Wilsonart International

MSDS Number: 16419 Wilsonart® H20 Adhesive Page 1 of 5



Revision Date: 01/08/10 Revision No: 19

PRODUCT AND COMPANY IDENTIFICATION

Common Name: Wilsonart® H20 Adhesive

WILSONART INTERNATIONAL, INC. Manufacturer:

P. O. BOX 6110 - 2400 WILSON PLACE

TEMPLE, TX 76503

INFORMATION PHONE: 800-433-3222 (USA)

Trade Name: H20 Adhesive or WA H20 Waterborne Contact Adhesive

Material Uses: Adhesive for laminate

In Case of Emergency Contact CHEMTREC: 800-424-9300 (USA)

703-527-3887 (INTERNATIONAL)

2 HAZARDS IDENTIFICATION

Route of Entry: Skin, eyes, inhalation, ingestion.

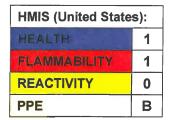
Target Organs: None.

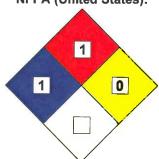
1

Skin Contact: May cause skin irritation. Eye Contact: May cause eye irritation.

Inhalation: Breathing vapors may cause irritation to the respiratory tract.

Ingestion: Not an expected route of entry. If ingested it may cause irritation to the gastro-intestinal tract.





NFPA (United States): WHMIS (Canada): Not classified as hazardous

3 **COMPOSITION/INFORMATION ON INGREDIENTS**

| Name | CAS# | % by Weight |
|--|---------------|-------------|
| Water | 7732-18-5 | 40 – 50 |
| Polychloroprene | 9010-98-4 | 30 - 40 |
| Resin Dispersion | Not Available | 20 – 40 |
| Zinc Oxide | 1314-13-2 | 1 – 3 |
| Resin Acid & Rosin Acid in Sodium and Potassium form | Not Available | < 5 |

4 **FIRST AID MEASURES**

Skin Contact: Remove contaminated clothing and wash affected areas with soap and water. If irritation develops, seek medical attention.

Eye Contact: Flush eyes with water for 15 minutes. Remove contact lenses prior to water flush. Seek medical attention.

Wilsonart International

MSDS Number: 16419 Page 2 of 5

Wilsonart® H20 Adhesive

Revision No: 19

Inhalation: Remove patient to fresh air. If patient is having difficulty breathing, seek immediate medical attention. If not breathing, clear airway and start mouth-to-mouth artificial respiration (or use bag-mask respirator). Seek immediate medical attention.

Ingestion: DO NOT induce vomiting. Seek immediate medical attention. DO NOT give anything by mouth to an unconscious person.

FIRE FIGHTING MEASURES

Flash Point: Not Applicable.

Flash Point Method: Not Applicable. Autoignition Temp.: Not Applicable.

Burning Rate: Material is not flammable. Dry adhesive will burn.

Flammability Classification: Not Applicable.

Firefighting Equipment: Use self-contained breathing apparatus (SCBA) with a full-face piece and pressure demand or other positive-pressure mode and protective gear appropriate for surrounding materials. In case of

fire, use water, dry chemical, CO₂, or alcohol foam extinguishing media.

Hazardous Products of Combustion: Carbon Oxides (CO and CO2) and various Hydrocarbons.

6 **ACCIDENTAL RELEASE MEASURES**

Personal Precautions: Wear appropriate PPE. Make sure area is well ventilated. Spilled adhesive may be slippery.

Environmental Precautions: Keep out of sewers and drains.

Clean-up Methods: Dike and contain spill. Absorb spilled product with vermiculite, dry sand, or earth. Place in a suitable non-leaking container and tightly seal for disposal.

HANDLING AND STORAGE

Handling Precautions: Wear appropriate PPE. If used indoors, make sure to provide adequate ventilation to prevent vapor build-up. Avoid breathing of vapors.

Storage Requirements: Store in a cool, dry, well-ventilated area. Avoid freezing temperatures. Minimize contact with atmospheric air to prevent inoculation with microorganisms.

EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use in a well ventilated area. Ensure that a working eyewash and safety shower are in the work area.

Protective Equipment: Wear safety glasses with side shields, and neoprene or rubber gloves.

Exposure Guidelines / Other:

Product Name Exposure Limits

Zinc Oxide (1314-13-2) TWA 5 mg/m³ (fume) TWA 15 mg/m³ (total dust) OSHA PEL:

TWA 5 mg/m³ (respirable dust)

TWA 2 mg/m³ ACGIH TLV: STEL 10 mg/m³

Consult local authorities and local regulations for exposure limits.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White mobile liquid

Physical State: Liquid

Autoignition Temp.: Not Applicable

Flash Point: Not Applicable

Molecular Weight: Not Applicable

pH: 10 – 12

Odor: Slight Ammonia

Boiling Point: Similar to water

Freezing / Melting Point: Similar to water

Percent Volatile: Not Available

Solubility: Soluble in Water

Wilsonart International

Wilsonart® H20 Adhesive

Revision Date: 01/08/10 Revision No: 19

Specific Gravity / Density: 1.09 (~ 9.1 lb/gal)

Vapor Pressure: Equivalent to water

VOC: < 20 g/L

Page 3 of 5

MSDS Number: 16419

Vapor Density: Equivalent to water

Viscosity: ~ 600 Cps

10 STABILITY AND REACTIVITY

Stability: Product is stable as supplied.

Conditions to Avoid: Freezing and boiling temperatures.

Materials to Avoid (incompatibility): Strong acids, strong bases, copper and copper alloys. Hazardous Decomposition Products: Carbon Oxides (CO and CO2) and various Hydrocarbons.

Hazardous Polymerization: Will not polymerize.

TOXICOLOGICAL INFORMATION

Toxicity to Animals: This product has not been tested for animal effects. This product is not expected to be toxic to animals.

Toxicity to Humans: This product has not been tested for human effects. This product is not expected to be toxic to humans.

Acute Toxicity to Humans: No additional information. Chronic Toxicity on Humans: No additional information.

Carcinogenic Effects: No additional information. Mutagenic Effects: No additional information. Teratogenic Effects: No additional information. Developmental Toxicity: No additional information.

12 **ECOLOGICAL INFORMATION**

Ecotoxicity: Not Available. BOD5 and COD: Not Available. Biodegradable / OECD: Not Available.

Mobility: Not Available.

Toxicity of the Products of Biodegradation: Not Available.

Special Remarks on the Products of Biodegradation: Not Available.

13 **DISPOSAL CONSIDERATIONS**

Absorb spilled product with vermiculite, dry sand, or earth and allow to solidify. Dispose of solid material in a suitable container.

Dispose of in accordance with Federal, State, and local regulations.

14 TRANSPORT INFORMATION

Restrictions: None known.

DOT Requirements: Not a DOT controlled material (United States).

DOT Classification: Adhesive Resin Compound.

Markings: None.

Packaging Requirements: Keep from freezing.

ADR Requirements: Not an ADR controlled material (Europe).

IMDG Requirements: Not an IMDG controlled material. IATA Requirements: Not an IATA controlled material. Marine Pollutant: Not expected to be a marine pollutant.

Wilsonart International

MSDS Number: 16419 Page 4 of 5

Wilsonart® H20 Adhesive

Revision Date: 01/08/10 Revision No: 19

15

REGULATORY INFORMATION

U.S. Federal Regulations

| Chemical (& CAS Number) | SARA 302 | SARA 304 | SARA 313 | CERCLA | CAA 112(r) | RCRA |
|-------------------------|----------|----------|------------|--------|------------|------|
| | (EHS)TPQ | (EHS)Rq | de minimis | Rq | TQ | Code |
| None | | | | | | |

All quantities in pounds

State Regulations

| Chemical (& CAS Number) | | MA | MN | NJ | PA | RI |
|-------------------------|---------|-----|-----|-----|-----|-----|
| | Prop 65 | RTK | RTK | RTK | RTK | RTK |
| Zinc Oxide (1314-13-2) | | X | Х | Х | X | Х |

International Regulations

DSL (Canada): The chemicals in this product are listed.

