

SAFETY DATA SHEET

560 GREEN



Pannier requests that the users of this product study this Safety Data Sheet (SDS) and become aware of product hazards and safety Information.

To promote safe use of this product, a user should notify its employees, contractors and agents of the information in this SDS and any product hazards and safety information.

Section 1. Identification

Product name: 560 FOOD GRADE GREEN

Product use: Printing Ink

Use of the substance/mixture

Company: PANNIER CORPORATION
 207 Sandusky Street
 Pittsburgh, PA 15212-5823 USA
 www.pannier.com
 E-mail: sales@pannier.com
 Phone: 412-323-4900
 Emergency telephone: Infotrac 800-535-5053

Section 2. Hazards identification

Classification of the substance or mixture	Not classified. Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 17. 7% Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 19. 7% Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30. 2%
GHS label elements	No signal word.
Signal word	No known significant effects or critical hazards.
Hazard statements	
Precautionary statements	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand
General Prevention	Not applicable
Response	Not applicable.
Storage	Not applicable.
Disposal	Not applicable.
Hazards not otherwise classified	None known.

See Section 11 for more detailed information on health effects and symptoms.

Section 3. Composition/information on ingredients

Substance/mixture:	Mixture		
Ingredient name		%	CAS number
N-PROPYL ALCOHOL		1 – 5	71-23-8
POLYETHYLENE WAX		1 – 5	9002-88-4
CARBON BLACK		0 – 1	1333-86-4

Any concentration shown as a range is to protect confidentiality.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

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Section 4. First aid measures

Description of necessary first aid measures

Eye contact	Affected individual should remove contact lens, if present. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.
Inhalation	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur.

Section 4. First aid measures

Skin contact	In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Get medical attention if irritation develops.
Ingestion	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

See toxicological information {Section 11}

Section 5. Fire-fighting measures

Flammability of the product	Non-flammable.
Products of combustion	No specific data.
Explosion hazard	Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge.
Fire-fighting media and instructions	Use an extinguishing agent suitable for the surrounding fire.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Use suitable protective equipment (section 8).
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for cleaning up	Small spill : Absorb with an inert material and place in an appropriate waste disposal container. Large spill : Use appropriate containment to avoid environmental contamination. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal.

Section 7. Handling and storage

Handling	Do not ingest. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. Do not reuse container.
Storage	Keep container tightly closed. Store in a dry, cool and well-ventilated area. Store away from incompatible materials (see Section 10). Store in accordance with local regulations.

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Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
N-PROPYL ALCOHOL	ACGIH TLV (United States, 3/2018). TWA: 100 ppm 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. STEL: 625 mg/m ³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 500 mg/m ³ 10 hours. TWA: 200 ppm 10 hours. OSHA PEL (United States, 5/2018). TWA: 500 mg/m ³ 8 hours. TWA: 200 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). STEL: 625 mg/m ³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 500 mg/m ³ 8 hours. TWA: 200 ppm 8 hours.
CARBON BLACK	ACGIH TLV (United States, 3/2017). TWA: 3 mg/m ³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2016). TWA: 3.5 mg/m ³ 10 hours. TWA: 0.1 mg of PAHs/cm ³ 10 hours. OSHA PEL (United States, 6/2016). TWA: 3.5 mg/m ³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 3.5 mg/m ³ 8 hours.

Appropriate engineering Controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure Controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with sideshields.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved

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standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Values provided should not be construed as specifications. See product specification for additional information.

Physical state	Liquid.
Appearance	Green Liquid
Flash point	Closed cup: 95°C (203°F)
Boiling point	Lowest known value: 97°C (206.6°F) (propan-1-ol). Weighted average: 111.73°C (233.1°F)
Odor	Not available.
Odor threshold	Not available.
pH	Neutral.
Melting point/freezing point	May start to solidify at the following temperature: 0°C (32°F) This is based on data for the following ingredient: water. Weighted average: -10.27°C (13.5°F)
Evaporation rate	Highest known value: 0.933 (propan-1-ol) Weighted average: 0.29 compared with butyl acetate
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Greatest known range: Lower: 2.1% Upper: 13.5% (propan-1-ol)
Vapor pressure	Highest known value: 3.2 kPa (23.8 mm Hg) (at 20°C) (water). Weighted average: 2.75 kPa (20.63 mm Hg) (at 20°C)
Vapor density	Highest known value: 2.6 (Air = 1) (propane-1,2-diol). Weighted average: 2.45 (Air = 1)
Relative density	Weighted average: 1.92 (Water = 1)
Solubility(ies)	Not available.
Partition coefficient: noctanol/ water	Not available.
Auto-ignition temperature	Lowest known value: 371 °C (699.8° F) (propane-1,2-diol).
Decomposition temperature	Not available.
Viscosity	Dynamic: Highest known value: 43.43 cP (propane-1,2-diol) Weighted average: 31.14 cP
Explosive properties	Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge.
Oxidizing properties	Not available.

