



Safety Data Sheet

HIGH SOLIDS FLAT LACQUER



1. Identification

Product identifier	HIGH SOLIDS FLAT LACQUER		
Product code	183		
Other means of identification	N/Av.		
Recommended use of the chemical and restrictions on use	PAINT.		
Manufacturer	GEMINI INDUSTRIES, INC. 2300 Holloway Drive El Reno, OK 73036 USA Tel. 1-800-262-5710 Fax 1-405-262-9310 www.gemini-coatings.com		
Emergency phone number	INFOTRAC 800-535-5053 Outside USA, Call Collect 1-352-323-3500 (French & English) 24-hour HAZMAT Response and MSDS help: EMI 800-510-8510		

2. Hazard identification

Summary	<p>DANGER! FLAMMABLE LIQUID! TOXIC! Skin, eyes and respiratory tracts irritant. May be harmful by inhalation or if absorbed through the skin. May cause central nervous system effects. Contains a substance that can cause target organ damage, according to data obtained on animals. Contains a substance that can cause cancer based on animal data. Reproductive effects in animal. Keep away from heat, sparks and open flame. Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet. Keep containers tightly closed when not in use. After use, wash hands with soap and water. Wash contaminated clothing before reuse.</p>
----------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

WHMIS 2015/OSHA HCS 2012/GHS



- Flammable liquids (Category 2)
- Skin irritation (Category 2)
- Eye irritation (Category 2A)
- Carcinogenicity (Category 2)
- Reproductive toxicity (Category 2)
- Specific target organ toxicity, single exposure, Narcotic effects (Category 3)
- Specific target organ toxicity, repeated exposure (Category 2)
- Aspiration hazard (Category 1)

DANGER

- H225: Highly flammable liquid and vapour
- H304: May be fatal if swallowed and enters airways
- H319: Causes serious eye irritation
- H315: Causes skin irritation
- H336: May cause drowsiness or dizziness
- H351: Suspected of causing cancer

H361D: Suspected of damaging the unborn child
H373: May cause damage to organs through prolonged or repeated exposure
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 and other ignition sources. No smoking.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe mist, vapours and spray.
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P281: Use personal protective equipment as required.
P301+310+331: IF SWALLOWED: Immediately call a POISON CENTER or a physician. Do NOT induce vomiting.
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water and soap or take a shower if necessary.
P332+313: If skin irritation occurs: Get medical advice or attention.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+313: If eye irritation persists: Get medical advice or attention.
P362+364: Take off contaminated clothing and wash before reuse.
P370+378: In case of fire: Use chemical foam, dry chemical or carbon dioxide to extinguish.
P403+P235+P233: Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P501: Dispose of contents and container to an approved waste disposal plant.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Xylene	1330-20-7	10 - 30 %
Toluene	108-88-3	10 - 30 %
Butyl acetate (normal)	123-86-4	10 - 30 %
Ethyl Alcohol	64-17-5	7 - 13 %
Nitrocellulose	9004-70-0	5 - 10 %
Isobutyl isobutyrate	97-85-8	3 - 7 %
Bis(2-Ethylhexyl) adipate	103-23-1	3 - 7 %
Isopropyl alcohol	67-63-0	1 - 5 %
Ethylbenzene	100-41-4	1 - 5 %
Silica - Amorphous, gel	112926-00-8	1 - 5 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Wash skin with warm water and mild soap. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. Seek medical attention immediately.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. Never give anything by mouth if victim is

	unconscious or convulsing. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	No information available.
Notes to the physician	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	dried powder, carbon dioxide (CO ₂), alcohol resistant foam, Do not use a heavy water jet.
Specific hazards arising from the chemical	NFPA: Class IB Flammable liquid. Vapours are heavier than air and may travel to an ignition source distant from the material handling point. May be ignited by heat, sparks, flame or static electricity. Do not apply to hot surfaces. Contact with strong oxidizers may cause fire. In a fire or if heated, a pressure increase will occur and the container may burst. Emits toxic fumes under fire conditions.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Water stream can scatter and spread fire. If water is used, fog nozzles are preferable. Use water spray to cool fire-exposed containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry in sewer and other enclosed area. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Remove sources of ignition. Ventilate the area well. Stay against the wind spill. Make sure you have a fire extinguisher near you. Stop leak, if it's possible to do so without risk. Use non-sparking and antistatic tools. Absorb with inert material (soil, sand, vermiculite) or wipe up or scrape up and place in an appropriate waste disposal container clearly identified. Dispose via a licensed waste disposal contractor. Finish cleaning the contaminated surface by rinsing with soapy water.