EINECS: The chemicals in this product are listed.

WHMIS: Not classified as hazardous.

16

OTHER INFORMATION

References

Lewis, R. J., Rapid Guide to Hazardous Chemicals in the Workplace, 4th ed., Wiley-Interscience, New York, 2000.

NIOSH Pocket Guide to Chemical Hazards, Department of Health and Human Services, National Institute for Occupational Safety and Health, 2004.

Patty's Toxicology, 5th ed. John Wiley & Sons, Inc. 2001.

TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Agents, ACGIH Worldwide, Cincinnati, 2007.

Glossary

ACGIH – American Conference of Governmental Industrial Hygienists

ASTM – American Society for Testing and Materials

ADR – Agreement on Dangerous Goods by Road (Europe)

BOD5 - Biological Oxygen Demand in 5 days

CAA - Clean Air Act

CAS - Chemical Abstracts Services

CEPA – Canadian Environmental Protection Act

CERCLA - Comprehensive Environmental Response, Compensations, and Liability Act

CFR - Code of Federal Regulations

CL - Ceiling Exposure Limit

CWA - Clean Water Act

DOT – Department of Transportation

DSCL – Dangerous Substances Classification and Labeling (Europe)

DSL – Domestic Substance List (Canada)

EEC/EU – European Economic Community/European Union

EINECS – European Inventory of Existing Commercial Chemical Substances

HCS – Hazard Communication System

HMIS - Hazardous Material Information System

IARC - International Agency for Research on Cancer

LD50/LC50 - Lethal Dose/Concentration kill 50%

LDLo/LCLo - Lowest Published Lethal Dose/Concentration

NFPA - National Fire Prevention Association

NIOSH - National Institute for Occupational Safety & Health

NTP - National Toxicology Program

Wilsonart International

MSDS Number: 16419 Page 5 of 5

Wilsonart® H20 Adhesive

Revision Date: 01/08/10 Revision No: 19

OSHA - Occupational Safety & Health Administration

PEL – Permissible Exposure Limit

RCRA - Resource Conservation and Recovery Act

SARA - Superfund Amendments and Reorganization Act

STEL – Short Term Exposure Limit (15 minutes)

TDG - Transportation of Dangerous Goods (Canada)

TLV-TWA - Threshold Limit Value-Time Weighted Average

TSCA – Toxic Substances Control Act

WHMIS - Workplace Hazardous Material Information System

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named manufacturer nor any of its subsidiaries assumes any liability whatsoever for 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.

END OF MSDS DOCUMENT

CARDINAL INDUSTRIAL FINISHES

Page: 1

13463-67-7 10% - 15%

H305-GR10 LT.GUNMETAL

COMPANY AND PRODUCT INFORMATION SECTION I

CARDINAL INDUSTRIAL FINISHES

1329 POTRERO AVENUE

SOUTH EL MONTE, CA 91733

INFORMATION:

PHONE: (626) 444-9274 or (323) 283-9335 FAX: (626) 444-0382

24-Hour Emergency Phone:

(800) 424-9300 Chemtrec

PREPARED BY:

PRODUCT:

Richard A. Stewart

H305-GR10 LT.GUNMETAL

GENERAL DESCRIPTION:

EPOXY POLYESTER HYBRID POWDER COATING

HMIS CODES:

H: 1 F: 1 R: 0 P:

HAZARDOUS INGREDIENTS SECTION II

INGREDIENT EXPOSURE LIMITS V. P. CAS No. % WT (mmHg @ 20øC)

