

UreKem UA-40, UA-41, & UA-42 Material Safety Data Sheet (MSDS)

Section 1: Identification

Manufacturer: Bayou Innovations, LLC (Owner: UreKem Brand)
Address: 7350 Bayou La Croix Rd
 Bay St Louis, Ms 39520
Products: UA-040, UA-041, UA-042 UreKem Urethane Activators
 Also known as UA-40, UA-41, & UA-42
Prepared By: Regulatory Compliance Manager
24 hour 7 Day Emergency Response: Call ChemTel at 1-800-255-3924 (contract# MIS0007444)
D.O.T. Shipping Name: Paint, Flammable Liquids, UN 1263



Section 2: Hazardous Ingredients

Refer to Section 11 for content information by item.

CODE	INGREDIENT	CAS#	ACGIH TLV (PPM)	OSHA PEL (PPM)	STEL (PPM)	FLASH POINT (TCC/F)	VAPOR PRESSURE (mm Hg)	EMERGENCY PLAN*
1	HOMOPOLYMER OF HDI	28182-81-2	NE	NE	NE	NE	NE	NO
2	HOMOPOLYMER OF IPDI	53880-05-0	NE	NE	NE	NE	NE	NO
3	HDI MONOMER	822-06-0	.005	.02	NE	NE	NE	NO
4	IPDI MONOMER	4098-71-9	NE	NE	NE	NE	NE	NO
5	N-BUTYL ACETATE	123-86-4	150	150	200	81	10 @ 20C	YES
8	LIGHT AROMATIC SOLVENT	64742-95-6	50	50	150	110	1.5 @ 20C	NO
9	1,2,4 TRIMETHYL BENZENE	95-63-6	25	NE	NE	129	7 @ 44C	YES
10	CUMENE	98-82-8	25	25	NE	NE	NE	YES
11	XYLENES	1330-20-7	100	100	150	77	9.5 @ 20C	YES
14	TOLUENE	108-88-3	50	100	150	45	47 @ 20C	YES
15	ETHYL BENZENE	100-41-4	100	100	150	64	7 @ 20C	YES
36	ethyl-3-ethoxy propionate	763-69-9	NE	NE	100	136	1.5 @ 20C	YES
39	LIGHT AROMATIC NAPHTHA	64742-89-8	100	100	NA	50	15 mm @ 100F	YES

*Where yes indicated this ingredient is subject to the reporting requirements of SARA 313 per 40 CFR 372

Section 3: Hazards Identification

Potential Health Effects:

May cause nose and throat irritation. May cause nervous system depression characterized resulting in headache, dizziness, nausea, difficulty in retaining balance, confusion, unconsciousness. Reports have associated repeated and prolonged exposure to solvents with permanent brain damage and nervous system damage. If this product contains or is mixed with an isocyanate activator/hardener, the following health effects may apply; Exposure to isocyanates (items 1-4) may cause respiratory sensitization which may be permanent. Symptoms of isocyanate exposure may be delayed for hours and can include asthma like symptoms such as shortness of breath, wheezing, and coughing. Repeated exposure to isocyanates (items 1-4) may result in permanent reduction of lung function. Individuals with lung or breathing problems or prior reactions to isocyanates must not be exposed to vapors or spray mist of products or blends containing the ingredients (items 1-4).

Ingestion:

May result in gastrointestinal distress.

Skin or Eye Contact:

May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.

Other Potential Health Effects in addition to those listed previously:

Homopolymer of HDI (Ingredient 1)

Exposure to isocyanates (items 1-4) may cause respiratory sensitization which may be permanent. Symptoms of isocyanate exposure may be delayed for hours and can include asthma like symptoms such as shortness of breath, wheezing, and coughing. Repeated exposure to isocyanates (items 1-4) may result in permanent reduction of lung function. Individuals with lung or breathing problems or prior reactions to isocyanates must not be exposed to vapors or spray mist of products or blends containing the ingredients (items 1-4). Potential skin sensitizer that may cause allergic skin reactions and contact dermatitis resulting in severe irritation, dryness, and cracking. Contact with the eyes may cause irritation.

