



SECTION 1 - CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: FAS-WS 140

PRODUCT USE: Ink

PRODUCT COLOR: White

Not recommended for: Consumer Use

Manufacturer/Supplier:

PANNIER CORPORATION

207 SANDUSKY STREET

PITTSBURGH, PA 15212-5823 U.S.A.

412-323-4900

sales@pannier.com

24 Hr Emergency Telephone Number: INFOTRAC 1-800-535-5053

SECTION 2 - HAZARDS IDENTIFICATION

GHS Ratings:

Flammable liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)
Eye corrosive	2	Eye Irritation: Reversible adverse effects on cornea, iris, conjunctiva, Draize score: Corneal opacity >= 1, Iritis > 1, Redness >= 2, Chemosis >= 2
Carcinogen	2	Limited evidence of human or animal carcinogenicity
Reproductive toxin	1B	Presumed, Based on experimental animals

GHS Hazards:

H225	Highly flammable liquid and vapour
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child

GHS Precautions:

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/light/manufacturer/equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P264	Wash contact area thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P308+P313	IF exposed or concerned: Get medical advice/attention
P337+P313	Get medical advice/attention
P370+P378	In case of fire: Use appropriate media for extinction
P405	Store locked up
P403+P235	Store in a well ventilated place. Keep cool
P501	Dispose of contents/container in accordance with local/regional/national/international regulations

Signal Word: Danger



Acute Toxicity

N/A

Conditions Aggravated

N/A

Chronic Effects

N/A

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %
Acetone	67-64-1	60.00% - 70.00%
Titanium (IV) dioxide	13463-67-7	10.00% - 20.00%
Cellulose Nitrate	9004-70-0	1.00% - 5.00%
Trade Secret	Trade Secret	1.00% - 5.00%
Isopropanol	67-63-0	1.00% - 5.00%
Silicon dioxide	7631-86-9	1.00% - 5.00%

SECTION 4 - FIRST AID MEASURES

INHALATION - Move affected person to fresh air, rest in a half upright position, and loosen clothing. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Seek medical advice after significant exposure.

EYE CONTACT - Flush with large amounts of water for at least 15 minutes. Lift eyelids occasionally. Get prompt medical attention.

SKIN - Wash thoroughly with soap and water immediately. Remove all contaminated clothing immediately. Seek medical advice if irritation persists.

INGESTION - Seek medical advice. The decision to induce vomiting or not must be made by a physician after careful consideration of all materials ingested. Risk of aspiration into lungs.

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media Carbon Dioxide---Dry Chemical---Foam---Water Fog Use water for cooling material stored in vicinity of fire.

Explosion Hazards 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 Attention.

Hazardous Combustion Products N/A

Recommended Fire Equipment Use self-contained breathing apparatus with a full-face piece operated in a pressure-demand or other positive pressure mode. Wear protective clothing

SECTION 6 - ACCIDENTAL RELEASE MEASURES

In Case of Spill Evacuate non-emergency personnel, Isolate the area and prevent access. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate. Contain the spill to prevent spread to drains, sewers, water supplies, or soil.

Cover spill area with a suitable absorbent material (Kitty Litter, Oil-Dri, etc.). Saturate absorbent material with neutralization solution and mix. Wait 15 minutes. Collect material in open-head metal containers. Repeat applications of decontamination solution with scrubbing, followed by absorbent until the surface is decontaminated. Check for residual surface contamination. Swipe test kits have been used for this purpose. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide diffuse.

To minimize vapor, cover the spillage with fire fighting foam (AFFF). Released material may be pumped into closed, but not sealing, metal containers for disposal. Process can generate heat.

Neutralization solutions

- (1) Colorimetric Laboratories Inc. (CLI) decontamination solution.
- (2) A mixture of 75% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10) and 5% n-propanol.
- (3) A mixture of 80% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10).
- (4) A mixture of 90% water 3-8% ammonium hydroxide or concentrated ammonia and 2% liquid detergent

SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling Keep away from food, drink and heat. Keep away from sources of ignition. No smoking. Do not breathe vapor. Avoid contact with skin and eyes. Never use pressure to empty. Take precautionary measures against static discharges.

