



SAFETY DATA SHEET

SECTION 1 - Chemical Product and Company Information

Product Name: HIGH SOLIDS FLAT LACQUER (1G) Product Code: 183-1

Manufactured by:

Gemini Coatings
2300 Holloway Drive
El Reno, OK 73036
800-262-5710

24- Hour Emergency (Spill, Leak, Exposure or Accident):
INFOTRAC 800-535-5053
Outside USA, Call Collect 1-352-323-3500

24- Hour Emergency HAZMAT Response and MSDS Help:
EMI 800-510-8510

Product Use: A protective and/or decorative finish or accompanying product (reference label or product data sheet for more information).

Not recommended for: Any other use not detailed on product data sheet or label.

SECTION 2 - Hazards Identification

GHS Ratings:

Flammable liquid	1	Flash point < 23°C and initial boiling point ≤ 35°C (95°F)
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: ≥ 2.3 < 4.0 or persistent inflammation
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days
Mutagen	1B	Known to produce heritable mutations in human germ cellsSubcategory 1B, Positive results: In vivo heritable germ cell tests in mammals, Human germ cell tests, In vivo somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity
Carcinogen	1A	Known Human Carcinogen Based on human evidence
Reproductive toxin	1A	Based on human evidence
Aspiration hazard	1	Aspiration Toxicity Category 1: Known (regarded)- human evidence - hydrocarbons with kinematic viscosity ? 20.5 mm ² /s at 40° C.

GHS Hazards

H224	Extremely flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H340	May cause genetic defects
H350	May cause 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/mixers/equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P264	Wash any exposed skin thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection

P281	Use personal protective equipment as required
P321	Specific treatment (see First Aid section on this label)
P331	Do NOT induce vomiting
P362	Take off contaminated clothing and wash before reuse
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302+P352	IF ON SKIN: Wash with soap and water
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
P332+P313	If skin irritation occurs: Get medical advice/attention
P337+P313	Get medical advice/attention
P370+P378	In case of fire: Use the NFPA Class B extinguisher for extinction
P405	Store locked up
P403+P235	Store in a well ventilated place. Keep cool
P501	Do not flush to sewer, watershed or waterway. Dispose of product in accordance with applicable local, county, state and federal regulations.

Signal Word: Danger



SECTION 3 - Composition/Information on Ingredients

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
TOLUENE 108-88-3 20 to 30%	200 ppm TWA	20 ppm TWA	NIOSH: 100 ppm TWA; 375 mg/m ³ TWA 150 ppm STEL; 560 mg/m ³ STEL
n-Butyl acetate 123-86-4 10 to 20%	150 ppm TWA; 710 mg/m ³ TWA	200 ppm STEL 150 ppm TWA	NIOSH: 150 ppm TWA; 710 mg/m ³ TWA 200 ppm STEL; 950 mg/m ³ STEL
Xylenes (o-, m-, p- isomers) 1330-20-7 10 to 20%	100 ppm TWA; 435 mg/m ³ TWA	150 ppm STEL 100 ppm TWA	
Ethyl alcohol 64-17-5 10 to 20%	1000 ppm TWA; 1900 mg/m ³ TWA	1000 ppm STEL	NIOSH: 1000 ppm TWA; 1900 mg/m ³ TWA

Nitrocellulose 9004-70-0 5 to 10%			
DOA PLASTICIZER 103-23-1 5 to 10%			
IBIB 97-85-8 1 to 5%			
Ethylbenzene 100-41-4 1 to 5%	100 ppm TWA; 435 mg/m3 TWA	20 ppm TWA	NIOSH: 100 ppm TWA; 435 mg/m3 TWA 125 ppm STEL; 545 mg/m3 STEL
Isopropyl alcohol 67-63-0 1 to 5%	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
Silica gel, precipitated, crystalline free 112926-00-8 1 to 5%			

SECTION 4 - First Aid Measures

Inhalation:

Remove exposed individual to fresh air and assist breathing if necessary. Seek medical attention.

Eye Contact:

Flush eyes with lukewarm water for 15 minutes. Seek medical attention immediately.

Skin:

Remove contaminated clothing, wash area immediately with soap and water. See physician if irritation persists.

Ingestion:

Rinse mouth out immediately. Drink 1 or 2 glasses of water to dilute. DO NOT induce vomiting. Contact physician or poison control center immediately.

SECTION 5 - Fire Fighting Measures

Alcohol Foam, CO2, Dry Chemical

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat. Do not apply to hot surfaces. Never use welding or cutting torch on or near container (even empty) because product (even residue) may ignite explosively. Liquid and vapor states of this substance are dangerous fire hazards and moderate explosion hazards when exposed to heat or flame.

