

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: GlitsaMax Finish, Part A

PRODUCT CODES: C16171 Semigloss, C16181 Satin, C16191 Ultra Matte

GENERAL USE: Protective coating

PRODUCT DESCRIPTION: Aqueous polyurethane copolymer with no free isocyanate groups



MANUFACTURER'S NAME

Glitsa American, Inc.

DATE PREPARED: May 12, 2008

SUPERSEDES: New

Page 1 of 4

ADDRESS (NUMBER, STREET, P.O. BOX)

327 S. Kenyon Street

TELEPHONE NUMBER FOR INFORMATION

(206) 763-2855

(CITY, STATE AND ZIP CODE)

Seattle, WA 98108

COUNTRY

USA

EMERGENCY TELEPHONE NUMBER

Chemtrec (800) 424-9300 Outside USA (703) 527-3887

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Clear to moderately hazy liquid, prolonged contact may cause skin & eye irritation. Ingestion may cause gastric distress. Hazard symbols for this product - Xi. Risk Phrases - R36/38

POTENTIAL HEALTH EFFECTS

INHALATION: High concentrations are irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting and malaise.

SKIN: Brief contact may cause slight irritation; prolonged contact may cause moderate reddening, swelling and possible necrosis.

EYES: Contact causes severe irritation and pain associated with redness and swelling of the conjunctiva.

INGESTION: Moderately toxic; may cause headache, dizziness, diarrhea and general weakness; large doses may result in red blood cell hemolysis.

CARCINOGENICITY

NTP?

No

IARC MONOGRAPHS?

No

OSHA REGULATED?

No

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| HAZARDOUS COMPONENTS | CAS # | EINECS # | %(by weight) | OSHA PEL | | ACGIH TWA | | RQ LBS |
|---------------------------------------|-----------|-----------|------------------|----------|-----------------|-----------|-------|-----------|
| | | | | PPM | MG/M3 | PPM | MG/M3 | |
| 1-Methyl-2-pyrrolidone (a,*) | 872-50-4 | 212-828-1 | 1 - 5 | * 100 | | | | |
| Ethylene glycol monopropyl ether (a) | 2807-30-9 | 220-548-6 | 1 - 5 | | not established | | | |
| Diethylene glycol monobutyl ether (a) | 112-34-5 | 203-961-6 | 1 - 5 | | not established | | | |

The remaining components of this product are non-hazardous or are in small enough quantities as to not meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product.

(a) See Section 15

(*) The ACGIH Time Weighted Average (TWA) has not been established nor has OSHA established the Permissible Exposure Limit (PEL) for this product, therefore the limits described have been established as guidelines by the manufacturer.

(b) Indicates an employee's skin exposure shall be prevented or reduced to the extent necessary in the circumstances through the use of gloves, coveralls, goggles, or other appropriate equipment.

| | | | |
|---|--|--|--|
| MATERIAL SAFETY DATA SHEET | | | |
| PRODUCT NAME: GlitsaMax Finish, Part A May 12, 2008 | | | Page 2 of 4 |
| SECTION 4 - FIRST AID MEASURES | | | |
| INHALATION: Remove affected person to fresh air; provide oxygen if breathing is difficult; if affected person is not breathing, administer CPR and seek emergency medical attention. | | | |
| SKIN: Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention. | | | |
| EYES: Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention. | | | |
| INGESTION: Give two glasses of water for dilution; Do not induce vomiting; never give anything by mouth to an unconscious person; seek medical attention. | | | |
| SECTION 5 - FIRE FIGHTING MEASURES | | | |
| FLASH POINT (METHOD USED) 175° F (79.4° C) Setaflash | | FLAMMABLE LIMITS AUTOIGNITION TEMPERATURE: Not determined | LEL: Not determined UEL: Not determined NFPA CLASS: IIA |
| GENERAL HAZARDS: Product is combustible. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide. | | | |
| EXTINGUISHING MEDIA Carbon dioxide, water, water fog, dry chemical, chemical foam | | | |
| FIRE FIGHTING PROCEDURES Self - contained respiratory equipment; cool containers to prevent pressure buildup and possible explosion when exposed to extreme heat. Caution - material is combustible! | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS Closed containers can explode due to buildup of pressure when exposed to extreme heat. | | | |
| HAZARDOUS COMBUSTION PRODUCTS Smoke, fumes, oxides of carbon, hydrocarbons. | | | |
| SECTION 6 - ACCIDENTAL RELEASE MEASURES | | | |
| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: COMBUSTIBLE. Evacuate and ventilate area; confine and absorb into absorbent; place material into approved containers for disposal; refer to SARA Title III, Section 313 40 CFR 372 for details concerning reporting requirements. Do not discharge into lakes, ponds, streams or public waters. | | | |
| SECTION 7 - HANDLING AND STORAGE | | | |
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: This material is combustible. It should be stored in tightly closed containers in a cool, well ventilated area. Vapor may form explosive mixtures in air. All sources of ignition should be controlled. Keep this and other chemicals out of reach of children. Avoid inhaling concentrated fumes or vapors. | | | |
| SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION | | | |
| ENGINEERING CONTROLS | | | |
| The use of local exhaust ventilation is recommended to control emissions near the source. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment. See Section 2 for Component Exposure Guidelines. | | | |
| PERSONAL PROTECTION: | | | |
| RESPIRATORY PROTECTION (SPECIFY TYPE): None required while threshold limits (Section 2) are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations. | | | |
| PROTECTIVE GLOVES: Neoprene or rubber gloves with cuffs. | | | |
| EYE PROTECTION: Protective eyeglasses or chemical safety goggles. Refer to 29 CFR 1910.133 or European Standard EN166. | | | |
| OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls, apron, or other equipment should be worn to minimize skin contact. | | | |
| WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general. | | | |

