



SAFETY DATA SHEET

HMIS RATINGS: HEALTH: 1 * FIRE: 1 REACTIVITY: 0 PERSONAL PROTECTION: H

SECTION 1: PRODUCT COMPANY & IDENTIFICATION

Company Name: Ultra Durable Technologies, 1415 5th St N, St. Cloud, MN 56303
Product Name: UDT Concrete Dye
Effective Date: May 5, 2017
Emergency Phone: CHEMTREC 1-800-424-9300
In Canada call +1703-527-3837

SECTION 2: HAZARD IDENTIFICATION AND EMERGENCY OVERVIEW

Emergency Overview:

Unprotected contact and prolonged exposure may cause mild skin irritation. May cause allergic reactions in some sensitive individuals.

Eye Contact:

Depending on duration and personal sensitivity, unprotected contact may cause mild irritation, discomfort, redness, watering, itching or other effects. Heavy contact or for prolonged period may increase effects. Follow ALL supervisor and Personal Protection instructions in Section 8 of this SDS.

Skin Contact:

Depending on amount of direct, unprotected contact, vapors, mists, splashes, aerosols, or dusts of product may cause irritation, redness, rash, itching, burning feeling, drying, cracking, discomfort, or other effects. Slight possibility of allergic reactions in some individuals. For some, prolonged or repeated contact may cause inflammation, or other effects.

Inhalation:

Not known to cause harmful respiratory effects under normal conditions when good chemical hygiene procedures are followed and properly selected dust and/or vapor respirator is correctly used. As precaution against unforeseen irritation or reactions, read, understand and follow information in Section 8 of SDS, and instructions of your supervisor. Heated processing, spraying or misting of liquids may cause irritation or other effects. Unprotected contact without PPE, adequate ventilation, or in confined spaces may cause varied health effects, depending on duration and individual sensitivity.

Ingestion:

Depending on amount swallowed, product can cause mild irritation of mouth, throat, esophagus, stomach, and gastrointestinal tract. Effects may include upset stomach, abdominal discomfort, nausea, vomiting, gastrointestinal disturbances, dizziness, diarrhea, or other effects. Aspiration into lungs during vomiting is an emergency and may cause lung injury and life-threatening conditions.

Medical Conditions Aggravated by Exposure:

Depending on individual sensitivity, eye or skin contact with vapors, mists, aerosols, liquids, splashes or dusts of product may aggravate the following pre-existing medical conditions: Chronic skin conditions or diseases, and eye conditions or diseases. Individuals with such conditions, or with known or suspected chemical sensitivities or allergies should avoid working with or being exposed to any chemicals.

Skin Sensitization:

Contact may cause slight possibility of skin sensitization or allergic reaction in some individuals. Effects may include redness, swelling, itching, rash and hives. It may take repeated or prolonged exposure to cause health effects. Sensitization symptoms or allergic reactions may be unpredictable. If symptoms appear, IMMEDIATELY REMOVE PERSON FROM AREA OF CONTACT and follow Section 4 instructions. In rare cases, if reaction becomes severe, GET IMMEDIATE MEDICAL ATTENTION, as a precaution. Persons known to have or suspected of chemical sensitivity or allergy should not work with dyes or other chemicals.

Respiratory Sensitization:

Not known to cause respiratory sensitization. With careful handling and good chemical hygiene procedures being followed, no harmful effects are expected. As a precaution against unforeseen or unexpected sensitivity or possible allergic reactions, follow ALL Personal Protection instructions in Section 8 of this SDS. All PPE must be cleaned and maintained after each shift. All exposures should be avoided. Individuals known to be, or suspected to be sensitive to chemical exposure should not work with chemicals.