Titanium Dioxide OSHA PEL: 15 mg/m3; ACGIH TLV: 10 mg/m3

SECTION III PHYSICAL DATA

BOILING RANGE: n/a

VAPOR DENSITY: Heavier than air SPECIFIC GRAVITY: 1.6305 EVAPORATION RATE: N/A WEIGHT PER GALLON: 13.577 lb/gl % VOLATILE BY VOLUME: N/A % VOLATILE BY WEIGHT: N/A % SOLIDS BY VOLUME: 100. % SOLIDS BY WEIGHT: 100. % EXEMPT BY VOLUME: N/A % EXEMPT BY WEIGHT: N/A

EXCLUDING EXEMPT: 0.0 lb/gl VOC CONTENT: 0 g/l INCLUDING EXEMPT: 0.0 lb/gl 0 g/l

VOC content tested per EPA METHOD 24, ASTM D2369 is less than 1% Wt/Wt.

Continued on next page.

H305-GR10 LT.GUNMETAL

SECTION IV FIRE AND EXPLOSION RISKS

FLAMMABILITY CLASSIFICATION: Combustible Solids Class IIIB

FLASH POINT: N/A METHOD: N/A L.E.L.: 10g/m3 U.E.L.: 70mg/m3

 ${\tt EXTINGUISHING\ MEDIA:\ Foam,\ alcohol\ foam,\ CO2,\ dry\ chemical,\ water\ fog.}$

UNUSUAL FIRE AND EXPLOSION HAZARDS: Combustion may occur when suspended in air in an enclosed environment with an ignition source. (ie: Duct work)

SPECIAL FIREFIGHTING PROCEDURES: Self-contained breathing apparatus with full facepiece operated in pressure demand or other positive pressure modes.

SECTION V HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

SKIN CONTACT: Slight irritation, dry skin, minor rashes.

EYE CONTACT: Moderate irritation, redness, tearing and itching sensation.

INHALATION: May cause nasal irritation, sneezing and coughing.

INGESTION: May cause gastrointestinal irritation, nausea, and diarrhea.

ACUTE: Can cause eye irritation, redness, tearing and blurred vision. Can cause moderate skin irritation CHRONIC: May cause skin drying, rash, and dermatitis.

CARCINOGENICITY: This product contains: (Chemical; CAS#)

Titanium Dioxide 13463-67-7

 $\ensuremath{\sharp}$ Indicates a chemical listed by IARC 2B as a possible carcinogen.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: Pre-existing respiratory conditions, allergies, eczema or skin conditions.

PRIMARY ENTRY ROUTES OF EXPOSURE: Dermal and Inhalation

EMERGENCY AND FIRST AID PROCEDURES:

 $\hbox{ {\tt EYE CONTACT:}} \quad \hbox{ {\tt Flush with large quantities of water for 15 to 30 minutes.}} \quad \hbox{ {\tt Get medical attention.}}$

SKIN CONTACT: Wash exposed area with mild soap and water for 15 minutes. Remove contaminated clothing. INHALATION: Remove victim to fresh air. If breathing is difficult, administer oxygen. If breathing has

stopped, give artificial respiration. Get immediate medical attention.

 ${\tt INGESTION:} \ < \ {\tt DO} \ {\tt NOT} \ {\tt INDUCE} \ {\tt VOMITING} \ > \ {\tt Keep} \ {\tt victim} \ {\tt warm} \ {\tt and} \ {\tt seek} \ {\tt immediate} \ {\tt medical} \ {\tt attention}.$

Continued on next page.

CARDINAL INDUSTRIAL FINISHES H305-GR10 LT.GUNMETAL

NDUSTRIAL FINISHES Page: 3

SECTION VI REACTIVITY DATA

STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Extremely high temperatures, poor ventilation and excessive aging.

INCOMPATIBILITY (MATERIALS TO AVOID): Avoid contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION OR BY PRODUCTS: Thermal decomposition may produce carbon dioxide and/or carbon monoxide.

SECTION VII SPILL AND LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Prevent dust clouds from forming. Eliminate all sources of ignition. Wear eye protection and dust mask. Sweep and use non-sparking shovels to scoop up. Place material in recovery container for disposal. Prevent from spreading to ground water.