Section 10. Stability and reactivity

Reactivity	Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	No specific data.
Incompatible materials	No specific data.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Chronic effects

Ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
N-PROPYL ALCOHOL	A4	-	-	-	-	-

Additional information:

Not available.

Other toxic effects on humans

No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.

Specific effects on humans

Mutagenicity / Teratogenicity / Reproductive toxicity:

No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	3084 7 .2 mg/kg

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Section 11. Toxicological information

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, and Inhalation.

Potential acute health effects

Eye contact No known significant effects or critical hazards.
Inhalation No known significant effects or critical hazards.
Skin contact No known significant effects or critical hazards.
Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data.
Inhalation No specific data.
Skin contact No specific data.
Ingestion No specific data.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
N-PROPYL ALCOHOL	Acute EC50 4480000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 1000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 2950000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 3800000 µg/l Marine water	Fish - Alburnus alburnus	96 hours
CARBON BLACK	Acute EC50 37.563 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
N-PROPYL ALCOHOL	0.2	-	low

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

This product is not regulated for carriage according to ADR/RID, AON, IMDG, ICAO/IATA.

Section 15. Regulatory information

United States

U.S. Federal regulations **TSCA 8(a) PAIR:** Poly(oxy-1,2-ethanediyl), a-[(1, 1,3,3-tetramethylbutyl)phenyl]-hydroxy-
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): Not determined.
Commerce control list precursor: 2,2',2"-nitrotriethanol
SARA 302/304: No products were found.
SARA 311/312 Hazards identification: Immediate (acute) health hazard

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Clean Water Act (CWA) 311: ammonia; ammonia
Clean Water Act (CWA) 307: polychloro copper phthalocyanine
Clean Air Act (CAA) 112 accidental release prevention: No products were found.

State regulations

Connecticut Carcinogen Reporting: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: The following components are listed: AMMONIUM HYDROXIDE; AMMONIUM WATER; PROPYL ALCOHOL; PROPANOL
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: The following components are listed: AMMONIUM HYDROXIDE; PROPYLENE GLYCOL; 1,2-PROPANEDIOL; COPPER compounds; PROPYL ALCOHOL; 1-PROPANOL
New Jersey Spill: None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.
New York Acutely Hazardous Substances: The following components are listed: Ammonium hydroxide
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: The following components are listed: AMMONIUM HYDROXIDE; 1,2-PROPANEDIOL; COPPER COMPOUNDS; 1-PROPANOL
Rhode Island Hazardous Substances: None of the components are listed.

California Prop. 65

WARNING: This product can expose you to carbon black, respirable powder, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage level</u>
Carbon black, respirable powder	Yes.	No.		

Canada

<u>Hazardous ingredients (Canada)</u>	<u>%</u>	<u>CAS number</u>
PROPYLENE GLYCOL	5 - 10	57-55-6
N-PROPYL ALCOHOL	1 - 5	71-23-8
CARBON BLACK	0 - 1	1333-86-4

WHMIS (Canada)

Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

CEPA Toxic substances: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Ammonia (total); copper (and its compounds); n-propyl alcohol
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. See Section 11 for more detailed information on health effects and symptoms.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	1
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS®

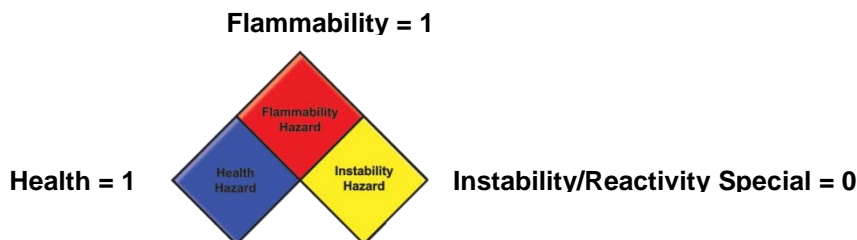
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ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association {U.S.A.}



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This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications

In NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk .

History

Date of issue: 4 December 2019

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▀ Indicates information that has changed from previously issued version.

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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