7. Handling and storage

Precautions for safe handling	Keep away from heat, sparks and open flame. Turn off all pilot lights, flames, stoves, heaters, electric motors, welding equipment and other sources of ignition. Use non-sparking and antistatic tools. Ground/bond all containers when transferring large quantities (5 gallons US or 20 L and more). Use only in well ventilated area. Avoid prolonged or repeated breathing of vapour or mists. Avoid contact with skin, eyes and clothing. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet. Keep containers tightly closed when not in use. Containers of this material may be hazardous even when empty. Since empty containers retain product residues (vapour, liquid), all hazard precautions given in this sheet must be observed. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Storage and handling should follow the NFPA 30 Flammable and/or Combustible Liquids Code and the National Fire Code of Canada (NFCC). NFPA: Class IB Flammable liquid. Store tightly closed and in properly labelled container in a dry, cool and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from oxidizing

materials and incompatible materials (see section 10).

Storage temperature 10 to 25°C (50 to 77°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Ethylbenzene: 800 ppm. Xylenes: 900 ppm. Toluene : 500 ppm. n-Butyl acetate: 1700 ppm. Isopropyl alcohol: 2000 ppm. Ethyl alcohol: 3300 ppm. Silica - Amorphous, gel: 3000 mg/m ³ .
------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Xylene	STEL	150 ppm		ACGIH , BC, ON, OSHA
		150 ppm	651 mg/m ³	AB , RSST
Toluene	TWA (8h)	100 ppm		ACGIH , BC, ON, OSHA
		100 ppm	434 mg/m ³	AB , RSST
Butyl acetate (normal)	STEL	150 ppm	560 mg/m ³	NIOSH , OSHA
	TWA (8h)	20 ppm		ACGIH , BC, ON
Ethyl Alcohol		50 ppm	188 mg/m ³	AB , RSST
		100 ppm	375 mg/m ³	NIOSH , OSHA
Isopropyl alcohol	STEL	200 ppm		ACGIH , ON
	TWA (8h)	200 ppm	950 mg/m ³	AB , NIOSH, OSHA, RSST
Ethylbenzene		20 ppm		BC
		150 ppm		ACGIH , ON
Isopropyl alcohol		150 ppm	710 mg/m ³	NIOSH , OSHA
		150 ppm	713 mg/m ³	AB , RSST
Ethyl Alcohol	STEL	1000 ppm		ACGIH , BC, ON
	TWA (8h)	1000 ppm	1880 mg/m ³	AB , RSST
Isopropyl alcohol		1000 ppm	1900 mg/m ³	NIOSH , OSHA
	STEL	400 ppm		ACGIH , BC, ON
Ethylbenzene		400 ppm	984 mg/m ³	AB
		500 ppm	1225 mg/m ³	NIOSH
Silica - Amorphous, gel		500 ppm	1230 mg/m ³	RSST
	TWA (8h)	200 ppm		ACGIH , BC, ON
Ethylbenzene		200 ppm	492 mg/m ³	AB
		400 ppm	980 mg/m ³	NIOSH , OSHA
Ethylbenzene	STEL	400 ppm	983 mg/m ³	RSST
	TWA (8h)	125 ppm	543 mg/m ³	AB , RSST
Silica - Amorphous, gel		20 ppm		ACGIH , BC, ON
		100 ppm	434 mg/m ³	AB , RSST
Silica - Amorphous, gel		100 ppm	435 mg/m ³	OSHA
	TWA (8h)	Respirable Dust	6 mg/m ³	NIOSH , RSST
		Total Dust	10 mg/m ³	ACGIH , ON

Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.
-----------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Individual protection measures

Eye	Wear safety glasses. If there is a risk of contact with eyes, wear chemical splash goggles.
Hands	In case of prolonged contact wear neoprene or nitrile gloves. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.

Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear a long-sleeved shirt. Wear synthetic apron, if necessary, to prevent repeated or prolonged contact with skin.
Respiratory	Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. In case of insufficient ventilation or in enclosed area until maximum 10 times of exposure limit, wear half mask respirator with organic vapors cartridges and fitted with a particulate filter. Use a dust particle mask when sanding.
Feet	Wear rubber boots to clean up a spill.