Special Warnings:

None for this material

Unusual Health Hazards:

None for this material

Supplemental Hazard Information:

No additional information is currently available

Notes to Physician:

Treat Symptomatically based on Section 2 Hazard Warnings and Section 3 ingredients unless indicated otherwise

Cancer Information:

Chemical Name	CAS #	WT %	IARC	NTP	OSHA	NIOSH	ACGIH
Cr+3 (Complexed in dye molecule)	7440-47-3	1 - 10%	Group 3 Unclassifiable on human carcinogenicity	NONE	NONE	NONE	NONE

SECTION 3: OSHA HAZARDOUS INGREDIENTS

Component	CAS Number	Wt %	OSHA - PEL	ACGIH - TLV	Recommended PEL
Confidential dye	Undisclosed	30 - 40%	Not established	Not established	Lowest possible exposure or zero with best PPE.
Cr+3 (Complexed in dye molecule)	7440-47-3	1 -10%	0.5 mg/m3 TWA	0.5 mg/m3 TWA	Not applicable

Important Notice:

Unprotected contact with ingredients listed in Section 3 may be hazardous based on OSHA 29 CFR 1910.1200 & related appendices. Components not listed are trade secrets, non-hazardous, or not reportable. This SDS is not intended to offer full disclosure, but all component information is available to medical or emergency personnel. All hazards are based on contact exposure. Effects may be unpredictable and may vary from person to person due to individual reactions. Reducing or eliminating contact can reduce or eliminate risk. Use protective equipment and clothing in Section 8 to minimize or eliminate contact. Users are responsible for hazard determination and communication. Unless indicated otherwise, non-carcinogenic components are indicated within a 1-10% range, and investigated or potential carcinogens within a 0.1-1% range. HMIS ratings are based on data interpretation, and vary from company to company. They are intended only for quick, general identification of the degree of potential hazards. Hazards range from 0 (Minimal) up to 4 (Severe). Consult the National Paint & Coatings Association HMIS Manual for detailed information on ratings. To handle material safely, consider all information in this SDS.

SECTION 4: FIRST AID INSTRUCTIONS**Eye Contact:**

Immediately rinse with flowing water for at least 15 minutes while holding eyelids open. Get immediate medical attention, as a precaution. Have a copy of this Safety Data Sheet available

Skin Contact:

Immediately remove contaminated clothing. Wash affected area with soap and rinse with plenty of water. Get medical attention, as a precaution. Have a copy of this Safety Data Sheet available.

Inhalation:

Immediately move person to fresh air. If breathing is difficult give oxygen, call 911, calm the individual. If not breathing, call 911, give artificial respiration (CPR) until medical help arrives. Have this Safety Data Sheet available.

Ingestion:

Do not induce vomiting unless directed to do so by a doctor or by other emergency medical personnel. Forced vomiting of certain chemicals may cause aspiration and lung damage. Have this Safety Data Sheet available.

SECTION 5: FIRE FIGHTING INSTRUCTIONS**Auto-ignition Temperature:**

Not applicable

LEL:

Not applicable

UEL:

Not applicable

Unusual hazards:

None expected

Other Hazards:

None known

Types of Extinguishers:

CO2, dry chemical, foam, water fog or spray depending on type of fire

Fire Fighting Directions:

Wear self-contained breathing equipment and fire-proof clothing. Use water spray to cool fire exposed containers if they cannot be safely moved.

SECTION 6: ACCIDENTAL SPILL OR RELEASE INSTRUCTIONS**Special Precautions:**

None known. Follow general precautions shown below.

Reporting:

Check the applicable RQs in Section 15

Static Discharges:

IMPORTANT - FOR DYES CONTAINING FLAMMABLE SOLVENTS (Check section 3 for ingredients, section 5 or 9 for flash point, section 14 for transport classification). IF FLAMMABLE, GUARD AGAINST FIRE AND EXPLOSION: Take precautionary measures against static discharges when cleaning up leaks or spills of combustibles, flammables and powders. Containers should be properly grounded with metal straps, cables or other appropriate means to relieve static electricity build-up or generation. IMPORTANT: When using, mixing, filling, or otherwise dispensing any types of solvents, do not allow buildup of flammable or combustible vapors or vapor-air mixtures in confined spaces, storage tanks, or any other areas or enclosures. Totes, drums, pails, and all other containers should be completely sealed when not in use. Flammable vapors can travel a distance to ignition sources and cause fire or explosion. Take every precaution and monitor all safety factors and systems, including maintaining more-than-adequate air-exchange ventilation.

