



MATERIAL SAFETY DATA SHEET

5601 Eastport Blvd.
Richmond, VA 23231
1-800-280-6013

Emergency Phone Number: 800-424-9300

SECTION I – PRODUCT IDENTIFICATION

Date: August 24, 2010

Product Code: ICUVVCDG
Product Name: Instacure High Gloss Topcoat for Digital
Product Class: UV Coating

SECTION II – HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, white

WARNING! MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE ALLERGIC SKIN REACTION. CAUSES EYE AND SKIN IRRITATION.

Potential Health Effects

Exposure routes: Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact: Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin contact: Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. The feeling of irritation or pain may be delayed. Additional symptoms of skin contact may include: allergic skin Reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects) Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Ingestion: Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation: Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition: Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions), Liver, kidney, Central nervous system, Heart, male reproductive system, Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

Symptoms: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), pain in the abdomen and lower back, allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects), lung edema (fluid buildup in the lung tissue), acute kidney failure (sudden slowing or stopping of urine production)

Target Organs: Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: anemia, testis damage, heart damage, central nervous system damage, kidney damage, liver damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: kidney damage, liver damage

Carcinogenicity: There was an increase in kidney tumors in male, but not female rats given triethanolamine by skin application for two years. When given in the drinking water, triethanolamine caused an increase in tumors in female mice in one study, but not in another. It had no effect on tumor incidence when given in the drinking water of rats. The relevance of these findings to humans is uncertain. Triethanolamine is not listed as carcinogenic by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard: This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Other information: This product contains amines which may react with nitrites or other nitrosating agents to form nitrosamines. Certain nitrosamines have been shown to cause cancer in laboratory animals.



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SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Components</u>	<u>CAS-No.</u>	<u>Concentration</u>
ESTER	254504001-5534	>=30-<40%
ACRYLATED RESIN		>=15-<20%
ACRYLATE ESTER	254504001-5708	>=10-<15%
ACRYLATE	254504001-5691	>=5-<10%
ALKANOLAMINE	254504001-5144	>=5-<10%
AROMATIC HYDROCARBON	254504001-5689	>=5-<10%
DIETHYLENE GLYCOL	111-46-6	>=1.5-<5%

SECTION IV – FIRST AID MEASURES

Eyes: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin: Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: No information available.

Treatment: No information available.

SECTION V – FIRE FIGHTING MEASURES

Suitable extinguishing media: Water spray, Dry chemical, Carbon dioxide (CO₂), Foam

Hazardous combustion products: nitrogen oxides (NO_x), carbon dioxide and carbon monoxide

Precautions for fire-fighting: Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes. Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.

NFPA Flammable and Combustible Liquids Classification: Combustible Liquid Class III B

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal precautions: For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions: Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Other information: Comply with all applicable federal, state, and local regulations.

SECTION VII – HANDLING AND STORAGE

Handling: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Do not use pressure to empty drums.

Storage: Store in a cool, dry, ventilated area. Keep containers closed when not in use.



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SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

ALKANOLAMINE	254504001-5144
ACGIH	time weighted average
	5 mg/m ³

General advice: These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects. Ozone can be generated during use of EB and UV curing equipment. Symptoms of ozone exposure may include headache, sore or dry nose and throat, coughing and chest tightness. Provide adequate ventilation to control ozone exposures within ACGIH exposure guidelines of 0.05 ppm (TWA-heavy work), 0.08 ppm (TWA-moderate work), 0.1 ppm (TWA-light work), or 0.2 ppm (heavy/moderate/light work loads for two hours or less).

Eye protection: Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist. Maintain eye wash station near work area.

Skin and body protection: Wear resistant gloves (consult your safety equipment supplier). Discard gloves that show tears, pinholes, or signs of wear.

