PANNIER CORPORATION 207 SANDUSKY STREET, PITTSBURGH, PA 15212-5823 U.S.A. 412 323 4900



www.pannier.com MATERIAL SAFETY DATA SHEET

TPKD-SW Ver. 1.01

July 9, 2009 Page 1 OF 4

IMPORTANT: Read this MSDS before handling and disposing of this product, and pass this information on to employees, customers and all users of this product.

24-HOUR EMERGENCY TELEPHONE NUMBER: Infotrac 1-800-535-5053

SECTION I - PRODUCT INFORMATION

PRODUCT NAME: TPKD-SW Black Pigmented MEK Based Ink

CAS NO.: NOT APPLICABLE (MIXTURE)

HAZARD RATING: Health: 3 Fire: 3 Reactivity: 0 PPI:B

Product Class: Ink Product Code: 9218

SECTION II – INGREDIENT AND HAZARD INFORMATION

Ingredient Name	CAS Number	Percent	TSCA
*METHYL ETHYL KETONE HMIS Health: 2 Fire: 3	78-93-3	50-80	Υ
CYCLOHEXANONE	108-94-1	3-8	Υ
HMIS Health: 2 Fire: 2 *ISOPROPANOL 99% ANHY	67-63-0	1-5	Υ
HMIS Health: 2 Fire: 3 *N-METHYL-2-PYRROLIDONE HMIS Health: 2 Fire: 1	872-50-4	0.5-1.5	Υ

ALL INGREDIENTS IN THIS MIXTURE ARE LISTED ON THE TSCA INVENTORY.

SECTION 313 SUPPLIER NOTIFICATION: This product may contain toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40 CFR 372 (noted by the * symbol).

CAUTION: This product may become a dust nuisance when removed by sanding, abrading or sandblasting. Dust masks should be worn during these operations.

NE = not established NR = not regulated NA = not available

SECTION III - PHYSICAL DATA

Form: Liquid Appearance/Color: Black

PH Value: Not applicable

Boiling Range: $172 \,^{\circ}\text{F} - 398 \,^{\circ}\text{F} \, (77.78 \,^{\circ}\text{C} - 203.33 \,^{\circ}\text{C})$

Vapor Pressure (mmHg): 0 @ 0°F (-17.78°C) Melting Point: Not Applicable

Evaporation Rate: NA
Vapor Density: NA
Partition Coefficient NA
% Volatile Weight: 89.22%
% Volatile Volume: 92.85%

PANNIER CORPORATION 207 SANDUSKY STREET, PITTSBURGH, PA 15212-5823 U.S.A. 412 323 4900

www.pannier.com MATERIAL SAFETY DATA SHEET

TPKD-SW Ver. 1.01 July 9, 2009 Page 2 OF 4

Specific Gravity: 0.85183 VOC: 6.34 Molecular Weight: N/A Heavy Elements (ppm): 0.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: IB

Flash Range: 24° F (-4.44°C)

Explosive Range: 0% EXTINGUISHING MEDIA:

Carbon Dioxide ---- Dry Chemical ---- Foam ---- Water Fog

Use water for cooling material stored in vicinity of fire.

SPECIAL FIREFIGHTING PROCEDURES:

Vapors are heavier than air and may travel along the ground to an ignition source some distance from material handling point. Ignition sources include pilot lights, smoking, heaters, electric motors, sparks from electrical switches and static discharges.

CAUTION: Never use cutting torch on empty containers! Residual solvent vapor in empty container may explode.

Application to hot surfaces requires special precautions.

During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical assistance.

SECTION V - HEALTH HAZARD DATA

Route Species Exposure and dose
*ISOPROPANOL 99% ANHY LD50 6.2 PPM
LD50 16.4 PPM

PERMISSIBLE EXPOSURE LEVEL:

Refer to Section II

EFFECTS OF OVEREXPOSURE:

EYES: Can cause redness, irritation, swelling and blurred vision.

SKIN: Prolonged or repeated contact can cause slight ion or dermatitis.

BREATHING: Excessive inhalation of vapors and/or spray mist can cause respiratory irritation, dizziness,

weakness, fatigue, nausea, headache, unconsciousness and even asphyxiation.

SWALLOWING: Can cause gastrointestinal irritation, nausea, vomiting and diarrhea; aspiration of material into the

lungs can cause chemical pneumonitis which can be fatal.