Storage temperature

Minimum: do not freeze
Maximum: 40°C (104°F)

Storage Period- See technical data sheet.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Section 8 - Exposure Controls / Personal Protection

Chemical Name / CAS No	Other Exposure Limits	ACGIH Exposure Limits	OSH A Exposure Limits
Acetone 67-64-1	1000 ppm TWA; 2400 mg/m3 TWA	750 ppm STEL 500 ppm TWA	NIOSH: 250 ppm TWA; 590 mg/m3 TWA
Titanium (IV) dioxide 13463-67-7	15 mg/m3 TWA (total dust)	10 mg/m3 TWA	N/A
Cellulose Nitrate 9004-70-0	N/A	N/A	N/A
Trade Secret Trade Secret	N/A	N/A	N/A
Isopropanol 67-63-0	400 ppm TWA; 980 mg/m3 TWA	400 ppm STEL 200 ppm TWA	NIOSH: 400 ppm TWA; 980 mg/m3 TWA 500 ppm STEL; 1225 mg/m3 STEL
Silicon dioxide 7631-86-9	20 mppcf; TWA. - Table Z-3 Mineral Dusts	N/A	NIOSH: 6 mg/m3 TWA

Provide sufficient ventilation in volume and pattern to keep air containment 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.

Respiratory Protection- Operator is to use an approved half mask organic vapor respirator under normal conditions. An air supplied, positive pressure respirator may be required if working conditions to not provide adequate ventilation to keep exposures below the limits.

Skin and Body Protection- Wear chemical resistant gloves (nitrile) and paint suits. The most suitable glove must be chosen in consultation with the gloves supplier who can inform about the breakthrough time of the glove material.

Eye Protection- Wear approved chemical safety goggles where exposure to vapor or contact with eyes is possible. Eye wash stations should also be made available

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<p>pH N/A % Volume Solids 14.79 U.S. VOC Wt/Gal (wet) 0.17 Odor Acetone: Color White Flash Point: 1 F, -17 C Autoignition Temperature: 170°C Vapor Pressure: 169.4 mmHg Freezing Point: Not determined Viscosity Not determined</p>	<p>%Weight Solids 30.49 VOC Wt/Gal (wet) 5.66 Specific Gravity (SG) 0.976 Odor Threshold Not determined: Boiling Point: 56°C LEL/UEL: 2% - 13% Evaporation Rate (nBuAc=1): Not determined Vapor Density: 2.1 Partition coefficient: Not determined</p>
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SECTION 10 - STABILITY AND REACTIVITY

This material is considered stable

Hazardous polymerization will not occur.

The following materials should be avoided in contact with the mixture

Reducing agents

Oxidizing agents

Strong acids

Strong bases

Hazardous decomposition products

Carbon oxides

Titanium/titanium oxides

SECTION 11 - TOXICOLOGICAL INFORMATION**Mixture Toxicity**

Inhalation Toxicity LC50: 129mg/L

Component Toxicity

7631-86-9 Silicon dioxide
 Oral LD50: 5,000 mg/kg (Rat) Dermal LD50: 2,000 mg/kg (Rabbit) Inhalation LC50: 2 mg/L (Rat)
 LC50 and LD50 toxicity for this product are merely estimates and have yet to be determined. For individual component ecotoxicity, please refer to Section 11.

Possible Routes of Entry

Inhalation Skin Contact Eye Contact Ingestion

Potential Target Organs

Eyes Kidneys Liver Lungs Central Nervous System Skin Respiratory System

The following components are possible carcinogens

*Materials labeled a carcinogen in dust form are supplied in solution, thus eliminating the hazard

CAS Number	Description	% Weight	Carcinogen Rating
13463-67-7	Titanium (IV) dioxide	10-20%	Titanium (IV) dioxide: NIOSH: Potential occupational carcinogen (dust*) IARC: Possible human carcinogen (dust*) OSHA: listed (dust*)

SECTION 12 - ECOLOGICAL INFORMATION**Mixture Ecotoxicity****Toxicity-** Do not release into environment. May cause long term adverse effects.**Persistence and degradability-** N/A**Bioaccumulative potential-** N/A**Mobility in Soil-** N/A**Component Ecotoxicity**

Acetone	96 Hr LC50 Oncorhynchus mykiss: 4.74 - 6.33 mL/L; 96 Hr LC50 Pimephales promelas: 6210 - 8120 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 8300 mg/L 48 Hr EC50 Daphnia magna: 10294 - 17704 mg/L [Static]; 48 Hr EC50 Daphnia magna: 12600 - 12700 mg/L
Isopropanol	96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >1400000 µg/L 48 Hr EC50 Daphnia magna: 13299 mg/L 96 Hr EC50 Desmodemus subspicatus: >1000 mg/L; 72 Hr EC50 Desmodemus subspicatus: >1000 mg/L
Silicon dioxide	96 Hr LC50 Brachydanio rerio: 5000 mg/L [static] 48 Hr EC50 Ceriodaphnia dubia: 7600 mg/L 72 Hr EC50 Pseudokirchneriella subcapitata: 440 mg/L

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, state and local regulations. Controlled incineration is recommended for disposal of unused product. Prevent contamination of soil, drains and surface waters. Dispose of large containers to a licensed reconditioner. Dispose of small containers in compliance with local regulations.