Respiratory protection: A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air purifying respirator may not provide adequate protection.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid	Density	1.080 g/cm ³ 9 lb/gal @77°F/25°C
Form	No data available	Bulk Density	No data
Colour	Light yellow	Water solubility	No data available
Odour	No data available	Solubility	No data available
Boiling point/ boiling range	No data available	Partition coefficient: n-octanol/water	No data available
Melting point/range	No data available	Log Pow	No data available
Sublimation point	No data available	Autoignition temperature	No data available
pH	No data available	Viscosity, dynamic	(Average) 100mPa.s
Flash point	(>)212°F / 100° C	Viscosity, kenmatic	No data available
Ignition temperature	No data available	Solids in Solution	No data available
Evaporation rate	No data available	Decomposition temperature	No data available
Lower/Upper explosion limit	No data available	Burning number	No data available
Particle size	No data available	Dust explosion constant	No data available
Vapour pressure	No data available	Minimum ignition energy	No data available
Relative vapour density	No data available		

SECTION IX – STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Conditions to avoid: Extremes of temperature and direct sunlight., Freezing temperatures., Blanketing with inert gas. This product should not be heated above 140 degrees F (60 degrees C) in the presence of aluminum due to excessive corrosion and potential chemical reaction releasing flammable hydrogen gas.



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Incompatible products: Acids, acetone-like, Aldehydes, aluminum, Copper, halogenated hydrocarbons, Ketones, strong alkalis, Strong oxidizing agents, Metals, organic anhydrides, organic halides, Strong bases

Hazardous decomposition products: carbon dioxide and carbon monoxide, nitrogen oxides (NOx), Ammonia

Hazardous reactions: Product can undergo hazardous polymerization., Avoid exposure to excessive heat, peroxides and polymerization catalysts., Hazardous polymerization may occur upon depletion of inhibitor – may cause heat and pressure build-up in closed containers.

Thermal decomposition: No data

SECTION XI – TOXICOLOGICAL INFORMATION

	Acute Oral Toxicity	Acute Inhalation Toxicity	Acute Dermal Toxicity
Ester	LD 50 Rat: 5g/kg	No data available	No data available
Acrylated Resin	No data available	No data available	No data available
Acrylate Ester	No data available	No data available	LD 50 Rabbit: 5,170 mg/kg
Acrylate	No data available	No data available	No data available
Alkanolamine	LD 50 Rat: 8,680 mg/kg	No data available	LD 50 Rabbit:>20,000mg/kg
Aromatic Hydrocarbon	LD 50 Rat: >10g/kg	No data available	LD 50 Rabbit: (>)3,535mg/kg
Diethylene Glycol	LD 50 Rat: 12,565 mg/kg	LC Lo Mouse: 130 mg/m3; 2h	LD 50 Rabbit: 11,890 mg/kg

SECTION XII – ECOLOGICAL INFORMATION

	Biodegradability	Bioaccumulation
Ester	No data available	No data available
Acrylated Resin	No data available	No data available
Acrylate Ester	No data available	No data available
Acrylate	No data available	No data available
Alkanolamine	97% exposure time: 28 d	No data available
Aromatic Hydrocarbon	0% exposure time: 14d Not readily biodegradable	No data available
Diethylene Glycol	92% Exposure time: 28 d	No data available

Ecotoxicity Effects

	Toxicity to Fish	Toxicity to daphnia & other aquatic invertebrates
Ester	No data available	No data available
Acrylated Resin	No data available	No data available
Acrylate Ester	No data available	No data available
Acrylate	No data available	No data available
Alkanolamine	96h flow-through test LC 50 Fathead minnow (Pimephales pomelas): 10,610.00-13,010.00mg/1	24 h static test EC 50 Water flea (Daphnia magna): 2,038.00 mg/1
Aromatic Hydrocarbon	96h LC 50 Fathead minnow (Pimephales pomelas):9.64-12.31mg/1 Method: Flow through; Mortality	24 h EC 50 Water flea (Daphnia magna): .21-.37 mg/1 Method: Static Intoxication
Diethylene Glycol	96h LC 50 Western mosquito fish (Gambusia affinis): 32,000.00 mg/1 Method: Static; Mortality	24h LC 50 Water flea (Daphnia magna): >10,000.00 mg/1 Method: Static Mortality



