



MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	UNIAROM® TX 100 IF	
SYNONYM	Light Aromatic Solvent Naphtha	
CAS REGISTRY NUMBER	64742-95-6	
CHEMICAL FAMILY	Aromatic Hydrocarbon	
COMPANY IDENTIFICATION	UniSource Energy, Inc. 245 W. Roosevelt Road, Building 14, Suite 145 West Chicago, IL 60185 Phone: 630-231-7990 Fax: 630-231-8036	
EMERGENCY TELEPHONE NUMBERS	UniSource Energy, Inc. 1-800-444-5510	CHEMTREC 1-800-424-9300

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

CAS Number	Material or Component	% By Weight
95-63-6	1,2,4-TRIMETHYLBENZENE	10 – 35
620-14-4	1-METHYL-3-ETHYLBENZENE	10 – 20
108-67-8	1,3,5-TRIMETHYLBENZENE	5 – 10
611-14-3	1-METHYL-2-ETHYLBENZENE	3 – 9
622-96-8	1-METHYL-4-ETHYLBENZENE	3 – 9
526-73-8	1,2,3-TRIMETHYLBENZENE	3 – 7
103-65-1	n-PROPYLBENZENE	3 – 7
95-47-6	ORTHO-XYLENE	2 – 6
98-82-8	CUMENE	1 – 2
108-38-3	META-XYLENE	0.2 – 1
106-42-3	PARA-XYLENE	0.1 – 0.5
100-41-4	ETHYLBENZENE	<0.5
108-88-3	TOLUENE	<0.1
71-43-2	BENZENE	<0.1

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

COMBUSTIBLE LIQUID AND VAPOR.
 VAPOR MAY CAUSE FLASH FIRE.
 MAY BE HARMFUL IF INHALED.
 MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
 MAY BE HARMFUL OR FATAL IF SWALLOWED.
 ASPIRATION HAZARD IF SWALLOWED – CAN ENTER LUNGS AND CAUSE DAMAGE.
 MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: LUNGS, CENTRAL NERVOUS SYSTEM, DIGESTIVE SYSTEM, RESPIRATORY TRACT, SKIN, EYES.

ROUTES OF ENTRY: Absorbed through dermal contact, eye contact, inhalation, ingestion.

POTENTIAL ACUTE HEALTH EFFECTS

Eyes: May cause eye irritation with tearing, redness, stinging, blurred vision.

Skin: May cause skin irritation with inflammation, reddening, itching, scaling, or, occasionally, blistering.

Inhalation: Breathing high concentrations can cause respiratory tract irritation, nausea, headaches, excitation, euphoria, drowsiness, dizziness, light-headedness, blurred vision, fatigue, incoordination, tremors, convulsions, coma, respiratory arrest, and other central nervous system effects.



Ingestion: May cause irritation of mouth, throat, and gastrointestinal tract. If swallowed, aspiration into lungs may result in chemical pneumonitis and severe pulmonary injury.

POTENTIAL CHRONIC HEALTH EFFECTS

Chronic overexposure to this material may cause systemic toxicity, including adverse reactions to the following: kidney, liver, spleen, adrenals, lungs, skin, blood, testes, cardiovascular and nervous systems.

Carcinogenic Effects

Ethylbenzene:

Classified A3 (Proven for animals) by ACGIH

Classified 2B (Possible for humans) by IARC

Classified None by OSHA

Mixture may contain other minor (less than 0.1%) components that may be known to cause cancer.

Mutagenic Effects

Not available.

Teratogenic Effects

Mixture may contain other minor (less than 0.1%) components that may cause adverse reproductive and/or developmental effects.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE

Repeated exposure to a highly toxic material may produce deterioration of health by an accumulation in one or many human organs.

OVEREXPOSURE/SIGNS/SYMPTOMS

Prolonged or repeated exposure to this product can cause central nervous system effects and irritation to the eyes, skin, and respiratory tract. Frequent skin contact can remove skin oils, resulting in dermatitis.

(See Toxicological Information – Section 11)

SECTION 4

FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water while holding eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. If irritation occurs, get immediate medical attention.

