MATERIAL SAFETY DATA SHEET DATE OF PRINTING: SECTION I MANUFACTURER: GLYPTAL, INC. 305 EASTERN AVE CHELSEA, MA 02150 TELEPHONE: 617-884-6918 PRODUCT CLASS: ADHESIVE CEMENT CODE IDENTIFICATION: 1276 ... TRADE NAME: GLYPTAL HMIS 230 Adhesive, 3, Unil33 PG-IF SECTION II - HAZARDOUS INGREDIENTS PERCENT ACGIH TLV DSHA PEL BY WEIGHT PPM mg/cu.m. PPM mg/cu.m. 35.7 1000 N.A CAS NUMBER 141-78-6 HMIS HEALTH=2 FLAMMABILITY=3 REACTIVITY=0 ETHYL ACETATE 23.8 CAS NUMBER 9004-70-0 HMIS HEALTH=2 FLAMMABILITY=3 REACTIVITY=2 CELLULOSE NITRATE 10.2 400 400 CAS NUMBER 67-63-0 4.1 100 100

N/A

200

HMIS HEALTH=2 FLAMMABILITY=3 REACTIVITY=0 OXYGENATED HYDROCARBON MIXTURE . IPA DIBUTYL PHTHALATE CAS NUMBER 84-74-2 HMIS HEALTH=2 FLAMMABILITY=0 REACTIVITY=0 DIBUTYL PHTHALATE TOLUENE CAS NUMBER 108-88-3 HMIS HEALTH=2 FLAMMABILITY=3 REACTIVITY=0

HMIS 2 3 0

INGREDIENT

ETHYL ACETATE

NITROCELLULOSE

ISOPROPYL ALCOHOL

TOLUENE ETHYL ALCOHOL 4.1 1000 CAS NUMBER 64-17-5 HMIS HEALTH=2 FLAMMABILITY=3 REACTIVITY=0 ETHYL ALCOHOL METHL ETHYL KETONE 1.8 200

CAS NUMBER 78-93-3 HMIS HEALTH=2 FLAMMABILITY=3 REACTIVITY=0 METHYL ETHYL KETONE

Remaining 15.6 % is a non-hazardous alkyd resin. N/A MEANS NOT AVAILABLE N/EST MEANS NOTESTABLISHED NOT EST. means NOT ESTABLISHED NOT EST. means NOT ESTABLISHED

N/A MEANS NOT AVAILABLE NOT EST MEANS NOT ESTABLISHED

SECTION III - PHYSICAL DATA

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BOILING RANGE: 132.1 TO 232.0 F VAPOR DENSITY: HEAVIER THAN AIR

EVAPORATION RATE: SLOWER THAN ETHER

PERCENT VOLATILE BY VOLUME: 69.7 VOC (less water): 5.02 LB5/GAL

WEIGHT PER GALLON: 8.97 POUNDS

V.O.C.Is determined per EPA Reference method 24 using ASTM procedures D2369 .D1475 and D 3960.

VAPOR PRESSURE: 45.54 mm/hg MELTING POINT: N/A

SOLUBILITY IN WATER: NEGLIGIBLE

APPEARANCE AND ODOR: CLEAR

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

OSHA CATEGORY: FLAMMABLE

FLASH POINT : 22F CC-PM LEL: .47 UEL: N/A

EXTINGUISHING MEDIA:

Carbon dioxide, dry chemical or foam

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Pressure may build up in closed containers that are exposed to heat. Solvent vapors are heavier than air and may travel a considerable

distance along the ground to an ignition source and "flash back".

SPECIAL FIRE FIGHTING PROCEDURES:

Water may be ineffective, however, water may be used to cool closed containers that are exposed to heat. Firefighting personnel should wear self-contained breathing apparatus.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

PRIMARY ROUTE(S) OF ENTRY:

Inhalation and skin contact

EFFECTS OF OVEREXPOSURE:

Headache, nausea, dizziness, confusion, irritability.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Respiratory difficulties or preexisting skin sensitization.

CARCINOGENICITY:

None of the components of this product are reported carcinogens in A/C with OSHA, NTP, IARC and NIOSH.