Homopolymer of IPDI (Item 2)

May cause temporary upper respiratory and/or lung irritation with cough, difficult breathing, or shortness of breath. Overexposure may cause asthma like reactions with shortness of breath, wheezing, coughing which may be permanent or permanent loss of lung function and sensitization. This effect may be delayed for several hours. Repeated exposure to isocyanates (items 1-4) may result in permanent reduction of lung function. Individuals with lung or breathing problems or prior reactions to isocyanates must not be exposed to vapors or spray mist of products or blends containing the ingredients (items 1-4). Overexposure may cause permanent damage to the skin and lungs. Asthma, eye disorders, eczema, skin disorders, and respiratory disorders may be aggravated by this ingredient.

HDI Monomer (Item 3)

Exposure to isocyanates (items 1-4) may cause respiratory sensitization which may be permanent. Symptoms of isocyanate exposure may be delayed for hours and can include asthma like symptoms such as shortness of breath, wheezing, and coughing. Repeated exposure to isocyanates (items 1-4) may result in permanent reduction of lung function. Individuals with lung or breathing problems or prior reactions to isocyanates must not be exposed to vapors or spray mist of products or blends containing the ingredients (items 1-4). Potential skin sensitizer that may cause allergic skin reactions and contact dermatitis resulting in severe irritation, dryness, and cracking. Contact with the eyes may cause irritation.

IPDI Monomer (Item 4)

Overexposure may cause damage to lungs and skin. Asthma, eye disorders, eczema, skin disorders, and respiratory disorders may be aggravated by this ingredient.

n-butyl acetate (Item 5)

May cause abnormal liver function. Medical conditions affecting the respiratory system may be aggravated by the ingredient. Rats exposed to this chemical at high airborne levels have exhibited high frequency hearing defects but the significance of this is unknown to man. Levels of this item that were toxic to the mother were also toxic to the fetus.

Light Aromatic Solvent (Item 8)

Pre-existing skin disorders may be aggravated by this chemical. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

Xylene (Item 11)

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: bone marrow, cardiovascular system, central nervous system, kidneys, liver, and lungs. Recurrent overexposure may result in liver and kidney injury. High exposures may produce irregular heartbeats. Canada classifies Xylene as a developmental toxin as high exposures to xylenes in some animal studies have been reported to cause health effects on the developing fetus/embryo. These effects were often at levels toxic to the adult animal. The significance of these effects to humans is not known. Repeated or prolonged skin contact may cause any of the following: irritation, dryness, cracking of the skin.

Toluene (Item 14)

People with preexisting disease of any of central nervous system, kidneys, liver, respiratory system, or skin has increased susceptibility to the effects of this material. This item can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heartbeats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown.

WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

ethylbenzene (Item 15)

Is an IARC, NTP or OSHA carcinogen. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, and lungs. Recurrent overexposure may result in liver and kidney injury. Studies in laboratory animals have shown reproductive, embryotoxic and developmental effects.

WARNING: This chemical is known to the State of California to cause cancer.

Section 4: First Aid Measure

Inhalation:

Move affected people to fresh air immediately. If not breathing give artificial respiration and contact emergency authorities. If symptoms persist or return later contact a physician immediately.

Ingestion:

In the unlikely event of ingestion, DO NOT INDUCE VOMITING. Call a physician or the poison control hotline immediately and have a lot of all ingredients ready.

Skin or Eye Contact:

In case of eye contact immediately flush with copious amounts of water or a designated eye wash solution for at least 15 minutes and call a physician. If skin contact occurs wash the affected area thoroughly with soap and water. If irritation persists contact a physician.