SKIN CONTACT: Wash contact areas immediately with soap and water. Remove contaminated clothing and place in closed container for storage until laundered or discarded. Thoroughly clean contaminated clothing before reuse.

INHALATION: Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.

INGESTION: DO NOT induce vomiting; aspiration into lungs may cause chemical pneumonia and severe lung damage. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Seek immediate medical attention.

NOTES TO PHYSICIAN: If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

SECTION 5

FIRE FIGHTING MEASURES

FLAMMABILITY CLASS: II Combustible

FLASH POINT: Closed Cup: 41.7°C (107.1°F) (Tagliabue)

AUTO-IGNITION TEMPERATURE: > 400°C

FLAMMABLE LIMITS: LOWER: 1% UPPER: 7%

PRODUCTS OF COMBUSTION: May produce incomplete combustion products (COx, NOx, SOx).

FIRE HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES

Combustible in presence of open flames, sparks, and heat. Vapors are flammable and may travel across the ground reaching remote ignition sources causing a flashback fire danger.

EXPLOSION HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES

Possible risk of explosion of the product in presence of static discharge or extreme heat.

EXTINGUISHING MEDIA

Use water fog or spray, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

FIRE FIGHTING INSTRUCTIONS

Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Use water spray to cool fire exposed surfaces and to protect personnel.

Small Fire: Use DRY chemical powder, halon, and CO₂.

Large Fire: Use water spray, fog or foam. DO NOT use water jet.

PROTECTIVE CLOTHING (FIRE)

Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear (Bunker gear).

**NFPA HAZARD ID**

Health: 2 Fire Hazard: 2 Reactivity: 0 Special Notice: None

HMIS HAZARD ID

Health: 2 Flammability: 2 Physical Hazard : 0

SECTION 6 ACCIDENTAL RELEASE MEASURES**NOTIFICATION PROCEDURES**

U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. Report spills to local authorities and/or the National Response Center at (800) 424-8802 as appropriate or required.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding area. Eliminate all (potential) sources of ignition in the vicinity of the spill or released vapor. Handling equipment must be grounded to prevent sparking.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if it can be done without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Water Spill: Stop leak if it can be done without risk. Confine the spill immediately with booms. Warn other vessels. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Contain spill and safely stop the flow, warning personnel to stay away. Eliminate all sources of ignition and ventilate. Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. Water spray may reduce vapor, but may not prevent ignition in closed spaces. Recover with appropriate pumping equipment or with suitable absorbent.

Small Spills: Absorb with an inert material such as clay or sand. Place in appropriate non-leaking container. Seal tightly for proper disposal.

Note: Local regulations may prescribe or limit action to be taken.

SECTION 7 HANDLING AND STORAGE**HANDLING**

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Keep away from incompatibles such as oxidizing agents. DO NOT ingest. Do not breathe gas, fumes, vapor, or spray. Do not eat, drink or smoke in areas of use or storage. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately, showing them the container or the label. Avoid contact with skin and eyes. Use good personal hygiene practices. Wash thoroughly after handling this product.

STORAGE

Combustible materials should be stored in a separate labeled safety storage cabinet or room. Keep away from heat and all possible sources of ignition. Keep container tightly closed and dry. Keep in a cool and well-ventilated area. Ground all equipment containing material. Empty containers may contain material residue; do not reuse without adequate precautions. Do not eat, drink or smoke in areas of use or storage. All efforts should be made to prevent any leaks or spills. Storage tanks containing this product should be engineered to prevent contact with water resources, as this material could contaminate the water resources. Surface spills can reach groundwater through porous soil or cracked surfaces. The storage tanks should be monitored regularly for leaks. Where spills or leaks are possible, a comprehensive response plan should be developed and implemented.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**ENGINEERING CONTROLS**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

PERSONAL PROTECTION

Eyes: Safety glasses with side shields.

Body: Flame retardant clothing covering the entire body.



Respiratory: Use a MSHA/NIOSH approved respirator or equivalent at high concentrations.

Hands: Chemical resistant gloves if contact is possible.