EMERGENCY FIRST AID PROCEDURES:

INHALATION: Remove to fresh air. Administer artificial respiration or oxygen if breathing is difficult.

SKIN: Wash affected area with soap and water. Remove and launder contaminated clothing. Consult a physician if irritation persists.

. EYES: Flush immediately with large amounts of water for at least 15 minutes. Take to a physician for medical treatment.

INGESTION: Call a physician immediately.

While this material has a low degree of toxicity, breathing high concentrati ons of vapors or mists may cause irritation of the nose and throat.respirat ory symptoms associated with pre-existing lung disorders may be aggravated by exposure to this material. Persons with pre-existing heart disorders may be more susceptible to irregular heartbeats if exposed to high concentration

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ns of this material. Reports have associated repeated and prolonged occupational over-exposure to solvents with permanent brain and nervous system damage.

SECTION VI - REACTIVITY DATA

STABILITY: NORMALLY STABLE

CONDITIONS TO AVOID:

None known

INCOMPATIBILITY (Materials to avoid)

Strong acids and bases

HAZARDOUS DECOMPOSITION PRODUCTS:

BY FIRE: Normal products of incomplete combustion.

HAZARDQUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID:

None known

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Provide adequate ventilation. Remove all possible ignition sources.

Absorb and dispose using non-sparking tools.

Eliminate all sources of ignition. Evacuate unprotected personnel. Water spray may be used. To contain run-off, cover with an absorbent material and place in containers for proper disposal. Flush area with water to remove residue.

WASTE DISPOSAL METHOD:

Dispose in accordance with local applicable regulations.

Dispose of using an approved incineration process or in accordance with local, state, and federal regulations regarding health and pollution.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

In outdoor or open areas use Bureau of Mines approved mechanical filter respirator to remove solid airborne particulates of overspray. Indoors, where ventilation is inadequate. use Bureau of Mines approved chemical-mechanical respirators designed to remove both particulate and vapor.

VENTILATION:

PROTECTIVE GLOVES:

Recommended if skin contact is likely.

EYE PROTECTION:

Chemical splash goggles recommended if potential for splash or eye contact is likely.

OTHER PROTECTIVE EQUIPMENT:

Recommended as needed to avoid contact.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING OR STORING:

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Store in a cool dry place away from heat, sparks and open flame. Keep containers closed and upright to prevent leakage. Outside or detached storage is preferred. Inside storage should be in a standard flammable liquid storeroom or cabinet. Metal containers should be grounded when transferring material from one container to another. Do not reuse product container for any purpose.

OTHER PRECAUTIONS:

PREPARED BY: TECHNICAL STAFF

REFERENCE DATE:

7/28/06

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CORRECT. HOWEVER, NO GUARANTEE OR WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, IS MADE WITH RESPECT TO THE INFORMATION ABOVE.

TO WHOM IT MAY CONCERN: EFFECTIVE JAN 1, 1989, WE ARE REQUIRED BY SARA TIT LE III SECTION 313 OF THE RIGHT TO KNOW LEGISLATION, TO INFORM YOU OF THE PERCENTAGE OF ANY INGREDIENT IN A PRODUCT WHICH IS IN THE 313 LIST OR AS AN LISTING AS A COMPONENT OF A MATERIAL WHICH IS IN A CATEGORY OF CHEMICAL LIST.

PRODUCT: 1276 GLYPTAL

10.2% OXYGENATED HYDROCARBON MIXTURE (CAS # 67-63-0)

1.8% METHYL ETHYL KETONE (CAS # 78-93-3)

4.8% DI BUTYL PHTHALATE (CAS # 84-74-2)

4.1% TOLUENE (CAS #108-88-3)

IF YOU WILL MULTIPLY YOUR TOTAL PURCHASES FROM US AS WELL AS FROM OTHER SU PPLIERS BY THE PERCENTAGE OF EACH INGREDIENT FOUND IN EACH PRODUCT AND IF THE TOTAL QUANTITY EXCEEDS THE REPORTABLE QUANTITY FOR THAT INGREDIENT YOU ARE REQUIRED TO FILE FORM R REPORTS.