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	Toxicity to algae	Toxicity to bacteria
Ester	No data available	No data available
Acrylated Resin	No data available	No data available
Acrylate Ester	No data available	No data available
Acrylate	No data available	No data available
Alkanolamine	72h growth inhibition EC 50 Desmodesmus subspicatus (green algae): 216.00-750.00 mg/1	No data available
Aromatic Hydrocarbon	No data available	No data available
Diethylene Glycol	No data available	No data available

Additional ecological information

	Biochemical Oxygen Demand (BOD)	Chemical Oxygen Demand (COD)
Ester	No data available	No data available
Acrylated Resin	No data available	No data available
Acrylate Ester	No data available	No data available
Acrylate	No data available	No data available
Alkanolamine	No data available	No data available
Aromatic Hydrocarbon	No data available	No data available
Diethylene Glycol	No data available	No data available

SECTION XIII – DISPOSAL CONSIDERATIONS

Waste disposal methods: As a hazardous waste, this material must be disposed of in accordance with all federal, state, and local ordinances. Inquire of your local environmental agencies for the exact legal requirements in your area.

SECTION XVI – TRANSPORTATION INFORMATION

REGULATION

ID Number	Proper Shipping Name	*Hazard Class	Subsidiary Hazards	Packing Group	Marine Pollutant/LTD.QTY.
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U.S. DOT – ROAD: Not dangerous goods

U.S. DOT – RAIL: Not dangerous goods

U.S. DOT - INLAND WATERWAYS: Not dangerous

TRANSPORT CANADA – ROAD: Not dangerous goods

TRANSPORT CANADA – RAIL: Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS: Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION – CARGO: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION – PASSENGER: Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES:

Not dangerous goods

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION XV – REGULATORY INFORMATION

California Prop. 65

WARNING! This product contains a chemical know to the State of California to cause cancer: 1, 4-DIOXANE

SARA Hazard Classification

Acute Health Hazard



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	New Jersey RTK Label Info	Pennsylvania RTK Label Info
Ester	254504001-5534	254504001-5534
Acrylated Resin		
Acrylate Ester	254504001-5708	254504001-5708
Acrylate	254504001-5691	254504001-5691
Polymer	254504001-5637	254504001-5637
Aromatic Hydrocarbon		254504001-5689
Alkanolamine		254504001-5144
Diethylene Glycol		111-46-6

Notification status

EU. EINECS	Y (positive listing)
US Toxic Substances Control Act	Y (positive listing)
Australia Industrial Chemical (Notification & Assessment Act)	Y (positive listing)
Canada. Canadian Environmental Protection ACT (CEPA) Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	Y (positive listing)
Japan. Kashin-Hou Law List	Y (positive listing)
Korea. Toxic Chemical Control Law (TCCL) List	Y (positive listing)
Phillipines. The Toxic Substances & Hazardous & Nuclear Waste Control Act	N (negative listing)
China. Inventory of Existing Chemical Substances	Y (positive listing)

Reportable quantity – Product: US. EPA CERCLA Hazardous Substances (40 CFR 302) 166666 lbs

Reportable quantity-Components: DIETHANOLAMINE 111-42-2 100 lbs

	HMIS	NFPA
Health	2*	22
Flammability	1	11
Physical Hazards	1	
Instability		1
Specific Hazard		

SECTION XVI – DISCLAIMER

The user's attention is drawn to the risks brought upon by the misuse of the product. This data sheet does not exempt the user from knowing and applying the regulations corresponding to his activity. It is his own responsibility to take the precautions according to his used of the product.

For industrial use only. Keep this and all chemicals out of the reach of children.

Drytac Corporation makes no warranty, expressed or implied, as to the accuracy or liability of the information and data contained herein. It is believed to be accurate at the time of preparation and has been obtained from sources believed to be generally reliable. No warranty or liability for the accuracy is made and no liability will be assumed for claims arising from any party's use of or reliance on information or recommendations contained herein. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Drytac Corporation urges the customer receiving this material safety data sheet to study it carefully to become aware of hazards, if any, of the products involved. In the interest of safety, you should (1) Notify your employees, agents and contractors of the information on this sheet, (2) Furnish a copy to each of your customers for this product, and (3) Request your customers to inform their employees, customers, and agents as well.