Feet: Safety slip-proof shoes in areas where spills or leaks can occur.

PROTECTIVE CLOTHING

Splash goggles, Full suit, Vapor respirator, Boots, Gloves.

A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

THRESHOLD LIMIT VALUE: No Threshold Limit Value (TLV) or Permissible Exposure Limit (PEL) has been published for this material. Some specific components may have established exposure limits (see below). The best practice is to maintain concentrations of all atmospheric contaminants as low as practical using engineering controls and work rules. Appropriate personal protective equipment may be used for additional protection of the worker from exposure. For application of TLV's or PEL's consult an industrial hygienist.

Material or Component	Exposure Limits
1,2,4-TRIMETHYLBENZENE	ACGIH TLV (US, 1/06) TWA: 25 ppm 8 hours
1-METHYL-3-ETHYLBENZENE	Not established
1,3,5-TRIMETHYLBENZENE	ACGIH TLV (US, 1/06) TWA: 25 ppm 8 hours
1-METHYL-2-ETHYLBENZENE	Not established
1-METHYL-4-ETHYLBENZENE	Not established
1,2,3-TRIMETHYLBENZENE	ACGIH TLV (US, 1/06) TWA: 25 ppm 8 hours
n-PROPYLBENZENE	Not established
ORTHO-XYLENE	ACGIH TLV (US, 1/06) TWA: 100 ppm 8 hours (all forms) OSHA PEL (US 8/97) TWA: 100 ppm 8 hours (all forms)
CUMENE	ACGIH TLV (US, 1/06) TWA: 50 ppm 8 hours (all forms) OSHA PEL (US 8/97) TWA: 50 ppm 8 hours (all forms)
META-XYLENE	ACGIH TLV (US, 1/06) STEL: 150 ppm 15 minutes (all forms) TWA: 100 ppm 8 hours (all forms) OSHA PEL (US 8/97) TWA: 100 ppm 8 hours (all forms)
XYLENE	ACGIH TLV (US, 1/06) STEL: 150 ppm 15 minutes (all forms) TWA: 100 ppm 8 hours (all forms) OSHA PEL (US 8/97) TWA: 100 ppm 8 hours (all forms)
ETHYLBENZENE	ACGIH TLV (US, 1/08) STEL: 125 ppm 15 minutes TWA: 100 ppm 8 hours OSHA PEL (US 11/06) TWA: 100 ppm 8 hours
TOLUENE	ACGIH TLV (US, 1/07) TWA: 20 ppm 8 hours OSHA PEL Z2 (US 11/06) AMP: 500 ppm 10 minutes CEIL: 300 ppm TWA: 200 ppm 8 hours
BENZENE	ACGIH TLV (US, 1/05) Skin STEL: 2.5 ppm (8 mg/m ³) 15 minutes (all forms) TWA: 0.5 ppm (1.6 mg/m ³) 8 hours (all forms) OSHA PEL (US, 8/97) STEL: 5 ppm 15 minutes (all forms) TWA: 1 ppm 8 hours (all forms)



Consult local authorities for acceptable exposure limits.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE AND APPEARANCE: Liquid
ODOR: Aromatic
COLOR: Clear
BOILING/CONDENSATION PT: 148 to 177°C (299 to 351°F)
SPECIFIC GRAVITY: 0.86 to 0.88 (Water=1)
VAPOR PRESSURE: < 10 mm Hg @ 20°C
VAPOR DENSITY: 3.5 (Air=1)
VOLATILITY: 100% (v/v)
EVAPORATION RATE: Not available
VOC: 100%
SOLUBILITY IN WATER: Negligible

SECTION 10 STABILITY AND REACTIVITY

STABILITY AND REACTIVITY: The product is stable under normal conditions.
CONDITIONS TO AVOID: Open flames and high energy ignition sources.
INCOMPATIBILITY WITH VARIOUS SUBSTANCES: Extremely reactive/ incompatible with oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: May produce incomplete combustion products (COx)
HAZARDOUS POLYMERIZATION: No

SECTION 11 TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE: Inhalation, ingestion, skin, eye contact.