Environmental Protection:

Immediately dike liquid spills with inert absorbent material (sand, "Oil Dry" or other commercially available spill absorbent) to contain and soak up liquid. Prevent material from entering floor drains, sewers, or any bodies of water. For powder spills, use sweeping compound, sawdust, or other appropriate material to contain dust. If possible, recover any uncontaminated materials to re-use.

Protective equipment and clothing:

Wear all proper personal protective equipment and clothing to care for spill situation. See section 8 of this Safety Data Sheet.

Clean up:

After containing liquid spill by diking and soaking up with inert absorbent material, place in labeled container to be sealed for proper and regulated disposal. Only the slightest residue should remain. Try to save uncontaminated material for reuse whenever possible. For powders, use sweeping compound to minimize dust and pick up as much product as possible. Do not allow liquids to seep into drains, sewers, lakes, rivers, etc. Check Sections 1 and 2 for dye description or type. Solvent dye residue may be cleaned by scrubbing with detergent, depending on type. Do not add water to water-soluble dyes. Dye is concentrated. This will increase amount of color to remove. All cleaning or scrubbing liquids used should be absorbed and placed in labeled containers for correct disposal. Absorbent material containing solvents may release combustible or flammable vapors and should be handled accordingly, properly labeled and disposed. Check Sections 2, 5, 13 & 15 for applicable instructions and regulations.

SECTION 7: HANDLING AND STORAGE**Warnings and Precautions:**

No special precautions anticipated. Wear all PPE in section 8 as a precaution, and avoid physical contact with material.

Personal Protection:

Wear ALL proper personal protective equipment as outlined in section 8 of this SDS.

Handling, Storage & Temperature Conditions:

Keep containers tightly sealed in cool & dry area, out of direct sunlight. IMPORTANT: FOR PRODUCTS LISTING FLAMMABLE/COMBUSTIBLE SOLVENTS or LOW FLASH POINTS - GUARD AGAINST FIRE AND EXPLOSION: Store away from fire hazards and ignition sources, high heat, open flames, welding, hot plates, steam pipes, radiators, etc. Maintain good ventilation. Guard against static discharges. Ground all containers before mixing or filling. Use non-sparking tools to open, close or otherwise work with containers. Limit indoor storage to approved areas with automatic sprinklers. Vapors expected to be released when material is heated during process operations.

STATIC CHARGES: Take precautionary measures against static discharges when mixing, cleaning, filling or otherwise dispensing combustible or flammable liquids. Containers should be properly grounded with metal straps, cables or other appropriate means to relieve static electricity build-up or generation.

VAPORS: IMPORTANT: DO NOT ALLOW buildup of flammable or combustible vapors or vapor-air mixtures in confined spaces, storage tanks, or any other areas or enclosures. Totes, drums and all other containers should be completely sealed when not in use. Vapors can travel a distance to ignition sources and cause fire or explosion. Take every precaution and monitor all safety factors and systems, including maintaining more-than-adequate air-exchange ventilation.

POWDERS: General precautions: Although unlikely in most instances, GUARD AGAINST DUST EXPLOSION HAZARD. Eliminate or keep dust to a minimum. Under the right conditions, high dust concentrations of certain particle sizes mixed with air in a critical ratio in the presence of an ignition source can theoretically cause a dust explosion. Be sure to PROPERLY ground containers when filling, mixing or otherwise dispensing powders. KEEP WORK AREA CLEAN AND DUST-FREE. Follow all Section 8 recommendations for Exposure Controls and Personal Protection.