Oxidation may produce carbon and nitrogen oxides.

Clear fire area of unprotected personnel. Do not enter confined space without helmet, face shield, bunker coat, gloves, rubber boots and a positive pressure NIOSH-approved self-contained breathing apparatus. A water stream can scatter flames. A spray of water may be used to cool closed containers to prevent pressure buildup and possible auto ignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.

Use the National Fire Protection Association Class B extinguisher.

SECTION 6 - Accidental Release Measures

Stay upwind and away from spill or leak unless wearing appropriate protective equipment. Stop and/or contain discharge if it may be done safely. Keep all sources of ignition away. Ventilate area of spill. Use non-sparking tools for clean up. Cover with inert material to reduce fumes. Keep out of drains, sewer or waterways.

If large spill occurs, alert spill response teams. Contact fire authorities. Notify local health and pollution control agencies.

SECTION 7- Handling and Storage**Handling:**

Bond and ground metal containers when transferring liquid. Avoid free fall of liquid in excess of a few inches. Personnel should avoid inhalation of vapors. Personal contact with the product should be avoided. Should contact be made, remove saturated clothing and flush affected skin areas with water. 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 this sheet must be observed.

Storage:

Keep product containers cool, dry and away from sources of ignition. Use and store this product with adequate ventilation. DO NOT SMOKE in or near storage areas.

SECTION 8 - Exposure Controls/Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
TOLUENE 108-88-3	200 ppm TWA	20 ppm TWA	NIOSH: 100 ppm TWA; 375 mg/m3 TWA 150 ppm STEL; 560 mg/m3 STEL
n-Butyl acetate 123-86-4	150 ppm TWA; 710 mg/m3 TWA	200 ppm STEL 150 ppm TWA	NIOSH: 150 ppm TWA; 710 mg/m3 TWA 200 ppm STEL; 950 mg/m3 STEL
Xylenes (o-, m-, p- isomers) 1330-20-7	100 ppm TWA; 435 mg/m3 TWA	150 ppm STEL 100 ppm TWA	
Ethyl alcohol 64-17-5	1000 ppm TWA; 1900 mg/m3 TWA	1000 ppm STEL	NIOSH: 1000 ppm TWA; 1900 mg/m3 TWA
Nitrocellulose 9004-70-0			
DOA PLASTICIZER 103-23-1			
IBIB 97-85-8			
Ethylbenzene 100-41-4	100 ppm TWA; 435 mg/m3 TWA	20 ppm TWA	NIOSH: 100 ppm TWA; 435 mg/m3 TWA 125 ppm STEL; 545 mg/m3 STEL
Isopropyl alcohol 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
Silica gel, precipitated, crystalline free 112926-00-8			

Use local exhaust as required to control vapor concentrations.
Avoid prolonged or repeated breathing of vapors.

Respiratory Protection:

If exposure exceeds TLV or PELs, use NIOSH approved respirator to prevent overexposure.

Skin Protection:

Required for prolonged or repeated contact. Wear resistant gloves such as natural rubber, neoprene, buna N or nitrile.
An apron should be worn to avoid skin contact.

Eye Protection:

Wear splash proof goggles and face shield if there is a likelihood of contact with eyes.

Hygienic Practices

Wash hands thoroughly before eating or using the restroom. Remove contaminated clothing immediately and do not wear again until it has been properly laundered.

SECTION 9 - Physical and Chemical Properties

Vapor Density Heavier Than Air Boiling range: 34°C Freezing point: N/A Flammability: N/A Autoignition temperature: 170°C Relative Density: N/A Odor threshold: N/A SPECIFIC GRAVITY 0.9286 Partition coefficient (n- N/A octanol/water): Grams VOC less water: N/A % WT. VOLATILE (VOC) 72.7999 Lbs VOC/Gallon Solids 26.8333 SOLIDS VOL% 20.9773 SPREAD @ 1 MIL 336.4759 Appearance Colored Liquid Physical State Liquid Coating VOC (g/l) 677.1967 Coating VOC (Lb/Gl) 5.6513	Evaporation Rate Faster than Butyl Acetate Melting point: N/A Flash point: 39 F, 4 C Explosive Limits: N/A Decomposition temperature: N/A Vapor Pressure N/A pH: N/A Solubility: N/A Viscosity: N/A % VOLUME VOLATILE (VOC) 78.6261 % Pig. by wt. 1.2480 VOLATILE WT% 73.2267 DENSITY (Lb/Gal) 7.7320 HAPS (lbs/gl) 2.9455 Odor N/A Material VOC (g/l) 674.5111 Material VOC (Lb/Gl) 5.6289
--	--

SECTION 10 - Stability and Reactivity

Stability: Stable under normal conditions.