WASTE DISPOSAL METHOD: Powder may be classified as a non-hazardous material. However, material should first be tested in accordance with EPA for TCLP requirements. Dispose of in accordance with local, state and federal regulations.

SECTION VIII SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: Use a Particulate Respirator with an R95 rating for all handling of this product. Engineering or administrative controls should be implemented to reduce exposure.

VENTILATION: Provide sufficient "UL" approved mechanical (General and/or local exhaust) ventilation to control dust. This product is designed for industrial use in approved spray enclosures.

PROTECTIVE GLOVES: Use Gloves to prevent exposure to powder.

EYE PROTECTION: Use proper eye protection to prevent exposure to powder.

OTHER PROTECTIVE EQUIPMENT: Prevent repeated or prolonged skin contact, wear impervious clothing and work shoes.

HYGIENIC PRACTICES: Remove and wash soiled clothing before reuse. Wash hands before eating or smoking.

Continued on next page.

ate Printed: II/2/2010

CARDINAL INDUSTRIAL FINISHES

Page: 4

H305-GR10 LT.GUNMETAL

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool dry place and protect from breakage. (Avoid moisture) Clean up spills immediately, keep tightly closed when not being used. Avoid poor ventilation and excessive aging. Do not store near food or drinks. Do not allow powder dust to accumulate in and around machinery.

OTHER PRECAUTIONS: Powder coating application equipment should be grounded at all times to prevent static electricity build-up. (OSHA 29CFR 1910.107) "There shall be no open flame or spark producing equipment in any spraying area nor within 20 feet thereof, unless separated by a partition."

SECTION X SHIPPING INFORMATION

D.O.T. SHIPPING NAME : Not Regulated By D.O.T., 49 CFR

D.O.T. HAZARD CLASS : None
UN/NA NUMBER : None
PACKAGING GROUP : None
D.O.T. LABELS REQUIRED : None

SECTION XI OTHER REGULATORY INFORMATION

Toxic Control Act: All components of this product are listed on the EPA TSCA Inventory or exempt from notification.

Canadian Environmental Protection: All of the components of this product are approved and listed on the Canadian Domestic Substance List or exempt from notification requirements.

California Proposition 65:

* This product contains (a) chemical(s) known to the State of California to cause cancer.

* Crystalline Silica 14808-60-7

The information contained in this Material Safety Data Sheet is considered to be true and accurate. Cardinal Industrial Finishes makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. This data is offered solely for the user's consideration, investigation and verification.



Website

Material Safety Data Sheet HOUGHTO-PREP ZP

Revision Date: 03/14/2008

1. Chemical Product and Company Identification

Product Name HOUGHTO-PREP ZP Emergency 24 HOUR - (800) 424-9300

Phone Number (CHEMTREC)
Company Name Houghton International Inc.

Madison & Van Buren Aves FAX (610) 666-1376 Valley Forge, PA 19482

Customer (888) 459-9844

Telephone (610) 666-4000

2. Hazardous Ingredients

Service

| Component | Cas No | % by Weight | Hazards |
|-----------------|-----------|----------------|---|
| Nitric Acid | 7697-37-2 | < 1 | TLV: 2 ppm PEL: 2 ppm STEL: 4 ppm Other: |
| Phosphoric Acid | 7664-38-2 | <1 | TLV: 1 mg/m³ PEL: 1 mg/m³ STEL: 3 mg/m³ Other: |

N/E - Not Established; N/A - Not Applicable; Mfr - Manufacturer Recommendation

www.houghtonintl.com

3. Hazards Identification

Primary Entry Routes EYES, SKIN, INHALATION

Acute Effects

Inhalation AVOID BREATHING MISTS OF PRODUCT AND/OR DILUTIONS, WHICH MAY

CAUSE IRRITATION OF UPPER RESPIRATORY TRACT.

Eye MAY CAUSE SEVERE EYE IRRITATION OR CHEMICAL BURNS. MAY CAUSE

PERMENANT DAMAGE.

Skin MAY CAUSE SEVERE SKIN IRRITATION OR CHEMICAL BURNS. BLISTERING

MAY OCCUR.

