MATERIAL SAFETY DATA SHEET
PREPARED BY: Environmental, Health and Safety Department

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER	U.S. COATINGS
ADDRESS	9291 Watson Industrial Park St. Louis, MO 63126
INFORMATION	314-522-9552
EMERGENCY	314-239-4703
PRODUCT DESCRIPTION	GRIPLINE 6100 BASE
PRODUCT CODE	GL6100

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

1 EPOXY RESIN REACTION PRODUCTS OF EPICHLOROHYDRIN & BISPHENOL A
Pct By Wt: 26.00

ACGIH TLV-TWA	NE	ACGIH TLV-STEL/C	NE
OSHA PEL-TWA	NE	OSHA PEL-STEL	NE
OSHA PEL-CEILING	NE	SKIN DESIGNATION	NE
ODOR THRESHOLD	NA	LD50 (INGESTION)	> 5 G/KG (ORAL-RAT)
LC50 (INHALATION)	NA	AUTOIGNITION TEMP.	NA
FLASH POINT	251 C / 485 F		

Other Limits: IARC-NO NTP-NO OSHA-NO ACGIH-NO NIOSH-NO

2 METHYL BENZENE CAS# 108-88-3 TOLUENE TOLUOL
Pct By Wt: 14.00 Vapor Pressure: 22.000 MMHG @ 68F LEL: 1.2

ACGIH TLV-TWA	50 PPM	ACGIH TLV-STEL/C	NE
OSHA PEL-TWA	100 PPM	OSHA PEL-STEL	150 PPM
OSHA PEL-CEILING	300 PPM	SKIN DESIGNATION	NO
ODOR THRESHOLD	8.0 PPM	LD50 (INGESTION)	5 G/KG (ORAL-RAT)
LC50 (INHALATION)	5320 PPM/8H (MOUSE)	AUTOIGNITION TEMP.	480 C / 896 F
FLASH POINT	7.5 C / 45 F		

Other Limits: IARC-NO NTP-NO OSHA-NO ACGIH-NO NIOSH-NO

3 EPOXY RESIN BISPHENOL-A BASED EPOXY RESIN
Pct By Wt: 7.00 LEL: 1.2

ACGIH TLV-TWA	NE	ACGIH TLV-STEL/C	NE
OSHA PEL-TWA	NE	OSHA PEL-STEL	NE
OSHA PEL-CEILING	NE	SKIN DESIGNATION	NE
ODOR THRESHOLD	NA	LD50 (INGESTION)	>5 G/KG (RAT)
LC50 (INHALATION)	NA	AUTOIGNITION TEMP.	NA
FLASH POINT	4 C / 40 F		

Other Limits: IARC-NO NTP-NO OSHA-NO ACGIH-NO NIOSH-NO

4 2-BUTANONE CAS# 78-93-3 METHYL ETHYL KETONE
Pct By Wt: 4.00 Vapor Pressure: 70.000 MMHG @ 68F LEL: 1.8

ACGIH TLV-TWA	200 PPM	ACGIH TLV-STEL/C	300 PPM
OSHA PEL-TWA	200 PPM	OSHA PEL-STEL	300 PPM
OSHA PEL-CEILING	NE	SKIN DESIGNATION	NO
ODOR THRESHOLD	2.0 PPM	LD50 (INGESTION)	2.7 G/KG (ORAL-RAT)
LC50 (INHALATION)	23.5 G/M3/8H (IHL-RAT)	AUTOIGNITION TEMP.	516 C / 960 F
FLASH POINT	-6 C / 21 F		