9. Physical and chemical properties

Physical state	Liquid	Flammability	Flammable.
Colour	White or coloured	Flammability limits	0 to 7.6%
Odour	Solvent odor	Flash point	4.4°C (39.9°F)
Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	N/Ap.	Sensibility to electrostatic charges	Yes
Melting point	N/Av.	Sensibility to sparks and/or friction	N/Av.
Freezing point	N/Av.	Vapour density	>1 (Air = 1)
Boiling point	110.6°C (231.1°F)	Relative density	0.929 kg/L (Water = 1)
Solubility	No	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	> Butyl Acetate	Decomposition temperature	N/Av.
Vapour pressure	N/Av.	Viscosity	N/Av.
Percent Volatile	79.023%	Molecular mass	N/Ap.

N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid heat, flame and sparks. Avoid contact with incompatible materials.
Incompatible materials	Strong oxidants, strong bases, mineral acids, strong acids.
Hazardous decomposition products	In combustion: nitrogen oxides, carbon oxides (CO, CO ₂).

11. Toxicological information


Numerical measures of toxicity	<p>Butyl acetate (normal) Ingestion 10768 mg/kg Rat LD50 Inhalation >32.5 mg/l/4h Rat LC50 Skin >17600 mg/kg Rabbit LD50</p> <p>Toluene Ingestion 5600 mg/kg Rat LD50 Inhalation 30.2 mg/l/4h Rat LC50 Skin 12600 mg/kg Rabbit LD50</p> <p>Xylene Ingestion 3523 mg/kg Rat LD50 Inhalation 27.6 mg/l/4h Rat LC50 Skin 3200 mg/kg Rabbit LD50</p> <p>Ethyl Alcohol Ingestion 7060 mg/kg Rat LD50 Inhalation 39 mg/l/4h Mouse LC50 Skin 20000 mg/kg Rabbit LD50</p> <p>Nitrocellulose Ingestion >5000 mg/kg Rat LD50</p> <p>Bis(2-Ethylhexyl) adipate Ingestion 9100 mg/kg Rat LD50 Inhalation >5.7 mg/l/4h Rat LC50 Skin 17297 mg/kg Rabbit LD50</p> <p>Isobutyl isobutyrate Ingestion 12800 mg/kg Rat LD50 Inhalation 48.2 mg/l/4h Rat LC50 >5000 ppm/6h Rat LC50 Skin >8600 mg/kg Rabbit LD50</p> <p>Isopropyl alcohol Ingestion 5045 mg/kg Rat LD50 Inhalation 66.1 mg/l/4h Rat LC50 Skin 6280 mg/kg Rat LD50</p> <p>Ethylbenzene Ingestion 3500 mg/kg Rat LD50 Inhalation 17.3 mg/l/4h Rat LC50 Skin 15380 mg/kg Rabbit LD50</p> <p>Silica - Amorphous, gel Ingestion 3160 mg/kg Rat LD50 Inhalation >2.08 mg/l/4h Rat LC50 Skin >2000 mg/kg Rabbit LD50</p>
Likely routes of exposure	<p>Skin, eyes, inhalation, ingestion.</p>
Delayed, immediate and chronic effects	<p>Eye contact May cause eye irritation.</p> <p>Skin contact May cause slight irritation of the skin. Prolonged and repeated contact may cause drying and cracking of the skin. Widespread contact with skin for several hours can cause harmful amounts of material to be absorbed.</p> <p>Inhalation Excessive inhalation is harmful. May cause slight upper respiratory tract irritation. High concentrations may cause central nervous system depression characterized by headache, dizziness, nausea, fatigue, drowsiness, unconsciousness. asphyxia. The severity of symptoms may vary depending on exposure conditions. Prolonged exposure may cause damage to liver, kidneys, lungs and blood forming organs.</p> <p>Ingestion May cause gastro-intestinal irritation with nausea and vomiting. Contains a substance that can cause target organ damage, according to data obtained on animals.</p> <p>IARC/NTP Classification Common name IARC NTP Ethylbenzene 2B - IARC : 1- Carcinogenic; 2A- Probably carcinogenic; 2B- Possibly carcinogenic. NTP : K- Known to be carcinogens; R- Reasonably anticipated to be carcinogens.</p> <p>Carcinogenicity Contains an ingredient possibly carcinogenic to humans (Group 2B, IARC). Ethylbenzene (CAS no. 100-41-4). The risk of cancer depends on duration and level of exposure.</p> <p>Teratogenicity This material is not known to cause teratogenic effect.</p> <p>Mutagenicity This material is not known to cause mutagenic effect.</p> <p>Reproductive toxicity Toluene present a risk of toxicity on development based on animal study. An epidemiological study (1992) has been done with women exposed only to toluene in a factory. The first group was exposed to ambient concentrations from 50 to 150 ppm and the second at concentrations from 0 to 25 ppm. Comparison with a control group</p>

