MATERIAL SAFETY DATA SHEET

20.00321- 12 00DATE OF PREPARATION

Jan 9, 2014

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

20.00321-

PRODUCT NAME

H&C® SHIELD PLUS ULTRA™ Acrylic Concrete Stain, Ultradeep Base

MANUFACTURER'S NAME

H&C CONCRETE STAINS 101 Prospect Avenue N.W. Cleveland, OH 44115

Telephone Numbers and Websites

| relephone Humbers and Hebsites | _ | |
|---|------------------------------|--|
| Product Information | t Information (800) 867-8246 | |
| | www.hc-concrete.com | |
| Regulatory Information | (216) 566-2902 | |
| | www.paintdocs.com | |
| Medical Emergency | (216) 566-2917 | |
| Transportation Emergency* | (800) 424-9300 | |
| *for Chemical Emergency ONLY (spill, leak, fire, exposure, or | | |
| | accident) | |

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

| % by Weight | CAS Number | Ingredient | Units | Vapor Pressure |
|-------------|------------|-----------------------------------|-----------------------------|----------------|
| 4 | 29911-28-2 | 1-(2-Butoxymethylethoxy)-propanol | | |
| | | ACGIH TLV | Not Available | 0.06 mm |
| | | OSHA PEL | Not Available | |
| 2 | 107-21-1 | Ethylene Glycol | | |
| | | ACGIH TLV | 100 MG/M3 CEILING (aerosol) | 0.12 mm |
| | | OSHA PEL | 50 PPM CEILING | |
| 0.2 | 14464-46-1 | Cristobalite | | |
| | | ACGIH TLV | 0.025 mg/m3 as Resp. Dust | |
| | | OSHA PEL | 0.05 mg/m3 as Resp. Dust | |

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE

EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:

• the liver

• the urinary system

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

| HMIS Codes | | | | |
|------------|----|--|--|--|
| Health | 2* | | | |

Health 2*
Flammability 0
Reactivity 0

SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT LEL UEL FLAMMABILITY CLASSIFICATION

Not Applicable Not Not Applicable

Applicable Applicable EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Alcohol Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE

STORAGE CATEGORY

Not Applicable

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT 9.26 lb/gal 1109 g/l

SPECIFIC GRAVITY 1.11

BOILING POINT 212 - 449 °F **MELTING POINT** Not Available

100 - 231 °C

VOLATILE VOLUME 73%

EVAPORATION RATE Slower than

ether VAPOR DENSITY Heavier than air

SOLUBILITY IN WATER Not Available

pH 9.0

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

1.61 lb/gal 193 g/l Less Water and Federally Exempt Solvents

0.52 lb/gal **Emitted VOC** 63 g/l

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable **CONDITIONS TO AVOID**

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

Crystalline Silica (Quartz, Cristobalite) is listed by IARC and NTP. Long term exposure to high levels of silica dust, which can occur only when sanding or abrading the dry film, may cause lung damage (silicosis) and possibly cancer.

Ethylene Glycol is considered an animal teratogen. It has been shown to cause birth defects in rats and mice at high doses when given in drinking water or by gavage. There is no evidence to indicate it causes birth defects in humans.

TOXICOLOGY DATA

| CAS No. | Ingredient Name | | | | |
|------------|-------------------------------|------|-----|---------------|--|
| 29911-28-2 | 1-(2-Butoxymethylethoxy)-prop | anol | | | |
| | LC50 | RAT | 4HR | Not Available | |
| | LD50 | RAT | | Not Available | |
| 107-21-1 | Ethylene Glycol | | | | |
| | LC50 | RAT | 4HR | Not Available | |
| | LD50 | RAT | | 4700 mg/kg | |
| 14464-46-1 | Cristobalite | | | - | |
| | LC50 | RAT | 4HR | Not Available | |
| | LD50 | RAT | | Not Available | |

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

US Ground (DOT)

Not Regulated for Transportation.

Canada (TDG)

Not Regulated for Transportation.

IMO

Not Regulated for Transportation.

IATA/ICAO

Not Regulated for Transportation.

SECTION 15 — REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

| CAS No. | CHEMICAL/COMPOUND | % by WT | % Element |
|----------|-------------------|---------|-----------|
| 107-21-1 | Ethylene Glycol | 2 | |

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **TSCA CERTIFICATION**

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.