Other Limits: IARC-NO NTP-NO OSHA-NO ACGIH-NO NIOSH-NO

5 CAS# 28064-14-4 BISPHENOL F EPOXY RESIN
Pct By Wt: 4.00

ACGIH TLV-TWA	NE	ACGIH TLV-STEL/C	NE
OSHA PEL-TWA	NE	OSHA PEL-STEL	NE
OSHA PEL-CEILING	NE	SKIN DESIGNATION	NE
ODOR THRESHOLD	NA	LD50 (INGESTION)	4 G/KG (ORAL-RABBIT)
LC50 (INHALATION)	6 G/KG (RABBIT)	AUTOIGNITION TEMP.	NA
FLASH POINT	250 C / 482 F SETA FLASH-CLOSED CUP		

Other Limits: IARC-NO NTP-NO OSHA-NO ACGIH-NO NIOSH-NO

6 PHENYLETHANE CAS# 100-41-4 ETHYL BENZENE
Pct By Wt: 0.10 Vapor Pressure: 10.000 MMHG @ 68F LEL: 1.2

ACGIH TLV-TWA	100 PPM	ACGIH TLV-STEL/C	125 PPM
OSHA PEL-TWA	100 PPM	OSHA PEL-STEL	125 PPM
OSHA PEL-CEILING	NE	SKIN DESIGNATION	NO
ODOR THRESHOLD	NA	LD50 (INGESTION)	3500 MG/KG (ORAL-RAT)
LC50 (INHALATION)	50/G/M3/2H	AUTOIGNITION TEMP.	468 C / 810 F
FLASH POINT	15 C / 59 F		

Other Limits: IARC-YES NTP-NO OSHA-NO ACGIH-NO NIOSH-NO

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This product contains one or more reported carcinogens or suspect/experi- mental carcinogens which are noted IARC, NTP, OSHA, ACGIH or NIOSH in the Other Limits column.
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This product contains one or more Hazardous Air Pollutants (HAPs) which are regulated under Section 112 of the Clean Air Act.
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This product contains one or more reported mutagens or suspect/experimental mutagens.
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This product contains pigments which may become a dust nuisance when removed by abrasive blasting, sanding or grinding. Airborne nuisance particulates have an ACGIH TLV for Total Dust of 10 mg/M3.
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This product contains one or more reported teratogens or suspect/ experimental teratogens.
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IMPORTANT! This product may be blended with other products prior to use. Read all warnings and precautions on the MSDSs and labels of all products being blended as the combination may contain the hazards of each component.

SECTION 3 - HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS:

EYES: May cause moderate irritation, redness, tearing, and blurred vision. Can cause severe injury -- damage reversible.

SKIN: Prolonged or repeated contact can cause moderate irritation, defatting, and dermatitis. Material is readily absorbed through the skin in toxic amounts. May be a weak sensitizer. Can cause allergic skin reaction in certain individuals.

INHALATION: May cause irritation of the mucous membranes, cough, discomfort, rapid or difficult breathing or shortness of breath. Can cause CNS effects including fatigue, weakness, headache, dizziness, nausea, vomiting, unconsciousness, coma, respiratory failure and death.

INGESTION: Slightly toxic by ingestion. Can cause irritation of the digestive tract, nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

POTENTIAL CHRONIC HEALTH EFFECTS: - Prolonged and repeated breathing of vapors, spray mist and/or sanding dust over a period of years may cause diseases of the lungs. - Prolonged overexposure to crystalline silica by inhalation may cause delayed lung injury/disease (silicosis). - Reports have associated repeated and prolonged occupational overexposure to solvents with brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal. - Overexposure can cause fibrosis (silicosis): Symptoms can include coughing, difficulty breathing, tightness of chest, hemorrhage, and wheezing. - The adverse chronic health effects associated with crystalline silica include silicosis, cancer,scleroderma and tuberculosis. CARCINOGENICITY: - Ethylbenzene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. IARC has classified ethylbenzene as a possible human carcinogen.