	demonstrated a higher spontaneous abortions rates significantly in women exposed to higher concentrations than those of little or no exposure group. Xylene overexposure may affect fetal development in laboratory animals by inhalation during pregnancy.
Immunotoxicity	No information available.
Interactive effects	No information available for this product.
Other information	Target organs: central nervous system, kidneys, liver, lungs. blood forming organs. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. This value is not classified according to GHS. The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.


12. Ecological information

Ecological toxicity	N/Av. LC50 N/Av.
Persistence	No information available for this product.
Degradability	No information available for this product.
Bioaccumulative potential	No information available for this product.
Mobility in soil	No information available for this product.
Other adverse effects	No information available for this product.

13. Disposal considerations




Container 	Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Paint residues including lacquer, thinner, stain, shellac, varnish, polish can be reprocessed everywhere there is a recycling program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.
--------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

14. Transport information

UN Number	UN 1263
UN Proper Shipping Name	PAINT
Environmental hazards	This material is not listed as a marine pollutant.
Special precautions for user	No information available.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 3
Packing group	II
IMO/IMDG - International Maritime Transport	

Classification	Regulated UN 1263. Class 3, PG II.
IATA - International Air Transport Association	
Classification	Regulated UN 1263. Class 3, PG II.
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

15. Regulatory information

Other regulations	<p>UNITED STATE OF AMERICA:</p> <ul style="list-style-type: none"> - Toxic Substance Control Act (TSCA) : All ingredients are listed in the TSCA Inventory. - EPCRA Section 313 Toxic Chemicals: Ethylbenzene (CAS no. 100-41-4). Xylenes (CAS no. 1330-20-7). Toluene (CAS no. 108-88-3). - California Proposition 65: Contains ingredients that can cause cancer according to the state of California. Ethylbenzene (CAS no. 100-41-4). This product contains chemicals known to the State of California to cause birth defects or other reproductive harm. Toluene (CAS no. 108-88-3). <p>CANADA :</p> <ul style="list-style-type: none"> - Canada DSL and NDSL: All ingredients are listed in the Domestic Substances List (DSL). - Canadian National Pollutant Release Inventory Substances (NPRI): Ethylbenzene (CAS no. 100-41-4). Xylenes (CAS no. 1330-20-7). Toluene (CAS no. 108-88-3). n-Butyl acetate (CAS no. 123-86-4). Isopropyl alcohol (CAS no. 67-63-0). Ethyl alcohol (CAS no. 64-17-5). Bis(2-Ethylhexyl) adipate (CAS no. 103-23-1).
	<p>WHMIS 1988</p>  <p>B2 D2A D2B</p> <p>Class B2 : Flammable Liquid Class D2A : Very toxic material causing other toxic effects Class D2B : Toxic material causing other toxic effects</p> <p>HMIS</p>  <p>② Health ③ Flammability ① Reactivity ① Protective Equipment</p> <p>NFPA</p> 

16. Other information

Date (YYYY-MM-DD)	GEMINI INDUSTRIES, INC. 2014-03-26
Version	01

**Other
information**

REFERENCES:

- NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, <http://www.cdc.gov/niosh/npg/npg.html>
- IPCS INCHEM, Chemical Safety Information from Intergovernmental Organizations, Canadian Centre for Occupational Health and Safety (CCOHS), Copyright International Programme on Chemical Safety (IPCS), <http://www.inchem.org>
- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), <http://www.reptox.csst.qc.ca>
- IUCLID Chemical Dataset, European Chemical Substances Information System (ESIS), Joint Research Centre, <http://esis.jrc.ec.europa.eu>

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

HMIS: Hazardous Materials Identification System

NFPA: National Fire Protection Association

OSHA: Occupational Safety and Health Administration (USA)

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

RSST: Règlement sur la santé et la sécurité du travail (Québec)

GHS: Globally Harmonized System

IARC: International Agency for Research on Cancer

IDLH: Immediately Dangerous to Life or Health

STEL: Short Term Exposure Limit (15 min)

TWA: Time Weighted Averages

WHMIS: Workplace Hazardous Materials Information System

To the best of our knowledge, the information contained herein is accurate. However, neither Préventis System nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. 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.