SAFETY DATA SHEET

SECTION 1.0 PRODUCT AND COMPANY IDENTIFICATION

Product form Mixture

Product Identifier UNIAROM® SX 150 IF

Other means of identification Mixed heavy aromatics

CAS Number 64741-67-9

Recommended use Solvent

Manufacturer/Importer/Supplier/Distributor Information

UniSource Energy, Inc.
40 Shuman Blvd, Suite 290
Naperville, IL 60563

E-mail orders@unisource-energy.com

Telephone number Phone: 630-470-6030 Fax: 630-470-6031

Emergency telephone number

UniSource Energy, Inc.
1-800-444-5510

CHEMTREC
1-800-424-9300

SECTION 2.0 HAZARD(S) IDENTIFICATION

Classification (GHS-US)

Flammable liquids Category 4

Acute toxicity (inhalation: vapor) Category 4

Carcinogenicity Category 2

Specific target organ toxicity (single exposure) Category 3 - Narcotic effects

Specific target organ toxicity (single exposure) Category 3 - Respiratory irritation

Specific target organ toxicity (single exposure) Category 1

Specific target organ toxicity (repeated exposure) Category 1

Aspiration hazard Category 1

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GHS label elements

Signal word **Danger**

Hazard statement

Combustible liquid
May be fatal if swallowed and enters airways
Harmful if inhaled
May cause respiratory irritation
May cause drowsiness or dizziness
Suspected of causing cancer
Causes damage to organs (blood, eye)
Causes damage to organs (eye, lung, nose) through prolonged or repeated exposure

Precautionary statement

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, open flames, sparks. - No smoking. Do not breathe gas, fume, vapors, spray, mist. Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear eye protection, flame retardant protective clothing, and impermeable protective gloves If swallowed: Immediately call doctor, poison center. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. Specific treatment (see Section 4.1 of SDS or information on this label). If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. In case of fire: Use carbon dioxide (CO2), dry chemical, foam, Water spray to extinguish. Store in a well-ventilated place. Keep container tightly closed. Keep Cool. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazard(s) not otherwise classified (HNOC)

Product can accumulate electrostatic charges that may cause fire by electrical discharges.

Unknown acute toxicity (GHS-US)

Not applicable

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Additional information

Based on conditions common to industrial workplace use of this product

May cause mild eye irritation.
May cause mild skin irritation.

SECTION 3.0 — COMPOSITION/INFORMATION ON INGREDIENTS

Substance Not applicable

Mixture

Ingredient Name	%	CAS number
Aromatic Hydrocarbons (C10) not including naphthalene	0 -50	-
Aromatic hydrocarbons (C8 - C9)	0 - 30	-
Aromatic Hydrocarbons (C11 - C14)	0 - 30	-
Aromatic hydrocarbons (C15+)	0 - 20	-
Naphthalene	5 - 15	-91-20-3
1,2,4-trimethylbenzene	0 - 5	-95-63-6
1,2,3-Trimethylbenzene	0 - 5	526-73-8
Polycyclic Aromatic Compounds	<= 0.5	130498-29-2

SECTION 4.0 — FIRST AID MEASURES

Description of necessary first aid measures

First –aid General Measures Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Suspected of causing cancer.

Eye contact Rinse immediately with plenty of water. Obtain medical attention if irritation persists.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration.

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Skin contact	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
	.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.
Most important symptoms, acute and delayed	
Inhalation	May cause respiratory irritation.
Ingestion	May be fatal if swallowed and enters airways.
Indication of immediate medical attention and special treatment needed	Treat symptomatically

SECTION 5.0 FIRE-FIGHTING MEASURES

Suitable extinguishing media	Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream
Specific hazards arising from the chemical	Combustible liquid. May form flammable/explosive vapor-air mixture.
Advice for firefighters	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6.0 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Emergency procedures	.
Non-emergency personnel	Evacuate unnecessary personnel
Emergency responders	Ventilate area.