FIRST AID:

EYES: Flush with large amounts of water for 15 minutes. Lift eyelids occasionally, get prompt medical

attention.

SKIN: Wash thoroughly with soap and water, remove contaminated clothing promptly; wash clothing

before reuse. Consult physician if irritation persists.

SWALLOWING: Since this product may contain materials which can cause lung damage is aspirated into the lungs.

the decision to induce vomiting or not must be made by a physician after careful consideration of all

materials ingested.

INHALATION: Move affected person to fresh air. If breathing is difficult, administer oxygen. If breathing has

stopped, give artificial respiration. Keep person warm, quiet, and get medical attention. Consult a

physician.

PANNIER CORPORATION 207 SANDUSKY STREET, PITTSBURGH, PA 15212-5823 U.S.A. 412 323 4900 www.pannier.com

MATERIAL SAFETY DATA SHEET

TPKD-SW Ver. 1.01 July 9, 2009 Page 3 OF 4

SECTION VI – REACTIVITY DATA

STABILITY: This product is stable.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

INCOMPATIBILITY: Avoid contact with strong oxidizers (e.g. nitric acid)

CONDITIONS TO AVOID: Keep away from heat and open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: May form carbon monoxide and dioxide, various hydrocarbons, etc.

SECTION VII – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IIN CASE MATERIAL IS RELEASED OR SPILLED:

Small Spill: Absorb liquid with rags, floor absorbent, vermiculite or other absorbent materials and transfer to hood. Large Spill: Eliminate all ignition sources. Dike area of spill to prevent spreading. Ventilate area if indoors. Pump liquid into salvage tank. Remaining liquid may be taken up with sand, floor absorbent or other absorbent material and shoveled into containers. Prevent run-off to sewers and bodies of water. Notify proper authorities as required by local, state and federal regulations.

WASTE DISPOSAL METHOD: Dispose of in accordance with federal, state and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Occupational exposure limits

	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
*METHYL ETHYL KETONE	200 PPM	NE	NE	NE	NE
CYCLOHEXANONE	25 PPM	NE	NE	NE	NE
*ISOPROPANOL 99% ANHY	400 PPM	NE	NE	500 PPM	NE
*N-METHYL-2-PYRROLIDONE	100 PPM	NE	NE	NE	NE

RESPIRATORY PROTECTION: In outdoor or open areas with unrestricted ventilation approved chemical/mechanical filters designed to remove a combination of particulates and vapor.

VENTILATION: Provide sufficient ventilation in volume and pattern to keep air contaminant concentration below current applicable OSHA permissible exposure limit or ACGIH TLV limit, and volatiles below lower explosive limit. Heavy solvent vapors should be removed from the lower levels of area, and all ignition sources (non-explosion proof equipment) should be eliminated if flammable mixtures will be encountered. Remove decomposition products formed during welding or flame cutting of surfaces coated with this product. For baking finishes- vent vapors emitted on heating.

PROTECTIVE GLOVES: Wear resistant gloves such as: nitrile rubber.

EYE PROTECTION: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses (consult your safety equipment supplier).

OTHER PROTECTIVE EQUIPMENT: Normal protective clothing. Wash contaminated clothing before reuse.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUATIONS TO BE TAKEN IN HANDLING AND STORING:

Do not drop containers. Avoid heat, sparks and open flame. Store large quantities only in buildings designed to comply with OSHA 1910.106. Never use pressure to empty. Avoid breathing sanding dust. Do not handle until manufacturers safety precautions have been read and understood.

OTHER PRECAUTIONS: The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

PANNIER CORPORATION 207 SANDUSKY STREET, PITTSBURGH, PA 15212-5823 U.S.A. 412 323 4900 www.pannier.com MATERIAL SAFETY DATA SHEET

TPKD-SW Ver. 1.01 July 9, 2009 Page 4 OF 4

SECTION X – ADDITIONAL REGULATORY INFORMATION

SARA TITLE III SECTION 313: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372:

Ingredient Name	CAS Number	Percent
*METHYL ETHYL KETONE	78-93-3	78.18
*ISOPROPANOL 99% ANHY	67-63-0	3.39
*N-METHYL-2-PYRROLIDONE	872-50-4	1.05

DISCLAIMER OF LIABILITY

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES THAT 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.