



MATERIAL SAFETY DATA SHEET

TAEC-GB 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 INFORMATION

Product name TAEC-GB 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 # 1-800-535-5053

2. HAZARDS IDENTIFICATION

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

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 acetate	141-78-6	5 - 10
n-Propyl alcohol	71-23-8	1 - 5
Ethyl alcohol	64-17-5	1 - 5

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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.
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 are 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.

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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. Take notice of the directions of use on the label. Do not take internally. Harmful or fatal if swallowed.

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 TWA EV	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 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
n-Propyl alcohol	TWA: 100 ppm	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 625 mg/m ³	800 ppm	TWA: 100 ppm	TWA/LMPE-PPT: 200 ppm TWA/LMPE-PPT: 500 mg/m ³ STEL/LMPE-CT: 250 ppm STEL/LMPE-CT: 625 mg/m ³
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

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.

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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. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colored liquid	Physical State	Liquid
Odor	Characteristic	Odor Threshold	No information available
pH	No information available	Auto ignition 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
Vapour 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	Photochemical Reactive	No
Method	Closed cup		
Weight Per Gallon (lbs/gal)	7.85	Specific Gravity	0.94
VOC by weight % (less water)	70.29	VOC by volume % (less water)	81.25
VOC lbs/gal (less water)	5.53	VOC grams/liter (less water)	661.99
	VOC lbs/gal as defined by SCAQMD Rule 1171 = 3.40		VOC grams/liter as defined by SCAQMD Rule 1171 = 407.93

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)		

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Ethyl acetate	5620 mg/kg (Rat)	>18000 mg/kg (Rabbit) >20 mL/kg (Rabbit)	
n-Propyl alcohol	1870 mg/kg (Rat)		>13548 ppm (Rat) 4 h
Ethyl alcohol	7060 mg/kg (Rat)		124.7 mg/L (Rat) 4 h

Chronic Toxicity

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, Gastrointestinal tract, 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 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]
n-Propyl alcohol		96h LC50 Pimephales promelas: 4480 mg/L [flow-through]	48h EC50 Daphnia magna: 3339 - 3977 mg/L [static] 48h EC50 Daphnia magna: 3642 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

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Persistence and Degradability No information available
Bioaccumulation No information available
Mobility in Environmental Media No information available

Component	log Pow
Acetone	-0.24
Ethyl acetate	0.6
n-Propyl alcohol	0.25 - 0.34
Ethyl alcohol	-0.32

13. DISPOSAL CONSIDERATIONS

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 acetate	X	X	X	X
n-Propyl alcohol	X	X	X	X
Ethyl alcohol	X	X	X	X