INGESTION MAY CAUSE SEVERE IRRITATION OR CORROSIVE BURNS TO

MOUTH, THROAT AND DIGESTIVE TRACT.

Carcinogenicity THIS PRODUCT DOES NOT CONTAIN ANY COMPONENT REPORTABLE AS A

CARCINOGEN UNDER 29 CFR 1910.1200.



Material Safety Data Sheet HOUGHTO-PREP ZP

Revision Date: 03/14/2008

HOUGHTO-PREP ZP

3. Hazards Identification - continued

Medical Conditions Aggravated by LongTerm Exposure PRE-EXISTING SKIN AND RESPIRATORY CONDITIONS MAY BE AGGRAVATED

BY EXPOSURE.

Chronic Effects UNKNOWN

HMIS:

Health 3

Flammability 0

Reactivity 0

4. First Aid Measures

Inhalation IF INHALED, REMOVE TO A SOURCE OF FRESH AIR.

Eye Contact IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES. GET IMMEDIATE

MEDICAL ATTENTION.

Skin Contact FLUSH SKIN WITH LARGE AMOUNTS OF WATER. REMOVE CONTAMINATED

CLOTHING AND LAUNDER BEFORE REUSING. CONSULT PHYSICIAN IF

IRRITATION PERSISTS.

Ingestion IF INGESTED, DO NOT INDUCE VOMITING. RINSE MOUTH AND THROAT WITH

WATER. GIVE WATER, MILK OR MILK OF MAGNESIA. CONSULT PHYSICIAN.

Note to Physicians NO SPECIFIC ANTIDOTE KNOWN. BASED ON INDIVIDUAL REACTIONS OF

THE PATIENT, THE PHYSICIAN'S JUDGMENT SHOULD BE USED TO CONTROL

SYMPTOMS AND CLINICAL CONDITIONS.

N/A - Not Applicable

5. Fire Fighting Measures

Flash Point N/A - PRODUCT CONTAINS WATER.

Autoignition Temperature N/D

LEL N/A

UEL N/A

^{*} indicates that there may be chronic health effects present



Material Safety Data Sheet HOUGHTO-PREP ZP

Revision Date: 03/14/2008

5. Fire Fighting Measures - continued

Extinguishing Media SUITABLE EXTINGUISHING MEDIA FOR THE SURROUNDING FIRE SHOULD BE

USED.

Unusual Fire or Explosion

Hazards

PRODUCT IS STRONGLY ACIDIC. IF PRODUCT IS SPILLED, WEAR

PROTECTIVE GEAR.

Fire Fighting Instructions USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL. WEAR

PROTECTIVE GEAR DURING FIREFIGHTING.

NFPA:

Health 3

Flammability 0

Reactivity 0

Special COR

N/A - Not Applicable; ND - Not Determined; > - Greater Than; < - Less Than

6. Accidental Release Measures

Spill or Release Procedures WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. NEUTRALIZE

SPILL WITH SODA ASH OR DILUTE ALKALI, DILUTE WITH WATER AND MOP UP

THOROUGHLY.

7. Handling and Storage

Handling Precautions CAUTION! PRODUCT IS ACIDIC. WEAR RECOMMENDED PROTECTIVE

EQUIPMENT. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. USE WITH

ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

Storage Requirements STORE AWAY FROM STRONG ALKALI. KEEP CONTAINERS CLOSED WHEN

NOT IN USE. EMPTY CONTAINERS MAY RETAIN PRODUCT RESIDUE.

PRECAUTIONS APPLY TO EMPTY CONTAINERS.

8. Exposure Controls/Personal Protection

Engineering Controls PROVIDE GENERAL AND/OR LOCAL EXHAUST VENTILATION TO MAINTAIN

AIRBORNE CONCENTRATIONS BELOW THE EXPOSURE LIMITS IN SECTION 2.

Personal Protective Equipment

nougnton international inc.

