

MATERIAL SAFETY DATA SHEET

Ucrete HF

Ucrete HF - Part I

SECTION 1: PRODUCT NAME AND COMPANY IDENTIFICATION

PRODUCT NAME: UCRETE HF – PART I
CHEMICAL FAMILY: Castor oil and pigment mixture.
REVISION DATE: 07/03/2000
CONTROL NUMBER: 119488

DISTRIBUTOR'S NAME: SUPERIOR EPOXIES & COATINGS, INC.
ADDRESS: 2527 Lantrac Court
Decatur, GA 30035

NON-EMERGENCY PRODUCT INFO: 1-800-543-3516
EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC, 24 Hours)

SECTION 2: HAZARDOUS INGREDIENTS

- EXPOSURE LIMITS* -

HAZARDOUS INGREDIENTS:	CASNO	TLV	STEL	PEL	CONTENT
Castor Oil	8001-79-1	None	None	None	70-80%
Aliphatic Diluent	Proprietary	None	None	None	5-10%
Surfactant	Proprietary	None	None	None	3-5%
Pine Oil	8002-09-3	None	None	None	3-5%
Butyl Benzyl Phthalate	85-68-7	None	None	None	2-5%
Aliphatic Polyol	Proprietary	None	None	None	1-2%

(*) Refer to Section 7 for available LD/LC (50) Health Hazard Data.

SECTION 3: PHYSICAL DATA

POTENTIAL HEALTH EFFECTS

Boiling Point (°C):	N/Ap	Water/Oil Distribution Coefficient:	N/Ap
Percent VOC (w/w):	0	Solubility in Water:	Dispersible
Freezing Point (°C):	N/Ap	Specific Gravity:	0.99
Vapor Pressure mmHg @20 (°C):	N/Ap	pH:	N/Ap
Vapor Density:	N/Ap	Evaporation Rate: (Butyl Acetate=1)	0.9
Odor Threshold: (ppm)	N/Ap	Odor:	Pine Oil
Appearance:	White Liquid		

N/Av = Not Available N/Ap = Not Applicable ca. = Approximate

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

HMIS Hazard Rating No. 0 (Minimal)

Flash Point: >142 °C (>288 °F)

Method: Pensky-Martens C.C.

Auto-Ignition Temperature: Not Applicable

Limits of Flammability: LEL: Not Applicable, UEL: Not Applicable

Extinguishing Media: Carbon dioxide, foam, dry chemical & water fog.

Special Fire & Unusual Hazards: At higher temperature vapors can cause pressure build up in sealed containers. Use water to cool containers exposed to fire. Self-contained respirator equipment and full protective clothing required when smoke or fumes are generated. Electrical grounding is not recommended.

SECTION 5: REACTIVITY DATA

HMIS Hazard Rating No. 0 (Minimal)

Stability: Stable. Not sensitive to mechanical impact.

Incompatibility: Strong mineral acids and oxidants.

Hazardous Decomposition Products: Oxides of Carbon; dense irritating, possibly toxic, smoke may be generated due to incomplete combustion.

Hazardous Polymerization: Will not occur.

SECTION 6: ENVIRONMENTAL AND DISPOSAL INFORMATION

Action to Take for Spills/Leaks: No special procedures are required for clean up of this material. Salvage and return for reuse or discard.

Waste Disposal Method: Does not contain hazardous chemicals as defined in 40 CFR 260. Dispose in a landfill in accordance with local, state, and federal regulations.

SECTION 7: HEALTH HAZARD DATA

HMIS Hazard Rating No. 1 (Slight)

PRIMARY ROUTE OF ENTRY: Eyes, skin, inhalation.

Effects of Overexposure

Inhalation: At room temperature, exposures to vapors are unlikely due to physical properties; higher temperatures may generate vapor levels sufficient to cause irritation and other effects.

Eyes: Can cause slight irritation.

Skin: Prolonged or repeated exposure can cause irritation.

Contact:

Skin: Not expected to be absorbed through skin in sufficient quantity to cause overall increase in toxicity.

Absorption:

LD(50) DERMAL CASRN 85-68-7 >10000 mg/kg Rabbit.

Ingestion: Can cause digestive tract irritation and diarrhea.

LD (50) ORAL CASRN 85-68-7 2330 mg/kg Rat.

Chronic: Product does not contain carcinogenic materials as defined by OSHA Hazardous Communications Act 1910.1200.