Materials to Avoid: Strong oxidizing agents, strong alkalines, strong mineral acids.

Conditions to avoid: high heat, sparks, flames, static discharge.

Hazardous Decomposition: Oxidation may produce carbon and nitrogen oxides.
Hazardous polymerization will not occur.

SECTION 11 - Toxicological Information

Mixture Toxicity

Inhalation Toxicity LC50: 40mg/L

Component Toxicity

108-88-3	TOLUENE Oral LD50: 2,600 mg/kg (Rat) Inhalation LC50: 13 mg/L (Rat)
100-41-4	Ethylbenzene Oral LD50: 3,500 mg/kg (Rat) Inhalation LC50: 17 mg/L (Rat)
67-63-0	Isopropyl alcohol Oral LD50: 1,870 mg/kg (Rat) Dermal LD50: 4,059 mg/kg (Rabbit)

Primary Routes of Entry: Inhalation, Skin Contact, Eyes, Ingestion

Skin:

Skin contact can cause redness, dryness or rash. Prolonged contact can cause irritation, dry skin, cracks, and dermatitis.

Ingestion:

Can cause vomiting, nausea, diarrhea, and gastrointestinal irritation.

Inhalation:

Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache possible unconsciousness and even asphyxiation. High vapor concentrations or prolonged breathing of lower concentrations may result in damage to the liver, kidneys, lungs and blood forming organs. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

Eyes:

Can cause irritation, redness, tearing and blurred vision.

Carcinogenicity: The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing).

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
100-41-4	Ethylbenzene	1 to 5%	Ethylbenzene: IARC: Possible human carcinogen OSHA: listed
64-17-5	Ethyl alcohol	10 to 20%	Ethyl alcohol: IARC: Human carcinogen OSHA: listed

SECTION 12 - Ecological Information
--

Ecological Information:

Uncontrolled release of the product may result in contamination of air, ground, waterways and/or sewers.

Component Ecotoxicity

TOLUENE

96 Hr LC50 Pimephales promelas: 15.22 - 19.05 mg/L [flow-through] (1 day old); 96 Hr LC50 Pimephales promelas: 12.6 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.89 - 7.81 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 14.1 - 17.16 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.8 mg/L [semi-static]; 96 Hr LC50 Lepomis macrochirus: 11.0 - 15.0 mg/L [static]; 96 Hr LC50 Oryzias latipes: 54 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 28.2 mg/L [semi-static]; 96 Hr LC50 Poecilia reticulata: 50.87 - 70.34 mg/L [static]; 48 Hr EC50 Daphnia magna: 5.46 - 9.83 mg/L [Static]; 48 Hr EC50 Daphnia magna: 11.5 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: >433 mg/L; 72 Hr EC50 Pseudokirchneriella subcapitata: 12.5 mg/L [static]

n-Butyl acetate

96 Hr LC50 Lepomis macrochirus: 100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 17 - 19 mg/L [flow-through]; 72 Hr EC50 Desmodesmus subspicatus: 674.7 mg/L

Xylenes (o-, m-, p- isomers)

96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 2.661 - 4.093 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 13.5 - 17.3 mg/L; 96 Hr LC50 Lepomis macrochirus: 13.1 - 16.5 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 19 mg/L; 96 Hr LC50 Lepomis macrochirus: 7.711 - 9.591 mg/L [static]; 96 Hr LC50 Pimephales promelas: 23.53 - 29.97 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 780 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: >780 mg/L; 96 Hr LC50 Poecilia reticulata: 30.26 - 40.75 mg/L [static]; 48 Hr EC50 water flea: 3.82 mg/L; 48 Hr LC50 Gammarus lacustris: 0.6 mg/L

Ethyl alcohol

96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]; 48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]

DOA PLASTICIZER

96 Hr LC50 *Lepomis macrochirus*: 0.48 - 0.85 mg/L [static]; 96 Hr LC50 *Oncorhynchus mykiss*: 0.48 - 0.85 mg/L [static]; 96 Hr LC50 *Pimephales promelas*: 0.48 - 0.85 mg/L [static]
 48 Hr EC50 *Daphnia magna*: >1.6 mg/L
 72 Hr EC50 *Desmodesmus subspicatus*: >500 mg/L

