



Adam Gates & Company, LLC

Fine Chemicals and Near Infrared Dyes

Adam Gates Company LLC
249 Homestead Rd. Building 5 Unit 4
Hillsborough NJ 08844 USA

Phone: 908-829-3386
Fax: 908-829-3387
Email: sales@adamgatescompany.com

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Material Safety Data Sheet For Screen Printing Inks required under 29 CFR 1910.120 (g)

EMERGENCY PHONE NUMBER

(908) 237-0300

PREPARER:

CHESTER C. SWASEY

HMIS RATINGS

HEALTH 2

FLAMMABILITY 2

REACTIVITY 0

1. Product Identification

Product Name: IR Ink Transparent Light Green
Label identity: Transparent Light Green Lamination Screen Ink
Product Class: Solvent evaporative screen ink; IR blocking
Intended use: Screen printing ink for PVC substrate

Adam, Gates & Company, LLC
45 River Road, Building 400 B
Flemington, NJ, 08822

Tel: 908-237-0300
Fax: 908-2370315
info@infraredabsorber.com

2. Composition

Common Name (CAS Number)	Percent by Weight (Range)	Exposure Limits ACGIH TLV-TWA	Exposure (PMM) ¹ OSHA (PEL)	Vapor Pressure (mm Hg @20°C) ¹
Ester S 14150 (90438-79-2)	20-35	50 ²	NE	2
Cyclohexanone S15500 (00108-94-1)	20-30	25 ³	50 ³	2
DIBASIC ESTER S16100 (MIXTURE)	7-14	NE	NE	<1
Naptha Solvent S17600 (64742-94- 5)	2 – 10	100 ²	400	<1
MIXTURE OF VISIBLE AND IR DYES	2 – 15	N/A	N/A	0

N/A = Not Applicable

NE=Not Established

UNK = Unknown

¹ Unless noted otherwise, limits are ppm and mm hg at 20 degrees centigrade, respectively, for exposure limits and vapor pressures

² Recommended by manufacturer

³ Skin absorption may contribute to the overall absorption of the material.

Appropriate measures should be taken to prevent absorption so that the tlv and/or pel limits are not invalidated.

3. Hazards Identification

Respiratory protection: where concentrations in air may exceed the limits outlined in section 2 and/or engineering, work practice or other means of exposure reduction are inadequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure.

Ventilation requirements: local exhaust recommended when appropriate to control exposure to mist or aerosols. General exhaust is normally sufficient to minimize exposure to vapors.

Protective gloves: rubber or neoprene to minimize skin contact.

Eye protection: safety goggles or full face shield.

Hygienic safety practices: wash hands before eating, using tobacco products or using the washroom. Tobacco and food should be consumed in designated areas only.

Additional safety equipment: impermeable aprons and boots. Safety shower and eye bath should be available

4. First aid measures.

Primary routes of entry are dermal and inhalation.

For swallowing: drink two glasses of water to dilute. Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult physician or poison control center immediately. Treat symptomatically. Be prepared to provide the attending physician a copy of this document.

For skin contact: remove contaminated clothing. Wash thoroughly with mild soap and warm water. Consult a physician if there is persisting irritation.

For inhalation: remove victim to a well-ventilated area. Give oxygen or artificial respiration as required. Treat symptomatically and consult physician.

For eye contact: flush with copious amounts of water for at least fifteen minutes. Consult physician for medical treatment, if necessary.

Special notes to attending physician: there is no specific antidote.

Treatment of overexposure should be directed at control of symptoms and grow the clinical condition

5. Fire fighting measures

Extinguishing media: alcohol resistant foam, carbon dioxide, powder, and water spray/mist. Do not use water jet.

Fire will produce dense black smoke containing hazardous products of decomposition (see section 10).

Exposure to decomposition products may be a health hazard. Appropriate self contained breathing apparatus may be required. Cool closed containers exposed to fire with water spray.

Do not allow run-off from fire fighting to enter drains or water sources.

6. Accidental release measures

Use non-sparking tools, place leaking containers in a well-ventilated area. Avoid breathing vapors. Refer to protective measures in section 7 and section 8.

Eliminate all sources of heat, sparks or other ignition sources. Notify proper authorities if public water may be contaminated.

Waste disposal: as a hazardous waste, this material must be disposed within accordance with federal, state, and local ordinances.

7. Handling and storage

Handling: keep containers tightly closed. Handle in well-ventilated areas. Avoid eye and skin contact. Avoid inhalation of vapors and mist.

Smoking, eating and drinking should be prohibited in areas of storage and use. Always keep in containers made of same material as the supply container. Good housekeeping standards are essential to avoid the exposure of all personnel and un-reacted materials. The manual handling operation regulations may apply to the handling of containers of this product.

Storage: observe the label precautions; store between 5 and 25 degrees centigrade in a dry, well-ventilated area away from sources of heat, ignition and direct sunlight. No smoking. The principles contained in the HSE guidance note storage of packaged dangerous substances should be observed when storing this product. Store separately from strong oxidizing agents, acids and bases.

8. Personal protection

Skin and eye contacts are the principal hazard. Persons with a history of skin sensitization problems should be careful and follow precautionary procedures when working in an area where this material is used or stored. See section 4.

9. Physical and chemical properties

Physical state: viscous liquid, mild odor - combustible

Boiling range: 156°C – 215°C

Density: 8.1 - 9.0 lbs. Per gallon

Voc content of material: 40.0 to 70.0% by weight or 565 - 645 grams per liter

Voc content minus water: 565 - 645 grams per liter

Vapor density: heavier than air

Evaporation rate: slower than diethyl ether

Flash point: >49°C , OSHA class II DOT: combustible liquid Explosive limits: unknown

Extinguishing media: class B fire extinguishers used in accordance with

Manufacturers instructions - "alcohol" foam, CO₂, dry chemical, water fog

10. Stability and reactivity

This product is stable under the recommended storage and handling conditions (see section 7). In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide and oxides of nitrogen may be produced. The product contains materials that are unstable when exposed to temperatures above 50 degrees centigrade, strong acids or bases or reactive metals. Contact with these could result in uncontrolled exothermic reactions. Keep dirty rags and wiping materials in an enclosed container.

11. Toxicological information

This material is formulated within the printing industry advisory committee guideline and the SBPIM's guidelines on materials for exclusion from printing inks and varnishes.

12. Ecological information

No data on the product itself is available. This product should not be allowed to enter drains or water courses or be disposed where it can affect ground or surface waters. The air pollution requirements of regulations made under the environmental protection act may apply to the use of this product.

13 Disposal considerations

Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Wastes, including empty containers are controlled wastes and should be disposed of in accordance with regulations made under the control of pollution act and the EPA. Using information provided in this data sheet, advice should be obtained from the waste regulation authority whether the special waste regulations apply.

14 Transport Information

Transportation, storage and handling: avoid conditions listed in section 7. Avoid prolonged storage at temperatures in excess of 50 degrees centigrade. Protect against the inhalation of dust or particles generated by sanding, blasting or abrading of the dried coating. This product is combustible. This product is not classified as dangerous for ground transport.

15Regulatory Information

This product is classified and labeled for supply in accordance with the chemicals regulation as follows: Irritant- contains ketones and esters. May be irritating to eyes, respiratory system and skin. Avoid contact with skin and eyes. See section 4. The information contained in this MSDS does not constitute the user's own

assessment of workplace risks as required by other health and safety legislation. The provisions of the health and safety at work, etc. act and the control of substances hazardous to health regulations apply to the use of this product at work.

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