposure Controls/Personal Protection:** None

**8.1 Exposure limit values:** None

**Exposure controls:** None

**Occupational exposure controls:** Technical measures and the application of appropriate methods of operation, as indicated in section 7, have precedence over to the application of personal protection equipment.

**8.2 Protective and hygiene measures:** Protect skin by using skin protective cream. "Wash hands when done working with material; at breaks, lunch, shift changes, etc."

**8.3 Respiratory protection:** If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn.

**8.4 Hand protection:** Type of chemical protective gloves to choose depends on the concentration and quantity of dangerous substances as well as on work place specifications. In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

**8.5 Eye protection:** Tightly sealed safety glasses.

**8.6 Skin protection:** Carry long-sleeved, flame impeding and anti-static labor safety clothing

**8.7 Environmental exposure controls:** Please see chapter 6 and 7

**8.8 Additional advice on control parameters:** None

**9. Physical and Chemical Properties**

**9.1 Appearance**

Form: liquid  
Color: black  
Odor: like glycol

**9.2 Important health, safety and environmental information**

pH-Value (at 20 °C):	not determined	DIN 19268
Melting point:	not determined	DIN 53181
Boiling point:	79 – 110°C	DIN 51751
Flash point:	>55°C	DIN51765
Explosive properties	Not Explosive	
Lower explosion limits:	Not determined	DIN51649
Upper explosion limits:	Not determined	DIN51649
Oxidizing properties	Not determined	
Vapor pressure (at 20°C)	Not determined	DIN51754
Density (at 20°C)	1.02 g/cm <sup>3</sup>	DIN53217
Water solubility (at 20oC)	250 g/L	
Partition coefficient	not determined	
Viscosity/dynamic (at 20oC)	2.8 mPas	DIN 53018
Viscosity/Kinematic (at 20oC)	not determined	
Vapor density: (at 20oc)	>1	
Evaporation rate (at 20oC)	not determined	
Solvent separation test	not determined	

**Material Safety Data Sheet**

Revision date: 12.16.2008

Revision 6.01

REA-JET TWA-SW 010 Ink Page 3 of 4

**9.3 Other information**

Ignition temperature: >450°C DIN51794  
VOC 23.875% (243.525 g/l)  
Maximum period of storage (time): 12 months

**10 Stability and Reactivity**

**10.1 Stability:** Stable

**10.2 Conditions to avoid:** High warming > 45°C and / or solar radiation. Heating up forwards the transit of liquid to the vapour phase and the accumulation of potentially explosive atmosphere.

**10.3 Materials to avoid:** Keep away from strong acids, leachates, heavy metal salts and reducing materials

**10.4 Hazardous decomposition products:** Keep away from strong acids, leachates, heavy metal salts and reducing materials.

**10.5 Possibility of Hazardous Reactions:** None

**10.6 Additional information:** This product is stable

**11. Toxicological Information**

**Acute toxicity** For this product there are currently no toxicological data available

**Specific effects in experiment on an animal:** For this product there are currently no toxicological data available.

**Corrosive and irritant effects** For this product there are currently no toxicological data available.

**Sensitising effects** For this product there are currently no toxicological data available.

**Severe effects after repeated or prolonged exposure** For this product there are currently no toxicological data available.

**Carcinogenic/mutagenic/toxic effects for reproduction** For this product there are currently no toxicological data available.

**Additional information on tests** For this product there are currently no toxicological data available.

**Empirical data on effects on humans** For this product there are currently no toxicological data available

**Further information** Prolonged/repetitive skin contact may cause skin defatting or dermatitis. Highly fat solubilising effect.

Danger of cutaneous absorption. Inhalation may cause headache, drowsiness, somnolence and perception disorder. Eye contact may cause heavy irritation and oedema formation of the conjunctiva. May cause damage on liver, kidneys and nervous system. Aspiration after swallowing and vomiting may conduct to heavy lung damages.

**12 Ecological Information**

**12.1 Ecotoxicity** For this product there are currently no ecotoxicological data available.

**12.2 Mobility:** In ground: a moderate to high mobility of the solvents used in the preparation can be expected.

**12.3 Persistence and degradability:** Not determined

**12.4 Bioaccumulative potential:** No indication of bio-accumulation potential

**12.5 Other adverse effects:** Water risk class: 1 Mild water pollutant

**12.6 Further information:** Eco-toxicological data have not been identified especially for this preparation. The indicated information is based on the current state of knowledge of the used materials and of similar products. It should not reach the canalization, the ground or the waters. With an appropriate handling and application any ecological problems are not to be expected. RoHS – conformity. The preparation is in conformity with the 2002/95/EG RoHS and WEEE - guidelines

**13 Disposal Considerations:**

**13.2 Contaminated packaging:** Waste disposal according to official state regulations.

**14 Transport Information**

**DOT Classification:** UN number 0000

Description of the goods Not a hazardous material with respect to transportation regulations

**Land transport (ADR/RID)**

UN number 0000  
Description of the goods Not a hazardous material with respect to transportation regulations.

**Inland waterways transport**

UN number 0000  
Description of the goods Not a hazardous material with respect to transportation regulations

**Marine transport**

UN number 0000

**PANNIER CORPORATION**  
207 Sandusky Street, Pittsburgh, PA 15212-5823 U.S.A.  
412.323.4900  
www.pannier.com

**Material Safety Data Sheet**

Revision date: 12.16.2008

Revision 6.01

**REA-JET TWA-SW 010 Ink** Page 4 of 4

Description of the goods	Not a hazardous material with respect to transportation regulations
<b><u>Air transport</u></b>	
UN number	0000
Description of the goods	Not a hazardous material with respect to transportation regulations

**15 Regulatory Information**

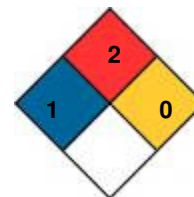
**U.S. Regulations:** None

**Additional information** DO NOT USE THIS PRODUCT FOR CLEANING SKIN AND CLOTHES!

**16 Other Information**

**Hazardous Materials Information Label (HMIS)**

Health:	1
Flammability:	2
Physical Hazard:	0
<b><u>NFPA Hazard Ratings</u></b>	
Health:	1
Flammability:	2
Reactivity	0
Unique Hazard:	Not Applicable



Only for industrial application - not for private use.

**Disclaimer of Liability**

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS ACCURACY OR CORRECTNESS. THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.