Section 5: Fire Fighting Measures

Flash Point: 77F – 81⁰F (see section 11 for specific values)

Flammability Limits: Lower Flammability Limit – 1.3%
Upper Flammability Limit – N/A

Extinguishing Media: Foam, carbon dioxide (CO₂), and/or dry chemical

Fire Fighting Procedures: Full protective equipment equipped with a self contained fresh air breathing apparatus is recommended. Use water from fog nozzles to cool closed containers of these items.

Fire and Explosion Hazards:

When this product is exposed to air above its flash point vapors may be present and levels sufficient enough to burn or explode given a proper ignition source. Spray mists of this product may be flammable even below its flash point. Furthermore, closed containers of this product exposed to elevated temperatures may be sensitive to rapid release of pressure on opening or rupture of its container. Use caution when working in areas where containers may appear to be bulging or in areas where the temperature of closed containers exceed 120⁰F.

Section 6: Accidental Release Measures

Procedures for cleaning up spills or leaks:

Evacuate non-emergency personnel and isolate the area immediately. Ventilate area and remove sources of ignition. Prevent skin and eye contact and breathing of vapor. Emergency personnel must be outfitted with eye protection, chemical resistant gloves, protective clothing, and the proper respirator for the material released. If material does not contain or is not mixed with an isocyanate activator or hardener (any product containing item 1,2,3, or 4 in section 11) wear a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH approved TC-23C). If the material contains, is mixed with an isocyanate (any product containing item 1,2,3, or 4 in section 11) activator or hardener, or the contents are unknown wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C). Take measures to confine release then cover affected area with dry absorbent. Then, releases containing isocyanate, should be saturated with a solution comprised of 90% water, 5% ammonia solution, and 5% liquid detergent solution and allowed to stand for 15 minutes. Once material has been gathered do not seal container for at least 48 hours to allow CO₂ generated from neutralization to escape. Do not allow material to enter drains or touch soil at any point. Dispose of material according to local regulations.

SECTION 7. Handling and Storage

Precautions to be taken in handling:

VAPORS MAY IGNITE EXPLOSIVELY OR CAUSE FLASH FIRE. KEEP PRODUCT AND VAPORS AWAY FROM ANY POTENTIAL OR KNOWN IGNITION SOURCES INCLUDING POSSIBLE STATIC DISCHARGE SOURCES SUCH BUT NOT LIMITED TO SPARKS, AND OPEN FLAMES,. Vapors may spread long distances. Prevent buildup of vapors. Close container after each use. Ground containers when pouring. Wash thoroughly after handling and before eating or smoking. Do not store above 120 deg F. When transferring to another container make sure container is properly labeled to identify the hazards of the product. KEEP AWAY FROM CHILDREN.

Other precautions:

If material has dried to a solid form such as its final form of a coating do not sand, abrasive blast, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, protective eye wear, and gloves.

SECTION 8. Personal Protection

Ventilation:

Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits. Ventilation should be equipped with filters of high efficiency to reduce exposure to the general public. Explosion proof ventilation at the floor level is most effective.

Respiratory protection:

Do not breathe vapors or mists. This product contains isocyanates or is used with an isocyanate activator/hardener, wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C) while mixing activator/hardener with paint, during application and until all vapors and spray mist are exhausted. Follow respirator manufacturer's directions for respirator use. Do not permit anyone without protection in any area where spray mists or vapor exists. Individuals with history of lung or breathing problems or prior reaction to isocyanates should not use or be exposed vapor or spray mist if product contains or is mixed with isocyanate activators/hardeners.

Eye protection:

Goggles are preferred while handling product to prevent splashes into the eyes or vapors and spray mists from irritating the eyes. If safety glasses are substituted include splash guards or side shields.

Skin and body protection:

Chemical resistant gloves and coveralls are recommended when handling or spraying this material.

