Material Safety Data Sheet #271

For Printing Inks and related Materials OSHA Hazard Communication Standard, 29 CFR 1910.1200 Date of preparation: 5-7-07 Updated: 1/17/2012

MSDS#: 271

I. PRODUCT IDENTIFICATION

| Manufacturer: Gans Ink and Supply Co, Inc. Address: 1441 Boyd Street Los Angeles, CA 90033 | HMIS HAZARD IDENTIFICATION |
|--|-----------------------------|
| | Health 1 |
| Emergency phone: (323) 264-2200 | Flammability 0 |
| | Reactivity 0 |
| | Personal B |
| | Protection |
| | |
| Product Class: Aqueous Satin Ink Train Coating | Manufacturer's code: S-1877 |
| Trade Name: Satin / Matte Ink Train Coating | |

II. HAZARDOUS INGREDIENTS

| Material | CAS# | % | Exposure Limits | Units |
|------------------------------|-----------|---------|--|----------------------------|
| Ammonium Hydroxide | 1336-21-6 | 0 – 1 | ACGIH TWA/TLV OSHA/ PEL ACGIH / STEL | 25 ppm 50 ppm 35 ppm |
| Sodium Dioctylsulfosuccinate | 577-11-7 | 1 – 5 | OSHA PEL ACGIH TLV/ TWA | NE NE |
| Ethylene Glycol | 107-21-1 | 20 – 25 | OSHA PEL ACGIH TLV/ TWA Ceili | 50 ppm ng 100 mg/m3 |
| | | | | |

NE= Not Established

The amount of Ammonium Hydroxide reported in Section 2 is calculated to be the excess neutralizer after creation of the polymer solution.

III. HEALTH HAZARD INFORMATION

Effects of Overexposure

Inhalation: Avoid inhalation. Inhalation is an unlikely route of exposure under conditions of intended use. Higher temperatures may generate vapors that may cause irritation of the respiratory tract. No chronic health hazards are associated with the components present in this product.

Skin Contact: Avoid skin contact. Skin contact is expected to be the primary route of occupational exposure. Prolonged or repeated contact with skin may cause mild irritation. Symptoms may include redness, itching, drying and cracking of skin.

Eye Contact: Avoid eye contact. Contact with eyes may cause mild irritation. Symptoms may include stinging, tearing, redness, swelling and / or burning.

Ingestion: Do not ingest. Ingestion is an unlikely route of exposure under conditions of intended use. Deliberate ingestion of excessive quantities may be harmful.

See Notes to Physician section below

IV. FIRST AID PROCEDURES

Emergency & First Aid Procedures

Eyes: Immediately flush eyes with large amounts of water and continue flushing for 15 minutes, lifting upper and lower lids occasionally. Seek immediate medical attention if irritation or redness persists.

Skin: Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. Solvents should not be used to clean skin because of increased penetration potential. If redness or irritation persists, seek immediate medical attention. Wash clothing and thoroughly clean shoes before reuse.

Inhalation: Remove victim from exposure, to fresh air. If victim is unconscious or if breathing difficulties develop seek immediate medical attention.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth and then drink plenty of water. DO NOT induce vomiting. Seek immediate medical attention.

Notes to Physician: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

V. FIRE AND EXPLOSION DATA

| Flash Point °F: > 200 °F Close C | up | Auto-ignition To | emperature °F: N o Data |
|------------------------------------|----------------|------------------|-------------------------|
| Flammable Limits in Air (% Volume) | Lower Limit: N | lo Data | Upper Limit: No Data |

Extinguishing Media: Water spray, dry extinguishing media, foam.

Special Fire Fighting Procedures: The use of self – contained breathing apparatus is recommended for fire fighters. Water may be use as an extinguishing medium. Water may be used to cool containers exposed to heat or flame. Use caution when approaching or handling fire- exposed containers.

Unusual Fire & Explosion Hazard: This material may burn and leak in the heat of a fire. CO₂, CO, smoke and other oxides of nitrogen and sulfur may be generated as products of combustion.

VI. ACCIDENTAL RELEASE

Steps to be taken in event of spill or release: Keep unnecessary personnel away from area. Ventilate area of spill. Use appropriate personal protective equipment. Absorb small spill with an inert material such as vermiculite, sand etc. (if large spill, dike area.). Scrape up with trowel or scoop and place in a suitable container. Clean up with a strong detergent and water. Keep all materials out of waterways, sewers and drains.

