

MATERIAL SAFETY DATA SHEET

TAEC-WS 020

Prepared in accordance with ISO 11014-1/ANSI standard Z400.1-2004

Date: 02/2013

Replaced version:

Date of impression: 04.02.2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product name

TAEC-WS 020

Product category

Ink Product

Manufacturer or supplier's details

PANNIER CORPORATION

412-323-4900

www.pannier.com

E-mail: sales@pannier.com

Emergency Telephone Number

Infotrac 24-hour telephone # 800-535-5053

2. HAZARDS IDENTIFICATIONS

This product is a preparation. Health hazard information is based on its components.

Appearance

Colored liquid

Flammable Properties

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.

Emergency Overview

Irritant. May cause drowsiness and dizziness.

Eyes

Moderately irritating to the eyes.

Skin

May cause skin irritation and/or dermatitis.

Inhalation

May cause irritation of respiratory tract. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Ingestion

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Acetone	67-64-1	30 - 60
Titanium dioxide	13463-67-7	10 - 30
Ethyl alcohol	64-17-5	5 - 10
Ethyl acetate	141-78-6	5 - 10

4. FIRST AID MEASURES

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately if irritation develops and persists.

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Skin Contact	Wash off immediately with soap and plenty of water. Use a mild soap if available. Rinse immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation develops, get medical attention.
Inhalation	If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.
Ingestion	If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Flammable Properties	EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.
Suitable Extinguishing Media	Foam. Carbon dioxide (CO ₂). Dry chemical. Water spray. Use extinguishing measures that is appropriate to local circumstances and the surrounding environment.
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Keep away from fire, sparks and heated surfaces. Cool containers / tanks with water spray. Fire or intense heat may cause violent rupture of packages.
Specific Hazards Arising from the Chemical	Thermal decomposition can lead to release of irritating gases and vapors. Burning produces obnoxious and toxic fumes. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Ventilate the area. Avoid breathing dust or vapor. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Methods for Cleaning Up	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Do not use sparking tools.
Environmental Precautions	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Remove and wash contaminated clothing before re-use. Discard contaminated shoes. When using, do not smoke. Do not take internally. Harmful or fatal if swallowed. Take notice of the directions of use on the label.
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Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep out of the reach of children. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Ontario TWAEV	Mexico OEL (TWA)
Acetone	TWA: 500 ppm STEL: 750 ppm	TWA: 750 ppm TWA: 1800 mg/m ³ STEL: 2400 mg/m ³ STEL: 1000 ppm TWA: 1000 ppm TWA: 2400 mg/m ³	2500 ppm (10% LEL)	TWA: 500 ppm STEL: 750 ppm	TWA/LMPE-PPT: 1000 ppm TWA/LMPE-PPT: 2400 mg/m ³ STEL/LMPE-CT: 1260 ppm STEL/LMPE-CT: 3000 mg/m ³
Titanium dioxide	TWA: 10 mg/m ³	TWA: 10 mg/m ³ (total dust) TWA: 15 mg/m ³ (total dust)	5000 mg/m ³	TWA: 10 mg/m ³ (total dust)	TWA/LMPE-PPT: 10 mg/m ³ (as Ti) STEL/LMPE-CT: 20 mg/m ³ (as Ti)
Ethyl alcohol	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³	3300 ppm (10% LEL)	STEL: 1000 ppm	TWA/LMPE-PPT: 1000 ppm TWA/LMPE-PPT: 1900 mg/m ³
Ethyl acetate	TWA: 400 ppm	TWA: 400 ppm TWA: 1400 mg/m ³	2000 ppm (10% LEL)	TWA: 400 ppm	TWA/LMPE-PPT: 400 ppm TWA/LMPE-PPT: 1400 mg/m ³

Engineering Measures

Use ventilation adequate to keep exposures below recommended exposure limits. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal Protective Equipment

Respiratory Protection

Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Respirator with a vapor filter.

Eye Protection

Ensure that eyewash stations and safety showers are close to the workstation location. Avoid contact with eyes. Safety glasses with side-shields, Goggles, Face-shield.