Section 9: Physical Data

Evaporation Rate:	Slower than ether	Vapor Density:	Heavier than air
Solubility in water:	none to slight	Volatiles by Volume:	45%-100%
Boiling Range:	Not Available	volatiles by weight	42%-100%
Density:	8.2-8.5 lbs/gallon	Specific Gravity:	.98 – 1.01
VOC:	See section 11 for details		

Section 10: Stability and Reactivity

Stability

Products containing isocyanate (contains items 1,2,3, or 4 as shown in Section 11) either as part of its composition or the composition of a hardener or activator that may have been added may slowly generate carbon dioxide (CO₂) gas when exposed to water or moisture. If exposure to moisture or water is expected to do reseal containers to prevent pressure build up.

Sensitivity to Static Discharge

Products used above their flash point or spray mist from products are sensitive to static ignition sources and could explode in the presence of a static spark. Bonding and grounding should be used when transferring material.

Incompatibility (Materials to avoid): None reasonably foreseeable.

Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide, Smoke, and other harmful gases may be liberated on combustion.

Hazardous Polymerization: Will not occur.

Sensitivity to Mechanical Impact: None Known

Section 11: Product Codes and Information

Refer to section 2 & 3 for specific ingredient (ingredient number identified in hazardous ingredient column) hazards and recommended maximum exposure levels.

PRODUCT CODE	HAZARDOUS INGREDIENTS (WT%)	FLASH POINT (TCC/F)	NFPA H-F-R	OSHA FLAMM. CLASS	D.O.T PACKING GROUP	REGULATORY VOC (LBS/GAL)	Wt% EXEMPTS	PHOTO-CHEMICAL REACTIVITY	NOTES
UA-40 (AKA UA-040)	1) 30-40%, 5) 15-20%, 2) 15-20%, 36) 0-10%, 11) 0-5%, 8) 0-2% 15) 0-1%, 3) 0-1%, 4) 0-1%	77	2-3-1	IC	III	3.51 lbs/gal	0	Yes	A,B
UA-41 (AKA UA-041)	1) 30-40%, 5) 15-20%, 2) 15-20%, 36) 0-10%, 11) 0-5%, 15) 0-1%, 3) 0-1%, 4) 0-1%	79F	2-3-1	IC	III	3.49 lbs/gal	0	Yes	A,B
UA-42 (AKA UA-042)	1) 30-40%, 5) 15-20%, 2) 15-20%, 36) 5-15%, 8) 0-10%, 11) 0-5%, 15) 0-1%, 3) 0-1%, 4) 0-1%	81F	2-3-1	IC	III	3.47 lbs/gal	0	Yes	A,B

* - See section 2 and 3 for specific ingredient information and hazards.

A - Subject to the reporting requirements of section 313 of the emergency planning and right to know act of 1986 and of 40 CFR 372

B - This product contains a chemical known to the state of California to cause cancer.

Section 12: Regulatory List

TSCA Compliance: All components in these products are either listed on the TSCA inventory or are exempt from listing.

Canadian DSL: All components in these products are either listed on the Canadian DSL or below the threshold for registration.

Section 13. Other Information

Acronyms and General Definitions:

ACGIH – American Conference of Governmental Industrial Hygienist

ANSI – American National Standards Institute

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

CFR – Code of Federal Regulations

DOT – Department of Transportation

OSHA – Occupational Safety and Health Administration

IARC – International Agency for Research on Cancer

NIOSH – National Institute of Occupational Safety and Health

NTP – National Toxicology Program

IATA – International Air Transport Association

IMO – International Maritime Organization;

PEL – Permissible Exposure Limit

STEL – Short Term Exposure Limit

TLV – Threshold Limit Value

TWA – Time Weighted Average

TCC – Tag Closed Cup

VOC – Volatile Organic Content

HAPS – Hazardous Air Polluting Solvents;

mg/m³ – milligrams per cubic meter;

mm – millimeters;

PPM – parts per million;

PPT – parts per thousand;

SARA – Superfund Amendments and Reauthorization Act