WATER-BASED PRODUCTS: DO NOT ALLOW TO FREEZE.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**Note: Selecting protective equipment & clothing:**

When choosing personal protective equipment and clothing, consider each worker's environment, all chemicals being handled, temperature, ventilation, and all other conditions. Determination of the level of protection needed for the eyes, skin and respiratory system under working conditions is the responsibility of the product end-user or shift supervisor. SDS Sections 2, 3, 8 and 11 should be consulted.

Eye protection:

As a precaution, wear indirectly vented, splash-proof chemical safety goggles. When handling liquids, wear splash-proof goggles under a clear face-shield. Face shield is not to be used without these goggles. The type or extent of protection needed should be determined by the product end-user or shift supervisor.

Skin Protection:

Always wear impervious, chemical-resistant synthetic or rubber gloves. Check with manufacturer for best glove for the material being handled. Wear good quality long sleeved work shirt, coveralls, and a rubber or plastic apron. Wash hands after handling and before eating, drinking or using restroom. Shower after each shift. Clean contaminated but reusable protective equipment and clothing before reusing and wearing again. Discard contaminated disposable gloves and clothing. The type or extent of protection needed should be determined by the product end-user or shift supervisor.

Respiratory Protection:

Depending on type of material handled and processing conditions, the appropriate NIOSH approved air-purifying organic vapor/mist respirator or dust respirator (with proper pre-filters if required) should be worn as a precaution when any inhalation contact with product is possible. A properly selected, disposable NIOSH approved air-purifying mask may be acceptable (Check with the mask manufacturer). After each shift or when equipment becomes contaminated, clean the respirator and replace filters in compliance with 29 CFR 1910.134. Discard disposables as often as required. The type or extent of protection needed should be determined by the product end-user, shift supervisor or other appropriate on-site manager.

Eye Washes and Other Protection:

Eye wash stations and drench showers should be located within 100 feet or 10-second walk of the work area per ANSI standard Z358.1-1990.

Ventilation:

Local exhaust or other appropriate ventilation should be used to maintain exposure limits below specified amounts recommended by OSHA, NIOSH, or ACGIH and to draw spray, aerosol, vapors, or dusts away from workers and prevent routine inhalation. At least 10 air changes per hour are recommended for good room ventilation. **IMPORTANT - GUARD AGAINST FIRE AND EXPLOSION:** When using, mixing, filling, or otherwise dispensing any types of solvents, do not allow buildup of flammable or combustible vapors or vapor-air mixtures in confined spaces, storage tanks, or any other areas or enclosures. Totes, drums and all other containers should be completely sealed when not in use. Vapors can travel a distance to ignition sources and cause fire or explosion. Take every precaution and monitor all safety factors and systems, including maintaining more-than-adequate air-exchange ventilation.

Airborne Exposure Limits:

Chemical Name	CAS #	WT %	NIOSH - REL	NIOSH - IDLH	OTHER OEL'S
Cr+3 (Complexed in dye molecule)	7440-47-3	1 - 10%	0.5 mg/m ³ TWA	Not established	Not established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Flash Point:	200°F
pH:	7.0 - 8.0
% Water Content:	65.00 - 75.00
% Total Solids / Non-Volatiles:	1.63
% Total VOC:	0.00
% Solvents:	0
% Other Components:	Preservative @ 0.1
Boiling Point:	Approx. 100 °C (212 °F)
Appearance:	Varies by color
Odor:	Mild to none
Freezing/Melting Point:	~ 32 °F
Lbs. per gallon:	9.18
Specific Gravity (Liquid):	1.09
Vapor Pressure:	0
Solubility:	Soluble - Test as required
Other Properties:	No further data

All Data shown above are typical values, not specifications.

SECTION 10: STABILITY AND REACTIVITY

Stability:

Product is expected to be stable under normal, ambient (controlled) conditions concerning heat, moisture, pressure, fire and ignition hazards, and ventilation. Contact with incompatible or reactive materials may cause hazardous reactions in some products if indicated. Check information below.