Methods and materials for containment and cleaning up

For containment	Dike for recovery or absorb with appropriate material. Do not contaminate ground and surface water.
Methods for cleaning up	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

See section 8. Exposure controls/personal protection

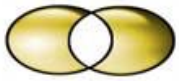
SECTION 7.0 HANDLING AND STORAGE

Personal precautions, protective equipment and emergency procedures

Additional hazards when processed	Handle empty containers with care because residual vapors are flammable. Keep away from heat, sparks, open flames, hot surfaces. - No smoking.
Precautions for safe handling	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No bare lights. No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing vapors, mist. Use only outdoors or in a well-ventilated area.

Conditions for safe storage, including any incompatibilities

Technical measures	Proper grounding procedures to avoid static electricity should be followed. All efforts should be made to prevent any leaks or spills. Storage tanks 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.
Storage conditions	Keep only in the original container in a cool, well ventilated place away from: Direct sunlight, flames, heat sources, sparks. Keep in fireproof place. Keep container tightly closed .



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Incompatible products	Strong bases. Strong acids. Strong oxidizing agents. Strong reducing agents.
Incompatible materials	. Sources of ignition. Direct sunlight. Heat sources.

SECTION 8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Naphthalene (91-20-3)

USA ACGIH	ACGIH TWA (ppm)	10 ppm
USA ACGIH	ACGIH STEL (ppm)	15 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	50 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm

Engineering Controls

Appropriate Engineering Controls	Ensure adequate ventilation
Personal protective equipment	Avoid all unnecessary exposure.
Hand protection	Impermeable protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection	Chemical goggles or safety glasses.
Skin and body protection	Wear fire/flame resistant/retardant clothing.
Respiratory protection	An approved organic vapor respirator/supplied air or self-contained breathing apparatus must be used when vapor concentration exceeds applicable exposure limits.
Other information	Do not eat, drink or smoke during use.

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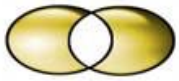
SECTION 9.0	PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Pale yellow or light brown oily liquid
Color	Colorless
Odor	Characteristic, aromatic
Odor threshold	No data available
pH	Not applicable
Relative evaporation rate (butyl acetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	190 (190 – 360) °C
Flash point	65 - 72 °C Closed cup
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapor Pressure	≤ 1 mm Hg @ 20°C Reid Vapor Pressure
Relative vapor density at 20 °C	>=4.5 (Air = 1)
Relative density	0.9
Solubility	Water: Negligible.
Log Kow	No data available
Viscosity, kinematic	< 20 cSt @ 40°C
Viscosity, dynamic	No data available
Explosive limits	1 – 7 volume %le
VOC content	100 %

SECTION 10.0	STABILITY AND REACTIVITY

Reactivity	Combustible liquid.



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Chemical stability	Stable at ambient temperature and under normal conditions of use.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous polymerization will not occur .
Conditions to avoid	Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks .
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents. Strong reducing agents.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions: carbon monoxide, carbon dioxide, toxic fumes.

SECTION 11.0 TOXICOLOGICAL INFORMATION

Likely routes of exposure	Eye contact, Skin contact, Ingestion, Inhalation
Acute toxicity	Inhalation: vapor: Harmful if inhaled.
UNIAROM® SX 150 IF (64741-67-9)	
LD50 oral rat	> 2000 mg/kg Bridging principle "Substantially similar mixtures"
LD50 dermal rat	> 5000 mg/kg Bridging principle "Substantially similar mixtures
LC50 inhalation rat	> 5 mg/l/4h Bridging principle "Substantially similar mixtures
ATE US (vapors)	18.220 mg/l/4h
1,2,4-Trimethylbenzene (95-63-6)	
LD50 oral rat	5000 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
LC50 inhalation rat	18 mg/l/4h
1,2,3-Trimethylbenzene (526-73-8)	
LD50 oral rat	5000 mg/kg Based on 1,2,4-trimethylbenzene
LD50 dermal rabbit	> 3160 mg/kg Based on 1,2,4-trimethylbenzene
LC50 inhalation rat	10.2 mg/l/4h Based on a mixture of trimethylbenzenes

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Naphthalene (91-20-3)