Ethylbenzene

96 Hr LC50 *Oncorhynchus mykiss*: 11.0 - 18.0 mg/L [static]; 96 Hr LC50 *Oncorhynchus mykiss*: 4.2 mg/L [semi-static]; 96 Hr LC50 *Pimephales promelas*: 7.55 - 11 mg/L [flow-through]; 96 Hr LC50 *Lepomis macrochirus*: 32 mg/L [static]; 96 Hr LC50 *Pimephales promelas*: 9.1 - 15.6 mg/L [static]; 96 Hr LC50 *Poecilia reticulata*: 9.6 mg/L [static]
 48 Hr EC50 *Daphnia magna*: 1.8 - 2.4 mg/L
 72 Hr EC50 *Pseudokirchneriella subcapitata*: 4.6 mg/L; 96 Hr EC50 *Pseudokirchneriella subcapitata*: >438 mg/L; 72 Hr EC50 *Pseudokirchneriella subcapitata*: 2.6 - 11.3 mg/L [static]; 96 Hr EC50 *Pseudokirchneriella subcapitata*: 1.7 - 7.6 mg/L [static]

Isopropyl alcohol

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 *Desmodesmus subspicatus*: >1000 mg/L; 72 Hr EC50 *Desmodesmus subspicatus*: >1000 mg/L

SECTION 13 - Disposal Considerations

Do not flush to sewer, watershed or waterway. Dispose of product in accordance with applicable local, county, state and federal regulations. See Section 8 for information on exposure control and necessary personal protective equipment.

SECTION 14 - Transportation Information
--

Ship according to the Department of Transportation (DOT) 49 CFR regulations.

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	PAINT	UN1263	II	3
	Freight Class: 55			

SECTION 15 - Regulatory Information
--

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

This product contains a listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

100-41-4 Ethylbenzene
 64-17-5 Ethyl alcohol
 108-88-3 TOLUENE

The following ingredients are listed in the TSCA Section 8(b) Inventory (Hydrated forms of chemical substances are exempt from the inventory as mixtures; the anhydrous chemical substances, however, are reportable for the Inventory):

67-63-0 Isopropyl alcohol
 100-41-4 Ethylbenzene
 97-85-8 IBIB
 103-23-1 DOA PLASTICIZER
 9004-70-0 Nitrocellulose
 64-17-5 Ethyl alcohol
 1330-20-7 Xylenes (o-, m-, p- isomers)
 123-86-4 n-Butyl acetate
 108-88-3 TOLUENE

US CAA Section 112 Hazardous Air Pollutants (HAPs) List

100-41-4 Ethylbenzene
 1330-20-7 Xylenes (o-, m-, p- isomers)
 108-88-3 TOLUENE

US EPCRA (SARA Title III) Section 313 - Toxic Chemical:

67-63-0 Isopropyl alcohol
100-41-4 Ethylbenzene
1330-20-7 Xylenes (o-, m-, p- isomers)
108-88-3 TOLUENE

Hazardous Material Information System (HMIS)

HEALTH	*	2	HMIS & NFPA Hazard Rating Legend * = Chronic Health Hazard 0 = INSIGNIFICANT 1 = SLIGHT 2 = MODERATE 3 = HIGH
FLAMMABILITY		3	
PHYSICAL HAZARD		3	
PERSONAL PROTECTION		X	

SECTION 16 - Disclaimer

Date Prepared: 4/21/2015

Date revised: 2015-04-07

Reviewer Revision 1

THIS DOCUMENT SUPERSEDES ANY PROVISION CONTAINED IN THE FORMS, LETTERS, AND PAPERS OF YOUR COMPANY. THIS PRODUCT IS DESIGNED AND INTENDED FOR PROFESSIONAL APPLICATION ONLY. ALL PRODUCTS SHOULD BE THOROUGHLY TESTED UNDER APPLICATION CONDITIONS PRIOR TO USE. THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE RELIABLE. HOWEVER, GEMINI MAKES NO WARRANTY CONCERNING THIS PRODUCT, WHETHER EXPRESS OR IMPLIED. INCLUDING THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES SHALL GEMINI BE LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR ANY OTHER DAMAGES FROM ALLEGED NEGLIGENCE, BREACH OR WARRANTY, STRICT LIABILITY, OR ANY OTHER LEGAL THEORY, ARISING OUT OF THE USE OR HANDLING OF THIS PRODUCT. THE SOLE REMEDY OF THE BUYER AND THE SOLE LIABILITY OF GEMINI FOR ANY CLAIMS SHALL BE LIMITED TO THE BUYER'S PURCHASE PRICE OF THE PRODUCT WHICH IS THE SUBJECT OF THE CLAIM OR THE AMOUNT ACTUALLY PAID FOR SUCH PRODUCT, WHICHEVER IS LESS. TECHNICAL ADVICE FURNISHED BY GEMINI SHALL NOT CONSTITUTE AN EXPRESS WARRANTY, WHICH IS EXPRESSLY DISCLAIMED. ALL TECHNICAL ADVICE GIVEN IS ACCEPTED AT THE RISK OF THE BUYER.