VII. HANDLING AND STORAGE

Handling and Storage: Store in containers in a cool, well-ventilated area. The slight ammonia smell can become stronger if the coating will be heated higher than room temperature. It is recommended that material be stored between 40 °F and 115 °F (4.5 °C - 45° C) Do not store in cold temperatures. Protect from freezing. Use or store this product with adequate ventilation. Close container after each use. Take precautionary measures against static charge.

Other Precautions: For industrial use only. Do not ingest. Consumption of food and beverages should be avoided in work areas. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor. Always wash hands and face with soap and water before eating, drinking, and smoking.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation Requirements: No special requirements under normal use conditions. General room ventilation is adequate. Adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specific exposure or flammable limits.

Personal Protective Equipment

Respirator: Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the material is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH / MSHA certified. Do not use compressed oxygen in hydrocarbon atmospheres.

Skin: Use impervious gloves when handling. Use a chemical resistant apron if a splash hazard exists.

Provide readily accessible safety showers.

Eye: Use approved eye protection to safeguard against potential eye contact, irritation, and injury. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety glasses or goggles. Eye protection should meet the specifications of ANSI Z87.1 Provide readily accessible eye wash stations.

IX. PHYSICAL AND CHEMICAL DATA

| Boiling Point °F: 212 °F | Vapor Density (Air = 1): Not available |
|--|---|
| Relative Density ($H_2O = 1$): 1.045 | Vapor Pressure (mm Hg @ 68°F): Not available |
| Material Density Lbs./Gal: 8.70 | Solubility in Water: Soluble |
| %Volatiles by Weight: 31.15 | Evaporation Rate: N/A pH: 8.7 ± 0.7 |
| VOC: lbs/gal: 2.71 g/L: 325.5 | Appearance/Odor: Milky White Liquid / Sl. |
| | Ammonia Odor |

X. STABILITY AND REACTIVITY INFORMATION

| Stability (Thermal, Light, etc.): Stable under | Conditions to avoid: Avoid excessive heat (> 140 | |
|---|---|--|
| normal conditions of storage and intended use. | °F) and sources of ignition. Avoid storage below 40 | |
| _ | °F (4.5 °C) and above 115 °F (45 °C) | |
| Hazardous Polymerization: Will not occur. Materials to avoid: Keep away from strong acids | | |
| Hazardous Decomposition Products: Carbon dioxide and carbon monoxide, smoke, oxides of nitrogen | | |
| and sulfur may be generated as products of combustion | | |

XI. TOXICOLOGICAL INFORMATION

CARCINOGEN: This product contains no listed carcinogens according to IARC, ACGIH, National Toxicology Program (NTP), and / or OSHA in concentrations of 0.1 percent or greater.

Mutagen:No DataTeratogen:No DataReproductive Toxicity:No Data

Information pertaining to the health effects and toxicity of the "pure" form of the hazardous components identified in Section 2 is presented below. This information reflects the known hazards associated with the components and may not reflect that of the purchased material due to concentration (dilution) effects. Review and interpretation by your Hazard Communication Department is recommended.

Sodium Dioctylsulfosuccinate

Oral: LD50: 1900 mg/kg (rat)
Draize Test, Skin: 10 mg/24H Moderate (rabbit)

Draize Test, Eye: 1% Severe (rabbit)
Inhalation: No Information available

Ammonium Hydroxide

Oral: LD50: 350 mg/kg (rat)
Skin Irritant: Severe irritant (rabbit)
Eye Irritant Severe irritant (rabbit)

Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA

Ethylene Glycol

Acute animal toxicity data:

 $\begin{array}{ll} \mbox{Ingestion} & \mbox{LD50}, > 4,700 \ \mbox{mg/kg (rat)} \\ \mbox{Inhalation} & \mbox{LC50 (1h)} :> 20 \mbox{mg/kg (rat)} \\ \mbox{Skin:} & \mbox{LD50:} > 2,000 \mbox{ mg/kg (rat)} \\ \mbox{Eye Irritation} & \mbox{Severe eye irritation} \\ \end{array}$

Chronic Health Hazard

This product contains ethylene glycol, which has been shown to cause dose-related teratogenic effects in rats and mice when given by gavage or drinking water at high concentrations or doses. Ethylene glycol has also caused teratogenic effects in mice when administered as an aerosol at a concentration of 2,500 mg/m3 for 6 hours a day throughout the period of organogenesis. Repeated ingestion of ethylene glycol has caused bladder and kidney stone formation, and kidney damage in laboratory animals. Two chronic feeding studies, using rats and mice, have not produced any evidence that ethylene glycol caused dose-related increases in tumor incidence.