- Materials are not known mutagenic, teratogenic, or reproductive health hazards.

SECTION 8: FIRST AID

Inhalation: Remove victim from exposure. If difficulty with breathing, administer oxygen. If breathing has stopped, administer artificial respiration, preferably mouth-to-mouth. Seek medical attention.

Eyes: Flush eyes with water, lifting upper and lower lids occasionally for 15 minutes. Seek medical attention.

Skin: Remove contaminated clothing. Irritation: Gently and thoroughly wash with soap and water. If irritation persists seek medical attention. Wash contaminated clothing before reuse.

Ingestion: Do **NOT** induce vomiting; give large quantities of water to rinse mouth; get medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquids into lungs. Do **NOT** give anything by mouth to an unconscious person.

SECTION 9: SPECIAL PROTECTION INFORMATION

Ventilation: Ventilation is generally not required.

Personal Protection Equipment: Do **NOT**

wear contact lenses when working with this material. Use chemical goggles/safety glasses with side shields and Rubber/Nitrile gloves. Selection of specific items such as boots and apron will depend on operation. Wear respirator protection whenever airborne concentrations exceed TLV or TWA limits. Use NIOSH/OSHA approved respirators equipped with an organic vapor cartridge for listed hazard.

Confined spaces, rooms, or tanks are areas where concern for TLV's is especially important. Reference OSHA Regulation CFR 29 1910.134 for

recommended respiratory protection.

SECTION 10: ADDITIONAL INFORMATION

Average Shelf Life: Refer to Product Data Sheet.
Special Instructions: Store in cool, dry place.

REGULATORY INFORMATION:

Title III Section 302: No reportable chemicals.
Title III Section 311/312: Health hazard: Immediate
Physical hazard: None
Title III Section 313: None above deminimis.
State: California No reportable chemicals.
WHMIS Classification: Class D, Div. 2, Sub B
Canadian Domestic Substance List: All chemicals are listed.

TRANSPORTATION

National Motor Freight classification (NMFC): 149980 Sub: - Class: 55

Description: PAINT AND RELATED MATERIAL

Emergency Response Guide Page No.: NOT REGULATED

DOT Reportable Quantity: NOT REGULATED

Proper Shipping Name: NOT REGULATED – USE NMFC DESCRIPTION

Marine Pollutant: Not Listed

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[END: Ucrete HF; Part I]

MATERIAL SAFETY DATA SHEET

Ucrete HF

Ucrete HF - Part II

SECTION 1: PRODUCT NAME AND COMPANY IDENTIFICATION

PRODUCT NAME: UCRETE HF – PART II
CHEMICAL FAMILY: Polyurethane (MDI base) mixture.
REVISION DATE: 01/05/2001
CONTROL NUMBER: 119489

DISTRIBUTOR'S NAME: SUPERIOR EPOXIES & COATINGS, INC.
ADDRESS: 2527 Lantrac Court
Decatur, GA 30035

NON-EMERGENCY PRODUCT INFO: 1-800-543-3516
EMERGENCY PHONE: **1-800-424-9300** (CHEMTREC, 24 Hours)

SECTION 2: HAZARDOUS INGREDIENTS

- EXPOSURE LIMITS* -

HAZARDOUS INGREDIENTS:	CASNO	TLV	STEL	PEL	CONTENT
Higher Oligomers of MDI (HOMDI)	9016-87-9	0.005 ppm	None	0.02 ppm	> 90%

SECTION 3: PHYSICAL DATA

Boiling Point (°C):	Ca. 200	Water/Oil Distribution Coefficient:	N/Av
Percent VOC (w/w):	Ca. 0	Solubility in Water:	None
Freezing Point (°C):	N/Av	Specific Gravity:	1.2
Vapor Pressure mmHg @20 (°C):	< 0.001	pH:	N/Ap
Vapor Density:	Ca. 8.6	Evaporation Rate: (Ether=1)	< 1
Odor Threshold: (ppm)	0.4 ppm	Odor:	Slightly musty
Appearance:	Black/brown liquid		

N/Av = Not Available N/Ap = Not Applicable ca. = Approximate

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

HMIS Hazard Rating No. 1 (Slight)

Flash Point: >218 °C (425 °F)

Method: Cleveland O.C.

Auto-Ignition Temperature: 240 °C (464 °F)

Limits of Flammability: LEL: Not Applicable, UEL: Not Applicable

Extinguishing Media: Carbon dioxide, foam, dry chemical & halogenated agents. The reaction between water and very hot isocyanate may be vigorous.

