

MATERIAL SAFETY DATA SHEET
 PREPARED BY: Environmental, Health and Safety Department
 MSDS PREPARATION DATE: 05-12-98

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER U.S. PAINT CORPORATION
 ADDRESS 831 S. 21st Street
 St. Louis, MO 63103-3092
 INFORMATION 314-621-0525
 EMERGENCY CHEMTREC 800-424-9300 OR 703-527-3887
 PRODUCT CLASS MODIFIED THERMAL PLASTIC RESIN
 TRADE NAME AWLGRIP® AWLSTAR™ ANTI-FOULING GOLD LABEL
 PRODUCT CODE MEDIUM GREEN
 BP401

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

1 CAS# 1317-39-1 CUPROUS OXIDE
 PCT BY WT: 47.0000
 EXPOSURE LIMIT:
 ACGIH TLV-TWA 1 MG/M3 (AS COPPER)
 ACGIH TLV-STEL/C NE
 OSHA PEL-TWA 1 MG/M3 (AS COPPER)
 OSHA PEL-STEL NE
 OSHA PEL-CEILING NE
 SKIN DESIGNATION NE
 LD50 (INGESTION) NA
 LC50 (INHALATION) NA
 AUTOIGNITION TEMP. NA
 OTHER LIMITS: IARC-NO NTP-NO OSHA-NO

2 DIMETHYL BENZENE CAS# 1330-20-7 XYLENE XYLLOL
 PCT BY WT: 9.0000 VAPOR PRESSURE: 5.100 MMHG @ 20C LEL 1.10
 EXPOSURE LIMIT:
 ACGIH TLV-TWA 100 PPM
 ACGIH TLV-STEL/C 150 PPM
 OSHA PEL-TWA 100 PPM
 OSHA PEL-STEL 150 PPM
 OSHA PEL-CEILING NE
 SKIN DESIGNATION NO
 ODOR THRESHOLD 0.05 PPB
 LD50 (INGESTION) 4.3 G/KG (ORAL-RAT)
 LC50 (INHALATION) 5000 PPM/4H (RAT)
 AUTOIGNITION TEMP. 530 C / 986 F
 FLASH POINT 27 C / 80 F
 OTHER LIMITS: IARC-NO NTP-NO OSHA-NO ACGIH-NO NIOSH-NO

3 1-BUTANOL CAS# 71-36-3 N-BUTYL ALCOHOL
 PCT BY WT: 11.0000 VAPOR PRESSURE: 4.400 MMHG @ 20C LEL 1.40
 EXPOSURE LIMIT:
 ACGIH TLV-TWA NE
 ACGIH TLV-STEL/C 25 PPM CEILING (PROPOSED)
 OSHA PEL-TWA NE
 OSHA PEL-STEL NE
 OSHA PEL-CEILING 50 PPM
 SKIN DESIGNATION YES
 ODOR THRESHOLD NA
 LD50 (INGESTION) 2.4 G/KG (ORAL-RAT)
 LC50 (INHALATION) > 8520 PPM/6H
 AUTOIGNITION TEMP. 355 C / 670 F
 FLASH POINT 36 C / 97 F
 OTHER LIMITS: IARC-NO NTP-NO OSHA-NO ACGIH-NO NIOSH-NO

4 ZINC COMPOUND CAS# 1314-13-2 ZINC OXIDE
 PCT BY WT: 12.0000
 EXPOSURE LIMIT:
 ACGIH TLV-TWA 5 MG/M3
 ACGIH TLV-STEL/C 10 MG/M3 (DUST)
 OSHA PEL-TWA 5 MG/M3 (RESPIRABLE)
 OSHA PEL-STEL 10 MG/M3
 OSHA PEL-CEILING NE
 SKIN DESIGNATION NE
 ODOR THRESHOLD NA
 LD50 (INGESTION) 8.0 G/KG (ORAL-MOUSE)
 LC50 (INHALATION) 2.5 MG/M3 (IHL-MOUSE)

AUTOIGNITION TEMP. NA
 FLASH POINT NA
 OTHER LIMITS: IARC-NO NTP-NO OSHA-NO

 This product contains one or more reported mutagens or suspect/experimental mutagens. This product contains no chemicals listed in the NTP Annual Report on Carcinogens, the IARC Monographs, listed by ACGIH, NIOSH or regulated as a carcinogen by OSHA. 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. This product contains one or more reported teratogens or suspect/experimental teratogens.