XII. ECOLOGICAL INFORMATION

Information pertaining to the ecological fate of the "pure" form of the hazardous components identified in Section 2 is presented below. This information reflects the known hazards associated with the components and may not reflect that of the purchased material due to concentration (dilution) effects. Review and interpretation by your Hazard Communication Department is recommended

Sodium Dioctylsulfoccinate

No information available

Ammonium Hydroxide

Fish: Rainbow Trout: LC50: 0.008 mg/L: 24 hr Fish: Fathead minnow: LC50: 8.2 mg/L: 24 hr Water Flea: Daphnia: EC50: 0.66 mg/L; 48hr

Ethylene Glycol

Environmental Toxicity:

Fish: 96h, LC50 Fish > 100mg/1

Do not allow to enter waterways, drains, sewers or lakes.

XIII. DISPOSAL INFORMATION

Waste Disposal Method: If recycling as ink is not possible, material may be incinerated or land filled at a licensed facility in accordance with local, state, and federal regulations.

DO NOT introduce this product directly into public sewer systems.

Since emptied containers may retain product residues, all hazard precautions given in this data sheet should be observed.

XIV. TRANSPORT INFORMATION

Flammability Classification:

OSHA: Class III B

DOT Proper Shipping Name (ground): Resin compounds, liquid

DOT Hazard Classification:Not Applicable**DOT Packing Group:**Not Applicable**DOT UN ID:**Not Applicable

IMDG Proper Shipping Name (ocean): Resin compounds, liquid

IMDG Hazard Classification:Not ApplicableIMDG Packing Group:Not ApplicableIMDG UN ID:Not Applicable

ICAO / IATA Proper Shipping Name (air): Resin compounds, liquid

IATA Hazard Classification:Not ApplicableIATA Packing Group:Not Applicable

IATA UN ID: Not Applicable

TDG Shipping Name (ground): Resin compounds, liquid

TDG Hazard Classification:Not ApplicableTDG Packing Group:Not ApplicableTDG UN ID:Not Applicable

XV. REGULATORY INFORMATION

U.S Federal Regulations

EPA SARA Title Section 313 (40 CFR 372) Component (s) above 'de minimus' level:

This material contains a chemical subject to the reporting requirements of the SARA Superfund Amendments and Reauthorization Act.

| <u>Chemical</u> | CAS# | <u>%</u> | |
|-------------------|-----------|----------|--|
| Ammonia Hydroxide | 1336-21-6 | 0 - 1 | |
| Ethylene Glycol | 107-21-1 | 20 - 25 | |

Toxic Substances Control Act (TSCA) Section 8(b) Inventory Status:

The chemical components of this product are listed or have been registered for inclusion on the Section 8 (B) Chemical Substance Inventory List (40 CFR 710).

CERCLA Reportable Quantities

Components which could require reporting under CERCLA 40CFR 302.4

| Chemical_ | CAS# | CERCLA RQ |
|-------------------|-----------|------------|
| Ammonia Hydroxide | 1336-21-6 | 1,000 lbs. |
| Ethylene Glycol | 107-21-1 | 5,000 lbs. |

Clean Air Act Amendment (HAPs)

This product contains the following chemicals which are defined as Hazardous Air Pollutants under the Title III of the Clean Air Act Amendment of 1990.

| <u>Chemical</u> | <u>CAS #</u> | <u>%</u> |
|-----------------|--------------|----------|
| Ethylene Glycol | 107-21-1 | 20 - 25 |

U.S. State Regulations

Coalition of Northeast Governors (CONEG) Legislation:

This product is certified to be in full compliance with CONEG Model Toxics Legislation for packaging and packaging components.

California Proposition 65:

This product Does Not contain any chemicals known by the state of California to cause cancer and/or reproductive harm. Moreover, Gans Ink and Supply Co., Inc. does not routinely analyze its products for impurities which may be such chemicals.

Canadian WHMIS Classification

Components present listed in the WHMIS hazardous ingredient disclosure list.

| <u>Chemical</u> | <u>CAS #</u> |
|-------------------|--------------|
| Ammonia Hydroxide | 1336-21-6 |
| Ethylene Glycol | 107-21-1 |

XVI. OTHER INFORMATION

The information herein is presented in good faith, based on the data available to us and is believed to be correct as of the date hereof. However, Gans Ink and Supply Co., Inc. makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Gans Ink and Supply Co., Inc. assumes no responsibility for any damages of any nature directly or indirectly resulting from the use of or reliance upon the information contained herein. Users must make their own determination as to the suitability of the product for their purpose prior to use. In accordance with good practices of personal cleanliness and hygiene, handle with due care and avoid unnecessary contact with this product.



Safety Glasses Gloves