TARGET ORGANS: Overexposure to this material or its components has been suggested as a cause of the following effects in laboratory animals and/or humans, and may aggravate pre-existing disorders of these organs in humans:

- Brain damage
- Cardiac abnormality
- Eye damage
- Kidney damage
- Liver abnormalities
- Lung damage
- Skin damage
- Spleen damage
- Respiratory system
- Central nervous system (CNS)
- Peripheral nervous system (PNS)

SECTION 4 - FIRST AID MEASURES

PRIMARY ROUTE(S) OF ENTRY (X) SKIN (X) BREATHING (X) SWALLOWING

IF IN EYES: Flush eyes with water for at least 15 minutes while holding eyelids apart; Seek medical attention.

IF ON SKIN: Remove contaminated clothing and flush contaminated skin with large amounts of water. If skin is damaged or if symptoms persist seek medical attention. Launder clothing before reuse.

IF INHALED: If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; Keep person warm and quiet. If individual is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

IF SWALLOWED: DO NOT induce vomiting unless directed to do so by medical personnel. Aspiration of material into lungs can cause chemical pneumonitis which may be fatal. If individual is drowsy or unconscious, place on their side with head down. Seek medical attention. If possible, do not leave individual unattended.

SECTION 5 - FIRE FIGHTING MEASURES

FIRE AND EXPLOSIVE PROPERTIES OF THE CHEMICAL: (Unless otherwise noted, data are derived from ingredients existing in this formula at concentrations of 1% by weight or greater,

i.e., the flashpoint given is the lowest flashpoint of the ingredients listed in section 2.)

Flashpoint	: 21.0 F -(- 6.1 C)	
Explosion Level	: Low - 1.2	
	High - 11.5	
Flammability Limits	: Lower - -N/A	
	Higher - -N/A	
Auto-ignition Temperature	: -N/A øF	

EXTINGUISHING MEDIA: Use carbon dioxide or dry chemical for small fires; alcohol-type aqueous film-forming foam or water spray for large fires. Water may be ineffective but should be used to cool fire-exposed structures and vessels.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep away from heat, sparks, and flame. Do not smoke. Extinguish all pilot lights and turn off all sources of ignition, including heaters, fans and other non-explosion proof electrical equipment, during use and until all vapors are gone. Vapors may ignite explosively. Vapors may spread long distances and beyond closed doors. Prevent build up of vapors by maintaining a continuous flow of fresh air.

FIRE-FIGHTING PROCEDURES AND EQUIPMENT: Self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. In case of fire, use Dry chemical, Foam, CO2 or other approved method for treating a Class B fire. Summon professional firefighters. During a fire, toxic gases and smoke are irritants present from decomposition/combustion. Closed container may explode when exposed to extreme heat.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

CLEAN-UP:

SMALL SPILL: Absorb liquid on inert material such as paper, vermiculite, floor absorbent, and transfer to hood.

LARGE SPILL: Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, contain area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be absorbed with inert material such as sand, clay, earth, or floor absorbent, and shoveled into containers, with non-sparking tools. Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify the proper authorities as required that a spill has occurred.

SECTION 7 - HANDLING AND STORAGE

HANDLING: SENSITIVITY TO STATIC DISCHARGE - Grounding/Bonding required

STORAGE: Keep container tight and upright to prevent leakage. Keep container closed when not in use. Do not store above 49 C/120 F. Do not transfer contents to bottles or unlabeled containers. Protect from freezing. Containers of this material may be hazardous when emptied because they retain product residues (vapor, liquid, and/or solid). When empty, may contain explosive vapors. Do not cut, puncture or weld on or near this container. All hazard precautions given in this data sheet must be observed for empty containers.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

RESPIRATORY PROTECTION/VENTILATION: Use only with adequate ventilation. Maintain continuous flow of fresh air. Do not breathe vapors, spray mists, or sanding dusts. Use air purifying respirators fitted with organic vapor/HEPA cartridges only if air monitoring of the work area demonstrates solvent and particulate levels do not exceed the respirator Maximum Use Concentration. Use only properly fitted NIOSH approved respirators. Follow respirator manufacturer's directions for use. Engineering or administrative controls should be implemented to reduce exposure. Paint spray booths, local exhaust, and general exhaust systems are advisable to minimize exposure.