| | | | | |
|---|-----------|--|---|---|
| MATERIAL SAFETY DATA SHEET | | | | |
| PRODUCT NAME: GlitsaMax Finish, Part A May 12, 2008 | | | | Page 3 of 4 |
| SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES | | | | |
| APPEARANCE AND ODOR Clear to moderately hazy liquid, mild odor | | VAPOR DENSITY (AIR = 1) > 1 | | |
| SPECIFIC GRAVITY (WATER = 1) 1.044 | | EVAPORATION RATE (Water = 1) < 1 | | |
| SOLUBILITY IN WATER Emulsifies | | % VOLATILE (BY WEIGHT) Not specified | | |
| pH 7.5 - 8.5 | | VAPOR PRESSURE 17 mm Hg @ 20° C | | |
| BOILING POINT 212° F (100° C) | | FREEZING POINT 32° F (0° C) | | |
| VISCOSITY Not specified | | VOLATILE ORGANIC COMPOUNDS (VOC's) 326 gm / liter (resin / crosslink mixture - 336 gm / liter) | | |
| SECTION 10 - STABILITY AND REACTIVITY | | | | |
| STABILITY UNSTABLE: _____ STABLE: <input checked="" type="checkbox"/> | | CONDITIONS TO AVOID: Extreme temperatures, open flames. At 212° F (100° C) phase separation, possible coagulation. | | |
| INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, strong acids | | | | |
| HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced. | | | | |
| HAZARDOUS POLYMERIZATION MAY OCCUR: _____ WILL NOT OCCUR: <input checked="" type="checkbox"/> | | CONDITIONS TO AVOID: None | | |
| SECTION 11 - TOXICOLOGICAL INFORMATION | | | | |
| Hazardous Ingredients | CAS # | EINECS # | LD50 of Ingredient (Specify Species and Route) | LC50 of Ingredient (Specify Species) |
| 1-Methyl-2-pyrrolidone (a,*) | 872-50-4 | 212-828-1 | 3914 mg / kg Oral - rat | Not established |
| Ethylene glycol monopropyl ether (a) | 2807-30-9 | 220-548-6 | 3089 mg / kg Oral - rat | 2132 ppm / 6H Inhalation - rat |
| Diethylene glycol monobutyl ether (a) | 112-34-5 | 203-961-6 | 7292 mg / kg Oral - rat | Not established |
| | | | | |
| | | | | |
| | | | | |
| (a) See Section 15 | | | | |
| SECTION 12 - ECOLOGICAL INFORMATION | | | | |
| No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant. | | | | |
| SECTION 13 - DISPOSAL CONSIDERATIONS | | | | |
| WASTE DISPOSAL METHOD: Dispose of in accordance with Local, State, and Federal Regulations. This product may produce hazardous vapors or fumes in a closed disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. Do not flush to sanitary sewer or waterway. | | | | |
| SECTION 14 - TRANSPORT INFORMATION | | | | |
| PROPER SHIPPING NAME: Not Regulated | | | | |
| DOT HAZARD CLASS / Pack Group: Not regulated REFERENCE: Not Applicable UN / NA IDENTIFICATION NUMBER: None LABEL: None Required HAZARD SYMBOLS: None | | IATA HAZARD CLASS / Pack Group: Not regulated IMDG HAZARD CLASS: Not regulated RID/ADR Dangerous Goods Code: Not regulated UN TDG Class / Pack Group: Not regulated Hazard Identification Number (HIN): None | | |
| Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EC, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping. | | | | |

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: GlitsaMax Finish, Part A
May 12, 2008

Page 4 of 4

SECTION 15 - REGULATORY INFORMATION

TSCA (Toxic Substance Control Act)

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

SARA TITLE III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories

Delayed health, immediate health

313 Reportable Ingredients:

(a) Indicates a toxic chemical subject to annual reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CERCLA (Comprehensive Response Compensation and Liability Act)

None

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

There is a chemical present (1-Methyl-2-pyrrolidone) known to the state of California to cause cancer or reproductive toxicity.

CPR (Canadian Controlled Products Regulations)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. WHMIS Classification: D2

IDL (Canadian Ingredient Disclosure List)

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 2.

DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)

Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

EINECS (European Inventory of Existing Commercial Chemical Substances)

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

EC Risk Phrases

R36/38 Irritating to eyes and skin.

SYMBOL(S) REQUIRED FOR LABEL

Irritant



EC Safety Phrases

S2 Keep out of the reach of children.
S24/25 Avoid contact with skin and eyes.

SECTION 16 - OTHER INFORMATION

No specific notes.

HMIS HAZARD RATINGS

HEALTH

2*

* = Chronic Health Hazard

2 = MODERATE

FLAMMABILITY

2

0 = INSIGNIFICANT

3 = HIGH

PHYSICAL HAZARD

0

1 = SLIGHT

4 = EXTREME

PERSONAL PROTECTIVE EQUIPMENT

C

Safety Glasses, Gloves, Apron

REVISION SUMMARY:

This MSDS has been revised in the following sections:
No changes noted

MSDS Prepared by:

Comprehensive Data Base, Inc.

P.O. Box 686

Seffner, FL 33583 USA

(863) 644 - 3298 www.compdatabase.com or www.msds.cc

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.