Revision Date: 03/14/2008

Material Safety Data Sheet HOUGHTO-PREP ZP

8. Exposure Controls/Personal Protection - continued

Eye/Face Protection WEAR SAFETY GOGGLES OR FACE SHIELD.

Skin Protection USE RUBBER GLOVES AND LONG SLEEVES TO MINIMIZE SKIN EXPOSURE.

USE APRON OR OVERALLS IF SPLASHING IS POSSIBLE.

Respiratory Protection RESPIRATORY PROTECTION REQUIRED IF APPLICABLE EXPOSURE LIMITS

ARE EXCEEDED. RECOMMENDED IN MISTING CONDITIONS.

Other EYE WASH AND SAFETY SHOWER RECOMMENDED.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, or applying cosmetics.

9. Physical and Chemical Properties

Appearance TRANSPARENT, FAINTLY AMBER Water Solubility COMPLETE

LIQUID

Boiling Point 215° F

Odor SLIGHT ACIDIC ODOR

Evaporation Rate (BuAc = 1)

Vapor Pressure AS WATER (Bu/ (mmHg)

Vapor Density AS WATER (Air = 1)

Specific Gravity

Specific Gravity 1.0204

(Water = 1)

pH (Neat) 2.8

pH (Dilution)

At Percent 1

pH 2.96

N/D - Not Determined; N/A - Not Applicable; > - Greater Than; < - Less Than

10. Stability and Reactivity

Stability THIS PRODUCT IS STABLE AT ROOM TEMPERATURE IN CLOSED

CONTAINERS UNDER NORMAL STORAGE AND HANDLING CONDITIONS.

<1

Chemical Incompatibilities STRONG OXIDIZERS, STRONG ALKALIES.

nougnton international inc.

Revision Date: 03/14/2008

Material Safety Data Sheet HOUGHTO-PREP ZP

10. Stability and Reactivity - continued

Hazardous Decomposition Products

OXIDES OF PHOSPHORUS, NITROGEN

Hazardous Polymerization

HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

11. Toxicological Information

NO DATA AVAILABLE

12. Ecological Information

NO DATA AVAILABLE

13. Disposal Considerations

Disposal FOLLOW PERTINENT REGULATIONS FOR DISPOSAL. IT IS THE

RESPONSIBILITY OF THE PRODUCT USER TO DETERMINE, AT THE TIME OF DISPOSAL, WHETHER A MATERIAL CONTAINING THE PRODUCT OR DERIVED FROM THE PRODUCT SHOULD BE CLASSIFIED AS A HAZARDOUS WASTE.

(40 CFR 261.20-24)

RCRA Hazardous Waste

Number

D002 (CORROSIVITY)

14. Transportation Information

Proper Shipping Name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID AND

NITRIC ACID), 8, UN 3264, II.

15. Regulatory Information

TSCA Section 8(b) ALL OF THE COMPONENTS IN THIS PRODUCT ARE ON THE TSCA

INVENTORY.

CERCLA Reportable

Quantity

NONE





Material Safety Data Sheet HOUGHTO-PREP ZP

Revision Date: 03/14/2008

15. Regulatory Information - continued

SARA Title III, Section 313 THIS PRODUCT CONTAINS NO TOXIC CHEMICAL 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.

Ozone Depleting Substances THIS PRODUCT WAS NOT MANUFACTURED, DOES NOT CONTAIN, AND WAS

NOT PACKAGED USING ANY CLASS I OR CLASS II OZONE DEPLETING

SUBSTANCE AS DEFINED BY THE CLEAN AIR ACT.

16. Other Information

Prepared By GARY CARL

Title MANAGER, PRODUCT SAFETY

Disclaimer: The information presented herein has been compiled from sources considered to be dependable and is accurate as of the date issued. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use are beyond our control, Houghton International makes no warranty regarding the accuracy of such data or its suitability for any purchaser's use or for any consequence of its use. The data in this MSDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. Safe handling and use remains the responsibility of the purchaser and the purchaser has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. Houghton International assumes no responsibility for injury to the recipient or to third persons or for any damage to any property and the recipient assumes all such risks.