PERSONAL PROTECTIVE EQUIPMENT: Use protective equipment to prevent contact with eyes, skin, or clothing. Use solvent resistant safety eyewear with splash guards. Protective garments such as nylon or Tyvek(R) coveralls typically used to protect from light overspray, splatters, etc. Saranex 23-P(R) coveralls recommended for messy applications. Nitrile or natural rubber gloves typically used to protect from minor contact. For prolonged contact, neoprene gloves are better and butyl are best.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical Appearance	: -N/A	
Odor	: -N/A	
Physical State	: -N/A	
pH	: -N/A	
Vapor Density	: -N/A	
Boiling Range	: Lower - 175.0 F 79.4 C	
	Higher - 277.2 F 136.2 C	
Freezing Point	: -N/A øF	
Melting Point	: -N/A øF	
Water Solubility	: -N/A	
Specific Gravity	: 1.448	
Formula Weight per Volume	: 12.0488 LB/GL	
VOC	: 2.261 lbs./gal. or 271 g/l	
Evaporation Rate	: .000 (n-Butyl Acetate = 1)	
Viscosity	: -N/A	
% Volatile by Weight	: 18.7689	
% Volatile by Volume	: 31.7369	
Coeff of Water-Oil Distribution	: -N/A	

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID AND INCOMPATIBILITIES: Acids, Strong mineral acids, Hydrofluoric acid, Alkanolamines, Aldehydes, Amines, Ammonia, Strong bases, Caustics, Chlorinated compounds, Epoxy hardeners under uncontrolled conditions, Oxidizing agents, This product will dissolve some plastics, rubber, and coatings, Aliphatic amines.

HAZARDOUS DECOMPOSITION PRODUCTS (Including Thermal Decomposition): Carbon dioxide and carbon monoxide, Organic acids, Acids, Aldehydes, Toxic fumes, Various hydrocarbons, Phenol and various phenolic compounds, Acrid smoke.

POLYMERIZATION: - Will not occur by itself, but masses of more than one pound of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up. - May occur at high temperatures.

STABILITY: - Stable under ordinary conditions of use and storage.

SECTION 11 - TOXICOLOGICAL INFORMATION

No additional toxicological data available. Please refer to Sections 2 & 3.

SECTION 12 - ECOLOGICAL INFORMATION

No ecological data available for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Do not incinerate closed containers.

SECTION 14 - TRANSPORT INFORMATION

DOT Hazard Class:	3	DOT Packing Group:	II
DOT Label:	Flammable Liquid	DOT Shipping Name:	Paint
DOT Placard:	Flammable	UN/NA Number:	1263

SECTION 15 - REGULATORY INFORMATION

FEDERAL REGULATIONS:

SARA 313 INFORMATION This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

ETHYL BENZENE	CAS# 100-41-4	PCT BY WT: .1020
TOLUOL	CAS# 108-88-3	PCT BY WT: 13.9190
METHYL ETHYL KETONE	CAS# 78-93-3	PCT BY WT: 4.2370

STATE REGULATIONS: PER CALIFORNIA'S PROPOSITION 65 WARNING: This product contains chemicals known to the State of California to cause birth defects or other reproductive harm. STATE REGULATIONS: PER CALIFORNIA'S PROPOSITION 65 WARNING: This product contains chemicals known to the State of California to cause cancer.

SECTION 16 - OTHER INFORMATION

FOR INDUSTRIAL USE ONLY: This product is for use by professional, trained personnel using proper equipment, and is not intended for sale to, or use by, the general public.

WARRANTY: Any recommendation of U.S. Coatings contained herein covering use, utilization, chemical or physical properties and other qualities of the products sold is believed reliable; however, U.S. Coatings makes no warranty or representation with respect thereto. Use or application of any U.S. Coatings product is at the discretion of the Buyer without liability or obligation whatsoever of U.S. Coatings.

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