SECTION 14 - TRANSPORT INFORMATION

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT	Printing Ink	UN1210	II	3
IATA	Printing Ink	UN1210	II	3
	Pkg Instr: Y341/353/364			
IMDG	Printing Ink	UN1210	II	3
	EmS: F-E, S-D			

SECTION 15 - REGULATORY INFORMATION

The following chemicals are listed in California Title 8 CCR Sections as Hazardous Substances

7631-86-9 Silicon dioxide

67-63-0 Isopropanol

67-64-1 Acetone

The following chemicals are listed in Section 64 of the Canadian Environmental Protection Act, 1999 (CEPA) - None

The following chemicals are classified by China - Environmental Quality Standards for Surface Water -

None

The following chemicals have been listed by the EU-End of Life Vehicles (2000/53/EC) (ELV): -

None

The following chemicals are listed in the EU-Substances of Very High Concern (2008/67/ED) (SVHC): -

None

The following chemicals are listed in the EU-Restriction of the use of certain Hazardous Substances (2011/65/EU) (RoHS): -

None

The following chemicals are listed under the European Union- Waste Electrical and Electronic Equipment (2012/19/EU) (WEEE) -

None

The following chemicals are included in the Global Automotive Declarable Substance List (GADSL)

9004-70-0 Cellulose Nitrate

The following substances are required for notification by the Japanese Enforcement Order of the Industrial Safety and Health Law (ISHL):

7631-86-9 Silicon dioxide

67-63-0 Isopropanol

9004-70-0 Cellulose Nitrate

13463-67-7 Titanium (IV) dioxide

67-64-1 Acetone

The following chemicals are listed on the Massachusetts Right-to-Know Hazardous Substances List.

7631-86-9 Silicon dioxide

67-63-0 Isopropanol

9004-70-0 Cellulose Nitrate

13463-67-7 Titanium (IV) dioxide

67-64-1 Acetone

The following chemicals are listed on the New Jersey Right-to-Know Hazardous Substances List.

7631-86-9 Silicon dioxide

67-63-0 Isopropanol

9004-70-0 Cellulose Nitrate

13463-67-7 Titanium (IV) dioxide

67-64-1 Acetone

The following chemicals are listed on the Pennsylvania Right-to-Know Hazardous Substances List.

7631-86-9 Silicon dioxide

67-63-0 Isopropanol

9004-70-0 Cellulose Nitrate

13463-67-7 Titanium (IV) dioxide

67-64-1 Acetone

The following chemicals are listed by the State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

13463-67-7 Titanium (IV) dioxide Carcinogen

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) requires certain facilities manufacturing, processing, or otherwise using listed toxic chemicals to report their environmental releases of such chemicals annually. The following chemicals are listed:

67-63-0 Isopropanol 1 to 5 %

Under Section 12(b) of the Toxic Substances Control Act (TSCA), exporters may need to notify the U.S. Environmental Protection Agency if they export or intend to export a product containing a chemical substance that is present on this list. The following substances are contained within this material: -

None

The following chemicals are listed as a Hazardous Air Pollutant under listed under the U.S. CAA (Clean Air Act) -

None

Country	Regulation	All Components Listed
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Canadian Domestic Substances List (DSL)	Yes
Canada	Canadian Non-Domestic Substances List (NSDL)	No
China	Inventory of Existing Chemical Substances Produced or Imported in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Europe	REACH Registered or Pre-Registered Substances and Intermediates	Yes
Japan	Japanese Inventory of Existing and New Chemical Substances (ENCS)	Yes
Japan	Japan Inventory of Industrial Safety and Health Law Substances (ISHL)	No
Korea	Korean Existing Chemical Inventory (KECI)	Yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	No
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes
USA	Toxic Substances and Control Act (TSCA)	Yes

EU Risk Phrases

Safety Phrase

SECTION 16 - OTHER INFORMATION

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals

Hazardous Material Information System (HMIS)



HMIS & NFPA Hazard Rating

Legend

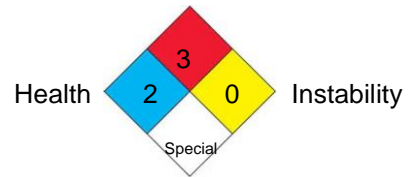
* = Chronic Health Hazard

0 = INSIGNIFICANT

1 = SLIGHT.

National Fire Protection Association (NFPA)

Flammability



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.