Hazardous Polymerization:

Product will not undergo polymerization.

Conditions to Avoid:

None known

Incompatible Materials:

None known

Hazardous Decomposition Products:

In fire: Oxides of carbon, nitrogen, sulfur

Possible Hazard Reactions:

None known

SECTION 11: TOXICOLOGICAL INFORMATION

Component	Eye Effect	Skin Effect	Skin Sens	Resp Sens	Oral LD50	Inh LC50	Mutagen	Other Tox Data	Other Info
Cr+3 (Complexed in dye molecule)	Expected to irritate	Expected to irritate	No Data	No Data	No Data	No Data	No Data	No Data	Possible allergic skin reaction, dermatitis, respiratory effects in individuals.

SECTION 12: ECOLOGICAL DATA

Component	AOX	Aquatic Tox	BOD	Biodeg.	COD	Ecotoxicity	Sewage	Other Test Data	Other Info
*** No Data ***									

SECTION 13: DISPOSAL AND ENVIRONMENTAL CONSIDERATION

Reuse of materials:

Reclaim all uncontaminated material to reuse, recycle or otherwise rework whenever possible.

Contain - Do not release:

Do not release into sewers, water systems, ground systems or ecosystems without proper authorization.

Disposal Methods:

Incinerate, treat, or bury (landfill), after sampling and testing, at facility approved by applicable federal, state, and local authorities.

Empty Containers:

Empty containers may contain residue and/or vapors and should not be reused unless professionally cleaned and reconditioned. Crush if not cleaned, to prevent reuse.

Applicable Regulations:

See Section 15 if regulated

Special Instructions:

See Section 15 if regulated

SECTION 14: SHIPPING AND TRANSPORTATION INFORMATION

DOT Regulations (Ground):

Notes/Special Precautions: Not regulated. PROTECT FROM FREEZING.

IATA Regulations (Air):

Notes/Special Precautions: Not regulated. PROTECT FROM FREEZING.

IMDG / IMO Regulations (Water):

Notes/Special Precautions: Not regulated. PROTECT FROM FREEZING.

SECTION 15: REGULATORY INFORMATION

FEDERAL AND STATE LISTS

Component	CAS Number	Weight %	Regulatory List
Confidential dye	Undisclosed	30 -40%	No listings known to be applicable.
Cr+3 (Complexed in dye molecule)	7440-47-3	1 - 10%	CERCLA, CWA, RCRA: D007, SARA 313: 0.1%, States: DE, MA, MN, NJ, NY

SARA 311/312 Hazard Categories:

Immediate / Acute Health Hazard:	YES
Chronic / Delayed Hazard:	YES
Fire Hazard:	NO
Sudden Release of Pressure Hazard:	NO
Reactivity Hazard:	NO

GLOBAL CHEMICAL REGISTRATION LISTINGS:

AICS (Australia):	Status not determined
DSL (Canada):	Status not determined
ECL (Korea):	Status not determined
EINECS (Europe):	Components listed
ENCS (Japan):	Not all components listed
IECSC (China):	Status not determined
NZIoC (New Zealand):	Status not determined
PICCS (Philippines):	Status not determined
TSCA (US):	Components listed

EU Reach:

Keystone has taken all relative steps to ensure REACH-Compliance. Please contact us with any REACH-Related questions.

OTHER LISTINGS:

Other national or regional registrations not yet determined.

Additional Info:

For additional international, federal or state regulatory compliance information not shown: Call 312-666-2015.

SECTION 16: OTHER INFORMATION**Reason for Revision: Reviewed:**

General review 091009

REVISION DATE: 05/05/2017

Disclaimer:

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 contained herein. This Safety Data Sheet was prepared to comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200, and supersedes any previous information. Previously dated sheets are invalid and inapplicable.

END OF SDS