LD50 oral rat	490 mg/kg
LD50 dermal rabbit	> 20 g/kg
LC50 inhalation rat	> 340 mg/m³ (Exposure time: 1 h)

Aromatic hydrocarbons (C8 - C9) (-)

LC50 inhalation rat	18 mg/l/4h Based on 1,2,4-trimethylbenzene

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Suspected of causing cancer

Polycyclic Aromatic Compounds (130498-29-2)	
National Toxicology Program (NTP) Status	2 - Reasonably anticipated to be Human Carcinogen
Additional information	**This product may contain polycyclic aromatic hydrocarbons, PAHs (also called polynuclear aromatics, PNAs or Aromatic Hydrocarbons, polycyclic), some of which are suspected of causing skin cancer in humans under conditions of poor personal hygiene and prolonged, repeated contact. Wear chemically impervious gloves. Always wash skin with soap and water after skin contact.**
Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Reasonably anticipated to be Human Carcinogen
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness. May cause respiratory irritation. Causes damage to organs (blood, eye).
Specific target organ toxicity (repeated exposure)	Causes damage to organs (eye, lung, nose) through prolonged or repeated exposure.

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UNIAROM® SX 150 IF (64741-67-9)

NOAEL (oral,rat,90 days)	300 mg/kg bodyweight/day
Aspiration hazard	May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	Irritation of the respiratory tract. Drowsiness. Dizziness.

SECTION 12.0 ECOLOGICAL INFORMATION

Toxicity

Ecology - general	Constituents of this type of aromatic solvent are expected to partition between air, water, and soil.
Persistence and Degradability	Constituents of this type of aromatic solvent are expected to biodegrade.
Bioaccumulative Potential	Not established.
Mobility in Soil	No additional information available
Other Adverse Effects	Avoid release to the environment.

SECTION 13.0 DISPOSAL CONSIDERATIONS

Waste disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents and container in accordance with all local, regional, national and international regulations
Additional information	Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials	Avoid release to the environment. Hazardous waste due to toxicity.

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SECTION 14.0	TRANSPORT INFORMATION

U.S. Transportation (DOT) for Bulk Shipments (Non-Bulk Shipments May Differ)

Transport document description	UN1268, Petroleum distillates, n.o.s., Combustible Liquid, PGIII
UN or NA Number	UN1268
Proper Shipping Name	Petroleum distillates, n.o.s.
Primary Hazard Class	Combustible Liquid - see 49 CFR 173.150(f)
Packing Group	PGIII
Hazard labels	
Emergency Response Guide (ERG) Number	128

In accordance with the definition in 49 CFR § 171.8, a hazardous substance does not include petroleum, including crude oil or any fraction thereof which is not other specifically listed or designated as such in Appendix A to 49 CFR § 172.101. Therefore, this product does not require a RQ designation..

International Maritime Dangerous Goods (IMDG)

Not evaluated

Transport in bulk according to Annex II of MARPOL, 73/78 and the IBC code

Product name	Poly(2+)cyclic aromatics (UNIAROM® SX 150 IF)
Pollution category	X
Ship type	2
Cargo name listed in 46 CFR 30.25, Table 30.25-1	Poly(2+)cyclic aromatics
Cargo name listed in 46 CFR 153, Table 1	Poly(2+)cyclic aromatics

International Air Transport Association (IATA)

Not evaluated

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SECTION 15.0	REGULATORY INFORMATION

US Federal regulations

TSCA

All components of this product are listed or exempted from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product is a substance under TSCA (CAS No. 64741-67-9, Residues (petroleum), catalytic reformer fractionator).

SARA 313

This product contains chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372

This product contains Polycyclic Aromatic Compounds (PACs). PACs are listed as a category under SARA 313 and include only specific PACs listed in 40 CFR 372.65(c). The US EPA has established Reporting Threshold for PACs of 100 lbs. (40 CFR 370.28). If a facility manufactures, processes, or otherwise uses more than 100 lbs. per calendar year of the PAC category SARA 313 reporting is required. See EPA "Emergency Planning and Community Right-to-know Act - Section 313: Guidance for Reporting Toxic Chemicals: Polycyclic Aromatic Compounds Category" (EPA # 260-B-01-03).