TOXICITY TO ANIMALS

Acute oral toxicity (LD50): 1400 mg/kg [Rat] (Cumene)
Acute oral toxicity (LD50): 5000 mg/kg [Rat] (1,2,4-Trimethylbenzene)

CHRONIC EFFECTS ON HUMANS

The substance is toxic to Lungs, Central Nervous System, Digestive System, Upper Respiratory Tract, Skin, Eyes.

OTHER TOXIC EFFECTS ON HUMANS

May be irritating to eyes, skin and respiratory system. Aspiration hazard if swallowed. Can enter lungs and cause damage.

(See Section 3 – Hazards Identification)

SPECIAL REMARKS ON CHRONIC EFFECTS ON HUMANS

Chronic overexposure to this material may cause systemic toxicity, including adverse reactions to the following: Kidney, Liver, Spleen, Adrenals, Lungs, Skin, Blood, Testes, Cardiovascular and Nervous System.

TOXICOLOGICAL DATA

CUMENE: Repeated inhalation exposure of cumene vapor produced damage in the kidney of male rats only. These effects are believed to be species specific and are not relevant to humans.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.

MOBILITY: Constituents are expected to partition between air, water, and soil.

SPECIAL REMARKS ON THE PRODUCTS OF BIODEGRADATION: Constituents are expected to biodegrade.

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Disposal can occur only in properly permitted facilities in accordance with federal, state, and local regulations.

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete. This material, when discarded or disposed of, may be a hazardous waste according to Federal Regulations (40 CFR 261). Under the Resource Conservation and



Recovery Act (RCRA), it is the responsibility of the user of the material to characterize and determine, at the time of disposal, whether the material is a hazardous waste subject. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authorities.

Consult your local or regional authorities.

SECTION 14	TRANSPORT INFORMATION
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U.S. DOT CLASSIFICATION FOR BULK SHIPMENTS

Proper Shipping Name: Petroleum Distillates, n.o.s. (contains Xylenes, Cumene)

Hazard Class & Division: Combustible Liquid -- Flash Point > 37.8°C (100°F)

UN/NA Number: 1268

Packing Group: III

USCG PROPER SHIPPING NAME: Naphtha: Aromatic

MARINE POLLUTANT: Not listed in Appendix B to 49 CFR 172.101

HAZARDOUS SUBSTANCES REPORTABLE QUANTITY: Cumene: 5,000 lbs.

Xylene (mixed isomer): 100 lbs.

SPECIAL PROVISIONS FOR TRANSPORT: See codes as shown in 49 CFR 172.101 Column 7

TDG CLASSIFICATION: Class 3: Flammable Liquid

ADR/RID CLASSIFICATION: Not available

IMO/IMDG CLASSIFICATION: Class 3: Flammable Liquid

ICAO/IATA CLASSIFICATION: Class 3: Flammable Liquid

SECTION 15	REGULATORY INFORMATION
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U.S. FEDERAL REGULATIONS

TSCA: TSCA 4(a) final test rules: 1,2,3-TRIMETHYLBENZENE; XYLENE

TSCA 8(a) chemical risk rules: XYLENE

TSCA 8(a) PAIR: XYLENE

TSCA 8(b) inventory: All components are listed or exempted.

TSCA 8(d) H and S data reporting: XYLENE

TSCA 12(b) one-time export: 1,2,3-TRIMETHYLBENZENE; N-PROPYLBENZENE;
XYLENE

SARA 301/302/303

No chemicals in this product are listed as extremely hazardous substances in 40 CFR 355, Emergency Planning and Notification (Appendix A to Part 355).

SARA 304

The following chemicals in this product require reporting under the requirements of 40 CFR 355, Emergency Planning and Notification (SARA Extremely Hazardous Substances listed in Appendix A to Part 355 or CERCLA Hazardous Substances listed in Table 302.4 of 40 CFR Part 302):

XYLENE; CUMENE; ETHYLBENZENE

SARA 311/312

The following chemicals in this product require reporting under the requirements of 40 CFR 370, Hazardous Chemical Reporting: Community Right-To-Know. The hazard category for each chemical is also listed.