Special Fire & Unusual Hazards: Down wind personnel must be evacuated. At higher temperature vapors can cause pressure build up in sealed containers. Use water to cool containers exposed to fire. At temperatures greater than 204 °C (400 °F) polymeric MDI can polymerize and decompose, causing pressure build up in closed containers with possible explosive rupture. Self-contained respirator equipment and full protective clothing required when smoke or fumes are generated. Electrical grounding is not recommended.

SECTION 5: REACTIVITY DATA

HMIS Hazard Rating No. 1 (Slight)

Stability: Avoid contact with moisture, reacts nonviolently, evolving CO₂. Not sensitive to mechanical impact. Excessive heat, fumes and smoke can occur if this product is not mixed and used according to directions.

Incompatibility: Strong acids, peroxides, amines, oxidizing, and reducing agents, water, and alcohol may initiate polymerization possibly hazardingly; sources of ignition.

Hazardous Decomposition Products: Oxides of carbon and nitrogen; MDI, ammonia, trace amounts of hydrogen cyanide and various unknown hydrocarbons from incomplete combustion.

Hazardous Polymerization: Will not occur when handles per instructions.

SECTION 6: ENVIRONMENTAL AND DISPOSAL INFORMATION

Action to Take for Spills/Leaks: Ventilate area, eliminate all sources of ignition. Prevent from entering sewers and waterways. Wear skin, eye, and respiratory protection during cleanup. Soak up material with absorbent material and shovel into chemical waste container. Cover container but do **NOT**

seal and remove from area. Wash down area with a mixture of liquid detergent (0.2% - 0.5%) and ammonium hydroxide (3-8%) in water. Treat the spill area with about 10 parts of solution for each part of material spilled and allow it to react for at least ten (10) minutes. Carbon dioxide will be evolved, leaving insoluble polyureas. Slowly stir the isocyanate waste into the decontamination solution, at about 1 part waste to 10 parts solution. Let stand for 48 hours, allowing carbon dioxide to vent away. Neutralize the waste. Neither the solid nor the liquid portion is a hazardous waste under RCRA, 40 CFR 261.

Waste Disposal Method: Recommendations: Use excess product in an alternate beneficial application. Incineration at agency approved waste-disposal facilities. Handle disposal of waste material in accordance with local, state, province and federal regulations.

SECTION 7: HEALTH HAZARD DATA

PRIMARY ROUTE OF ENTRY: Inhalation, Dermal, Eyes, Ingestion.

Effects of Overexposure

Inhalation: Vapors may be irritating to nose and mucus membranes. Respiratory sensitivity may result in asthma-like symptoms and on subsequent exposure even below the TLV. Inhalation of vapors above TLV levels may cause headache, dizziness, nausea, weakness and possible loss of consciousness.
Warning: Odor threshold greater than TLV.

LC (50) Inhal. CASRN 9016-87-9 490 mg/m³ 4Hr. Rat.

Eyes: Contact may cause mild to moderate irritation, redness, tearing and blurred vision. Prolonged contact with vapors may cause corneal damage.

Skin Prolonged or repeated exposure may cause skin irritation, redness, skin damage and possible allergic type symptoms causing rash, itching and hives. Data exists showing that repeated dermal exposure can lead to respiratory sensitization.

Contact: Not expected to be absorbed through skin in sufficient quantity to cause overall increase in toxicity.

Skin

Absorption: **LD(50) DERMAL** CASRN 9016-87-9 6200 mg/kg Rabbit.

Ingestion: Intake can cause gastrointestinal irritation, nausea, vomiting, diarrhea, headache and drowsiness.

LD (50) ORAL CASRN 9016-87-9 > 10 gm/kg Rat.

Chronic: Product does not contain carcinogenic materials as defined by OSHA Hazardous Communications Act 1910.1200.

- Materials are not known mutagenic, teratogenic, or reproductive health hazards.

One scientific study of workers reported that exposure of isocyanates type chemicals resulted in larger declines in lung function compared to other workers.

SECTION 8: FIRST AID

Inhalation: Remove victim from exposure. If difficulty with breathing, administer oxygen. If breathing has stopped, administer artificial respiration, preferably mouth-to-mouth. Seek medical attention.

Eyes: Flush eyes with water, lifting upper and lower lids occasionally for 15 minutes. Seek medical attention.