Skin Protection

Wear protective gloves/clothing. Solvent-resistant apron and boots.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking, or smoking. Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colored liquid	Physical State	Liquid
Odor	Characteristic	Odor Threshold	No information available
pH	No information available	Autoignition Temperature	No information available
Boiling point/Boiling Range	>149 °C / >300 °F	Melting Point/Range	No information available
Freezing Point/Range	No information available	Solubility	No information available
Evaporation Rate	No information available	Partition Coefficient (n-octanol/water)	No information available
Vapor Pressure	No information available	Vapor Density	Heavier than air
Flammability (solid, gas)	No information available	Flammability Limits in Air	
		Upper	No information available
		Lower	No information available
Flash Point	-20 °C/ -4 °F	Photochemically Reactive	No
Method	Closed cup		
Weight Per Gallon (lbs/gal)	7.93	Specific Gravity	0.95
VOC by weight % (less water)	72.47	VOC by volume % (less water)	85.39
VOC lbs/gal (less water)	5.75	VOC grams/liter (less water)	688.93
	VOC lbs/gal as defined by SCAQMD Rule 1171 = 3.96		VOC grams/liter as defined by SCAQMD Rule 1171 = 473.94

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Heat, flames and sparks.
Incompatible Products	Strong acids. Strong bases. Strong oxidizing agents. Reducing agents.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO ₂). Carbon monoxide.
Possibility of Hazardous Reactions	None, under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetone	5800 mg/kg (Rat)		
Titanium dioxide	>10000 mg/kg (Rat)		
Ethyl alcohol	7060 mg/kg (Rat)		124.7 mg/L (Rat) 4 h
Ethyl acetate	5620 mg/kg (Rat)	>18000 mg/kg (Rabbit) >20 mL/kg (Rabbit)	

Chronic Toxicity

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Component	ACGIH	IARC	NTP	OSHA
Titanium dioxide		Group 2B		X

IARC: (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA: (Occupational Safety & Health Administration)

X - Present

Sensitization

No information available

Mutagenic Effects

No information available

Reproductive Effects

No information available

Developmental hazard

No information available

Teratogenicity

No information available

Chronic Effects

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effect, such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system.

Target Organ Effects

Blood, Central nervous system, Eyes, Liver, Reproductive System, Respiratory system & Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

We have no quantitative data concerning the ecological effects of this product. Should not be released into the environment.

Component	Algae	Fish	Water Flea
Acetone		96h LC50 Oncorhynchus mykiss: 4.74 - 6.33 mL/L 96h LC50 Pimephales promelas: 6210 - 8120 mg/L [static] 96h LC50 Lepomis macrochirus: 8300 mg/L	48h EC50 Daphnia magna: 10294 - 17704 mg/L [static] 48h EC50 Daphnia magna: 12600 - 12700 mg/L
Ethyl alcohol		96h LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static] 96h LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through] 96h LC50 Pimephales promelas: >100 mg/L [static]	48h LC50 Daphnia magna: 9268 - 14221 mg/L 24h EC50 Daphnia magna: 10800 mg/L
Ethyl acetate	48h EC50 Desmodesmus subspicatus: 3300 mg/L	96h LC50 Pimephales promelas: 220 - 250 mg/L [flow-through] 96h LC50 Oncorhynchus mykiss: 352 - 500 mg/L [semi-static] 96h LC50 Oncorhynchus mykiss: 484 mg/L [flow-through]	48h EC50 Daphnia magna: 560 mg/L [static]

Persistence and Degradability

No information available

Bioaccumulation

No information available

Mobility in Environmental Media

No information available

Component	log Pow
Acetone	-0.24
Ethyl alcohol	-0.32
Ethyl acetate	0.6

13. DISPOSAL CONSIDERATIONS

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Waste Disposal Methods

Dispose of contents/container in accordance with local regulation.

Contaminated Packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

UN1210, Printing Ink, 3, II

ICAO/IATA

UN1210, Printing Ink, 3, II

IMDG/IMO

UN1210, Printing Ink, 3, II

15. REGULATORY INFORMATION

International Inventories

Listed on TSCA. For further information, please contact: Manufacturer, importer, supplier

U.S. Federal Regulations

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:
None known

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

U.S. State Regulations

Component	Massachusetts Right To Know	Minnesota Right To Know	New Jersey Right To Know	Pennsylvania Right To Know
Acetone	X	X	X	X
Titanium dioxide	X	X	X	X
Ethyl alcohol	X	X	X	X
Ethyl acetate	X	X	X	X

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer and / or WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm

Component	CAS-No	Weight %
Titanium dioxide	13463-67-7	10 - 30

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

Component	WHMIS Classifications of Components
Acetone	B2,D2B

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Titanium dioxide	D2A
Ethyl alcohol	B2,D2B
Ethyl acetate	B2

Component	NPRI - National Pollutant Release Inventory
Acetone	Part 4 Substance
Ethyl alcohol	Part 5 Substance Part 5, Individual Substance
Ethyl acetate	Part 4 Substance Part 5, Individual Substance

Regulation (EC) No. 1907/2006 (REACH), Article 57

This product does not contain substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57)

HMIS:	Health	Flammability	Reactivity	PPE
	2 *	3	0	X

16. OTHER INFORMATION

Revision Date Feb-04-2013

Revision Note New MSDS format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of MSDS