Chemical Name	Immediate Hazard	Delayed Hazard	Fire Hazard	Pressure Hazard	Reactivity Hazard
1,2,4-TRIMETHYLBENZENE	-	X	X	-	-
1,3,5-TRIMETHYLBENZENE	X	-	X	-	-
1,2,3-TRIMETHYLBENZENE	-	-	X	-	-
n-PROPLYBENZENE	-	-	X	-	-
o-XYLENE	X	X	X	-	-
CUMENE	X	-	X	-	-



SARA 313 SUPPLIER NOTIFICATION

This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372 – Table 372.65):

Product Name	CAS Number	Concentration (%)
1,2,4-TRIMETHYLBENZENE	95-63-3	10 - 35
o-XYLENE	95-47-6	2 - 6
CUMENE	98-82-8	1 - 2
ETHYLBENZENE	100-41-4	0 – 0.5
m-XYLENE	108-38-3	0.2 – 1

CLEAN WATER ACT (CWA)

CWA 307: No products were found.

CWA 311: XYLENES

CLEAN AIR ACT (CAA) 112

Accidental Release Prevention: No products were found

Regulated Flammable Substances: No products were found

Regulated Toxic Substances: No products were found

INTERNATIONAL REGULATIONS

CANADA

WHMIS: Class B-3: Combustible liquid having a flash point between 37.8°C (100°F) and 93.3°C (200°F).

Class D-2B: Material causing other toxic effects (Toxic).

CEPA Toxic Substances: None of the components are listed.

Canadian ARET: None of the components are listed.

Canadian NPRI: The following components are listed:

1,2,4-TRIMETHYLBENZENE; XYLENE; CUMENE

CEPA DSL/NDL: Not determined

Additional information may be available upon request.

EUROPE

EINECS: Not available

DSCL (EEC): R65 – Harmful: May cause lung damage if swallowed.

INTERNATIONAL LISTS

Australia Inventory (AICS): All components are listed or exempted.

China Inventory (IECSC): All components are listed or exempted.

Japan Inventory (ENCS): Not determined

Japan Inventory (ISHL): Not determined.

Korea Inventory (KECI): All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines Inventory (PICCS): All components are listed or exempted.

STATE REGULATIONS

California Prop. 65 (no significant risk level): This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproductive harm:

ETHYLBENZENE; TOLUENE; BENZENE

The following components are listed as hazardous substances by some states in the U.S.:

PSEUDOCUMENE; TRIMETHYLBENZENE; PROPYLBENZENE; MESITYLENE;

o-XYLENE; CUMENE; 1,3,5-TRIMETHYLBENZENE; ETHYLBENZENE;

1-METHYLETHYLBENZENE; 1,2-DIMETHYLBENZENE

Please consult with local state agencies for regulatory compliance.

Additional information is available upon request.

**SECTION 16****OTHER INFORMATION****REVISIONS**

This Material Safety Data Sheet (MSDS) has been created to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-1998).

Section 15: Canadian Inventory Lists and Regulations**LABEL REQUIREMENTS**

COMBUSTIBLE LIQUID AND VAPOR.

VAPOR MAY CAUSE FLASH FIRE.

MAY BE HARMFUL IF INHALED.

MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

MAY BE HARMFUL OR FATAL IF SWALLOWED.

ASPIRATION HAZARD IF SWALLOWED – CAN ENTER LUNGS AND CAUSE DAMAGE.

MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: LUNGS, CENTRAL NERVOUS SYSTEM, DIGESTIVE SYSTEM, RESPIRATORY TRACT, SKIN, EYES.

DATE PREPARED: NOVEMBER 2009**UNIAROM® TX 100 IF**

The information presented herein has been compiled from sources considered to be dependable and is accurate as of the date of preparation of this Material Safety Data Sheet. However, Seller does not assume any liability whatsoever for the 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. In addition, no responsibility can be assumed by the Seller for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the material. Seller assumes no responsibility for injury to Buyer or to third persons or any damage to any property. Buyer assumes all such risks.