Skin: Remove contaminated clothing. Irritation: Wash thoroughly with soap and water. If irritation persists seek medical attention. Wash contaminated clothing before reuse.

Ingestion: Do **NOT** induce vomiting; give large quantities of water; get immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquids into lungs. Do **NOT** give anything by mouth to an unconscious person.

SECTION 9: SPECIAL PROTECTION INFORMATION

Ventilation: Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid build up of heavy vapors.

Personal Protection Equipment: Do **NOT**

wear contact lenses when working with this material. Use chemical goggles/safety glasses with side shields and Nitrile/Butyl gloves. Selection of specific items such as boots and apron will depend on operation. Wear respirator protection whenever airborne concentrations exceed TLV or TWA limits. Use NIOSH/OSHA approved respirators equipped with an organic vapor cartridge for listed hazard.

Confined spaces, rooms, or tanks are areas where concern for TLV's is especially important. Reference OSHA Regulation CFR 29 1910.134 for recommended respiratory protection.

SECTION 10: ADDITIONAL INFORMATION

Average Shelf Life: Refer to Product Data Sheet.

Special Instructions: Store below 25 °C (77 °F), use immediately.

REGULATORY INFORMATION:

Title III Section 302: CASRN 101-68-8 RQ: 5000 LB

Title III Section 311/312: Health hazard: Immediate / Delayed

Physical hazard: Reactive

Title III Section 313: CASRN 101-68-8 < 45%

State: California No reportable chemicals.

WHMIS Classification: Class D, Div. 1, Sub B

Class D, Div. 2, Sub A

Class D, Div. 2, Sub B

Canadian Domestic Substance List: All chemicals are listed.

TRANSPORTATION

National Motor Freight classification (NMFC): 149980 Sub: - Class: 55

Description: PAINT AND RELATED MATERIAL

Emergency Response Guide Page No.: NOT REGULATED

DOT Reportable Quantity: >11,100 LB (>5045 KG)

Proper Shipping Name: NOT REGULATED – USE NMFC DESCRIPTION

Marine Pollutant: Not Listed

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[END: Ucrete HF; Part II]

MATERIAL SAFETY DATA SHEET

Ucrete HF

Ucrete HF - Part III

SECTION 1: PRODUCT NAME AND COMPANY IDENTIFICATION

PRODUCT NAME: UCRETE HF – PART III, PIGMENTED
CHEMICAL FAMILY: Hydraulic cement patching compound
REVISION DATE: 07/03/2000
CONTROL NUMBER: 120850

DISTRIBUTOR'S NAME: SUPERIOR EPOXIES & COATINGS, INC.
ADDRESS: 2527 Lantrac Court
Decatur, GA 30035

NON-EMERGENCY PRODUCT INFO: 1-800-543-3516
EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC, 24 Hours)

SECTION 2: HAZARDOUS INGREDIENTS

- EXPOSURE LIMITS* -

HAZARDOUS INGREDIENTS:	CASNO	TLV	STEL	PEL	CONTENT
Silica, Crystalline Quartz **	14808-60-7	***	None	****	70-85%
Portland Cement	65997-15-1	10 mg/M3	None	None	10-25%
Calcium Magnesium Hydroxide	39445-23-3	3 mg/m3*****	None	5 mg/m3	< 6%

- (*) Refer to Section 7 for available LD/LC (50) Health Hazard Data.
(**) Contains less than 0.1% w/w 53 micron or smaller Crystalline Quartz.
(***) 0.1 mg/m3 respirable quartz.
(****) 10 mg/m3 divided by %SiO₂+2 (respirable quartz).
(*****) Particulates NOC – Respirable.

SECTION 3: PHYSICAL DATA

Boiling Point (°C):	N/Av	Water/Oil Distribution Coefficient:	N/Av
Percent VOC (w/w):	0	Solubility in Water:	Slight
Freezing Point (°C):	N/Av	Specific Gravity:	N/Av
Vapor Pressure mmHg @20 (°C):	N/Av	pH:	N/Av
Vapor Density:	> Air	Evaporation Rate:	N/Av
Odor Threshold:	N/Av	Odor:	Odorless

Appearance:	Pigmented Powder		
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N/Av = Not Available N/Ap = Not Applicable ca. = Approximate

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

HMIS Hazard Rating No.0 (Minimal)

Flash Point: Non-combustible

Method: Not Applicable

Auto-Ignition Temperature: Non-combustible

Limits of Flammability: LEL: Not Available, UEL: Not Available

Extinguishing Media: Use extinguishing media suitable for surrounding fires.