SARA 313 Components:

Naphthalene	CAS No.: 91-20-3	Concentration: 5 - 15%
1,2,4-trimethylbenzene	CAS No.: 95-63-6	Concentration: 0 - 5%

CERCLA/SARA - Section 311/312 Hazard Classes

Acute health hazard
Fire hazard
Chronic health hazard

Canada

WHMIS Classification

Class B Division 3 - Combustible Liquid
Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

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National Chemical Inventories

Residues (petroleum), catalytic reformer fractionator (64741-67-9)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Canadian DSL (Domestic Substances List)
Listed on the China Inventory of Existing Chemical Substances (IECSC)
Listed on the EEC (European Economic Community) inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS)

US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity, not limited to any that may be listed below.

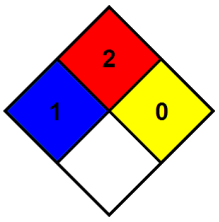
Naphthalene (91-20-3)

U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
No significance risk level (NSRL)	5.8 µg/day

SECTION 16.0 — OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

NFPA (National Fire Protection Association)

NFPA health hazard : 1
NFPA fire hazard : 2
NFPA reactivity : 0



HMIS III Rating

Health : 1*
Flammability : 2
Physical Hazard : 0
Personal Protection : See section 8 of SDS

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US OSHA LABEL as specified under 29 CFR §1910.1200 (f)

UNIAROM® SX 150 IF	UniSource Energy, Inc. 40 Shuman Blvd, Suite 290 Naperville, IL 60563 Phone: 630-470-6030

Combustible liquid May be fatal if swallowed and enters airways Harmful if inhaled May cause respiratory irritation May cause drowsiness or dizziness Suspected of causing cancer Causes damage to organs (blood, eye) Causes damage to organs (eye, lung, nose) through prolonged or repeated exposure

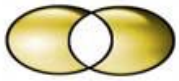
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, open flames, sparks. - No smoking. Do not breathe gas, fume, mist, spray, vapors. Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear eye protection, impermeable protective gloves, flame retardant protective clothing. If swallowed: Immediately call doctor, poison center. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. Specific treatment (see Section 4.1 of SDS or information on this label). If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. In case of fire: Use Water sprays, foam, dry chemical, carbon dioxide (CO2) to extinguish. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental Information: Other hazards not contributing to the classification

Product can accumulate electrostatic charges that may cause fire by electrical discharges

Abbreviations

ACGIH = American Conference of Governmental Industrial Hygienists; AICS = Australia Inventory of Chemical Substances; ATE = Acute Toxicity Estimate, BCF = Bioconcentration Factor; CAS = Chemical Abstracts Service; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; COC = Cleveland Open Cup; DSL = Domestic Substances List (Canada); ECC = European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; ENCS = Japan Existing and New Chemical Substances; EPA = Environmental Protection Agency; GHS = Globally Harmonized System of Classification and Labelling of Chemicals; IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IBC = Intermediate Bulk Container; IDLH = Immediately Dangerous to Life and Health; IMDG = International Maritime Dangerous Goods; INSHT = National Institute for Health and Safety at Work; NDSL = Non-Domestic Substances List (Canada); IOPC = International Oil Pollution Compensation; LEL = Lower Explosive Limit; MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution; NE = Not



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Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PAH = Polycyclic Aromatic Hydrocarbon; PEL = Permissible Exposure Limit (OSHA); PICCS = Philippines Inventory of Chemicals and Chemical Substances, SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); SCBA = Self-Contained Breathing Apparatus; TLV = Threshold Limit Value (ACGIH); TWA = Time Weighted Average (8 hours); TSCA = Toxic Substances Control Act Section 8(b); Inventory UEL = Upper Explosive Limit; UN = United Nations ; HMIS = Worker Hazardous Materials Information System (Canada)

Disclaimer

The information presented herein has been compiled from sources considered to be dependable and is accurate as of the date of preparation of this Safety Data Sheet. However, Seller does not assume any liability whatsoever for the accuracy or completeness of the information contained herein The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license. 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.