SECTION 3 - HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS:
 EYES May cause severe irritation; symptoms include: stinging, tearing, redness, swelling and eye damage. May cause burns.
 SKIN Prolonged or repeated contact can cause moderate irritation, defatting, and dermatitis. Can be absorbed through the skin, and may contribute to symptoms of toxicity from other routes of exposure. Sensitizer - Can cause allergic skin reaction which may be severe in certain individuals. Persons with pre-existing skin disorders may be more susceptible to the effects of this material.
 INHALATION Can cause nasal and respiratory tract irritation. Inhalation of excessive quantities of fume may cause "metal fume fever". Symptoms include headache, fever, chills, muscle aches, nausea, vomiting, weakness and tiredness. Can cause CNS effects including fatigue, weakness, headache, dizziness, nausea, vomiting, unconsciousness, coma, respiratory failure and death. Respiratory systems associated with pre-existing lung disorders (e.g., asthma-like conditions) may be aggravated by exposure to this material. Mildly toxic by inhalation. Prolonged exposure can cause hearing impairment.
 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.
 - 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.
 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:
 Anemia, Blood disorders, Cardiac abnormality, Eye damage, Kidney damage, Liver abnormalities, Lung damage, Menstrual and fertility disorders, Nervous system damage, Skin damage, Respiratory system

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.)

Flammability Classification: 1C DOT: FLAMMABLE LIQUID
Flashpoint: 80.00 °F Explosion Level: Low -
1.10 High - 11.20
Flammability Limits: Lower - -N/A Higher - -N/A Auto-ignition
Temperature: -N/A °F

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

VENTILATION/RESPIRATORY PROTECTION:

Use only with adequate ventilation. Maintain continuous flow of fresh air. Do not breathe vapors, spray mists, or sanding dusts. Wear appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor and particulate levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Engineering or administrative controls should be implemented to reduce exposure. Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

PERSONAL PROTECTIVE EQUIPMENT:

Do not get in eyes, on skin, or on clothing. Use solvent resistant safety eyewear with splash guards. Solvent impermeable gloves, clothing and boots should be worn to prevent skin contact.

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 - 10.00°F Higher
- 604.00°F
Freezing Point: -N/A °F Melting Point: -N/A °F
Water Solubility: -N/A Specific Gravity: 1.9700
Formula Weight per Volume: 16.39660 LB/GL LB VOC: 3.29 lbs./gal. or 394
g/l
Evaporation Rate: .0000 (n-Butyl Acetate = 1 Viscosity: -N/A
% Volatile by Weight: 20.090 % Volatile by Volume: 47.301
Coeff of Water-Oil Distribution: -N/A

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID AND INCOMPATIBILITIES: Acids, Strong mineral acids, Acetylene, Bases, Bromates, Chlorinated compounds, Chlorates, Hydrogen peroxide, Hydrazinium nitrate, Iodates, Metal compounds and surface active materials, Oxidizing agents, Ethylene oxide, Reducing agents, Zinc oxide and magnesium can react explosively when heated.

HAZARDOUS DECOMPOSITION PRODUCTS (Including Thermal Decomposition): Carbon dioxide and carbon monoxide, Copper fumes, Toxic fumes, Various hydrocarbons, Hydrogen chloride, Nitrogen oxides, Toxic fumes of sulfur oxides, Sulfur

POLYMERIZATION: Will NOT occur.

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: III
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:

COPPER	CAS# 7440-50-8	PCT BY WT: 40.1480
XYLENE	XYLOL CAS# 1330-20-7	PCT BY WT: 9.0630
N-BUTYL ALCOHOL	CAS# 71-36-3	PCT BY WT: 10.7280
ZINC OXIDE	CAS# 1314-13-2	PCT BY WT: 12.4430

SECTION 16 - OTHER INFORMATION

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.

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. Paint contained herein covering use, utilization, chemical or physical properties and other qualities of the products sold is believed reliable; however, U.S. Paint makes no warranty or representation with respect thereto. Use or application of any U.S. Paint product is at the discretion of the Buyer without liability or obligation whatsoever of U.S. Paint except as expressly warranted or represented in U.S. Paint's published LIMITED WARRANTY.

THE INFORMATION CONTAINED HEREIN IS INFORMATION RECEIVED FROM OUR RAW MATERIAL SUPPLIERS AND OTHER SOURCES AND IS BELIEVED TO BE RELIABLE. THIS DATA IS NOT TO BE TAKEN AS A WARRANTY OR REPRESENTATION FOR WHICH U.S. PAINT CORPORATION ASSUMES LEGAL RESPONSIBILITY.