Special Fire & Unusual Hazards: None.

SECTION 5: REACTIVITY DATA

HMIS Hazard Rating No. 0 (Minimal)

Stability: Stable. Not sensitive to mechanical impact.

Incompatibility: Strong mineral acids. Hydrofluoric acid slowly dissolves silicon dioxides (Silicon Tetrafluoride, a toxic substance, is formed).

Hazardous Decomposition Products: None known.

Hazardous Polymerization: Will not occur.

SECTION 6: ENVIRONMENTAL AND DISPOSAL INFORMATION

Action to Take for Spills/Leaks: No special procedures are required for cleanup of spills or leaks of this material. Sweep up and return for reuse or discard. Landfill at agency approved waste-disposal facilities.

Waste Disposal Method: Does not contain hazardous chemicals as defined in 40 CFR 260. Handle disposal of waste material in accordance with local, state, province and federal regulation. Landfill agency approved waste disposal facilities.

SECTION 7: HEALTH HAZARD DATA

HMIS Hazard Rating No.3 (Serious)

PRIMARY ROUTE OF ENTRY: Inhalation.

Effects of Overexposure

- Inhalation: May cause irritation to mucous membranes, upper respiratory tract, coughing and labored breathing.
- Eyes: Abrasive action may cause damage to the outer surface of the eye. In combination with water may cause severe irritation with corneal injury.
- Skin Contact: Abrasive action may cause slight to moderate irritation. In combination with water dermal exposure may cause severe alkali burns.
- Skin Absorption: Does not absorb through skin.
- Ingestion: Not likely source of entry due to physical nature of material.
- Chronic: Materials are not known mutagenic, teratogenic, or reproductive health hazards.
- Repeated inhalation of respiratory silica in excess of the TLV over extended periods can result in irreversible fibrosis of the lungs (silicosis). An IARC evaluation concluded that there is sufficient evidence (Group I) that crystalline silica may be carcinogenic to humans.

SECTION 8: FIRST AID

- Inhalation: Remove victim from exposure. If difficulty with breathing, administer oxygen. If breathing has stopped, administer artificial respiration, preferably mouth-to-mouth. Seek medical attention.
- Eyes: Flush eyes with water, lifting upper and lower lids occasionally for 15 minutes. Seek medical attention.

Skin: Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists seek medical attention. Wash contaminated clothing before reuse.

Ingestion: Do **NOT** induce vomiting; give large quantities of water; get immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquids into lungs. Do **NOT** give anything by mouth to an unconscious person.

SECTION 9: SPECIAL PROTECTION INFORMATION

Ventilation: Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid build up of airborne dust concentrations.

Personal Protection Equipment: Do **NOT** wear contact lenses when working with this material. Use safety glasses with side shields and Rubber/Latex gloves. Selection of specific items such as boots and apron will depend on operation. Wear respirator protection whenever airborne concentrations exceed TLV or TWA limits. Use NIOSH/OSHA approved respirators equipped with an organic vapor cartridge for listed hazard.

Confined spaces, rooms, or tanks are areas where concern for TLV's is especially important. Reference OSHA Regulation CFR 29 1910.134 for recommended respiratory protection.

SECTION 10: ADDITIONAL INFORMATION

Average Shelf Life: Refer to Product Data Sheet.

Special Instructions: Store in cool, dry place.

REGULATORY INFORMATION:

Title III Section 302: No reportable chemicals.

Title III Section 311/312: Health hazard: Immediate / Delayed

Physical hazard: None

Title III Section 313: None above deminimis.

State: California This product contains a chemical known to the state of California to cause cancer.

Silica, Crystalline Quartz (Respirable) 14808-60-7 < 0.1%

WHMIS Classification: Class D, Div. 2, Sub A

Class D, Div. 2, Sub B

Class E

Canadian Domestic Substance List: All chemicals are listed.

TRANSPORTATION

National Motor Freight classification (NMFC): 149980 Sub: - Class: 55

Description: PAINT AND RELATED MATERIAL

Emergency Response Guide Page No.: NOT REGULATED

DOT Reportable Quantity: NOT REGULATED

Proper Shipping Name: NOT REGULATED – USE NMFC DESCRIPTION

Marine Pollutant: Not Listed

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[END: Ucrete HF; Part III]

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