

HEAVY AROMATIC DISTILLATE

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Trade name HEAVY AROMATIC DISTILLATE
Synonyms Hydrocarbon mixture containing cyclic and unsaturated compounds
Manufacturer/Supplier Sasol North America Inc.
Address 900 Threadneedle, Houston, TX 77079
Telephone CHEMTREC North America Transportation Emergency (24-hr) (800) 424-9300
 CHEMTREC World Wide (703) 527-3887
 Other Emergencies (24-hr) (337) 494-5142
 MSDS and Product Information (8:00am-4:30pm CST) (281) 588-3491
 Health and Safety Information (8:00am-4:00pm CST) (281) 588-3492

SECTION 2 COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS-No.</u>	<u>Weight %</u>
Benzene	71-43-2	20
Toluene	108-88-3	9
Styrene	100-42-5	7
Naphthalene	91-20-3	2
Benzene, ethyl-	100-41-4	1
Xylene	1330-20-7	1
Hydrocarbon products from ethane cracking*	mixture	60

*Non-Hazardous Air Pollutant - Toxic Air Pollutant Volatile Organic Compound
 See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance Brown, oily Liquid

Odor Strong. Aromatic.

Precautions **WARNING!** FLAMMABLE LIQUID AND VAPOR. CAUSES EYE AND SKIN IRRITATION. CONTAINS BENZENE - CANCER HAZARD. Keep away from heat and flame. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation.

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Environmental precautions If the product contaminates rivers and lakes or drains inform respective authorities. Toxic to aquatic organisms. Product is expected to volatilize rapidly. Biodegradable. Not expected to accumulate in the environment.

POTENTIAL HEALTH EFFECTS

Eyes Irritating to eyes.

Skin Irritating to skin.

Inhalation Irritating to respiratory system. Depression of central nervous system can occur. May cause reversible effects on liver and kidneys. Chronic effects due to benzene include possible cancer (leukemia), bone marrow effects, and injuries to blood forming tissues.

Ingestion Systemic effects may occur. Benzene content may cause damage to blood, CNS, bone marrow, eyes, and upper respiratory tract.

(See Section 11 for Toxicological Information)

SECTION 4 FIRST AID MEASURES

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

Ingestion If swallowed, call a physician or poison control center immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash point 21 °C 70 °F

Autoignition temperature Not available

Flammable limits in air % by volume **Lower explosion limit:** No data available
Upper explosion limit: No data available

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- Fire and explosion** Vapours may form explosive mixture with air. Fire will produce dense black smoke containing hazardous combustion products (see heading 10). NFPA Class IB flammable liquid.
- Extinguishing media** Water spray or fog, foam, dry chemical, CO₂.
- Fire fighting instructions** Wear self-contained breathing apparatus and protective suit.
- Further information** Keep containers and surroundings cool with water spray. Prevent further leakage or spillage if safe to do so. Evacuate personnel to safe areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

- Steps to be taken in case of spill or leak** Evacuate the area and eliminate all sources of ignition. Use personal protective equipment. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 7 HANDLING AND STORAGE

- Safe handling advice** Ensure all equipment is electrically grounded before beginning transfer operations.
- Storage/Transport pressure** Ambient.
- Load/Unload temperature** Ambient.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Air contaminant levels should be controlled below the PEL or TLV for this product (see Exposure Guidelines).

PERSONAL PROTECTIVE EQUIPMENT

- Eyes** When contact with liquid is possible, use a face shield and/or chemical splash goggles. Otherwise use safety glasses with side shields or goggles.
- Skin** Wear suitable protective clothing, gloves and eye/face protection.

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Inhalation NIOSH-approved organic vapor air-purifying respirator, self-contained breathing apparatus, or air-supplied respirators where there may be potential for overexposure.

EXPOSURE GUIDELINES

<u>Components</u>	<u>Exposure limit(s)</u>
Benzene	OSHA PEL 1 ppm OSHA STEL 5 ppm ACGIH TLV (8-hour) 0.5 ppm ACGIH STEL 2.5 ppm
Toluene	OSHA PEL 200 ppm ACGIH TLV (8-hour) 50 ppm OSHA Ceiling 300 ppm OSHA STEL 300 ppm
Styrene	OSHA PEL 100 ppm ACGIH TLV (8-hour) 20 ppm(85 mg/m ³) OSHA Ceiling 200 ppm ACGIH STEL 40 ppm(170 mg/m ³)
Naphthalene	OSHA PEL 10 ppm ACGIH TLV (8-hour) 10 ppm ACGIH STEL 15 ppm
Benzene, ethyl-	OSHA PEL 100 ppm ACGIH TLV (8-hour) 100 ppm ACGIH STEL 125 ppm
Xylene	OSHA PEL 100 ppm(435 mg/m ³) ACGIH TLV (8-hour) 100 ppm ACGIH STEL 150 ppm

PEL= Permissible Exposure Limits
TLV= Threshold Limit Value
EL= Excursion Limit

TWA= Time Weighted Average (8 hr.)
STEL= Short Term Exposure Limit (15 min.)
WEEL= Workplace Environmental Exposure Level

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Colour	Brown, oily
Odour	Strong. Aromatic.
Form	Liquid
Boiling point/range	73 °C 164 °F
Vapor density	None.

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Solubility (water) negligible

Viscosity No data available

Melting point/range No data available

Density 0.921 g/cm³

SECTION 10 STABILITY AND REACTIVITY

Conditions to avoid Keep away from heat and sources of ignition.

Hazardous decomposition products Carbon monoxide, carbon dioxide.

Incompatibility with other materials Oxidizing agents

Hazardous polymerization None.

SECTION 11 TOXICOLOGICAL INFORMATION

Additional Remarks Possibly toxic through skin absorption. This product contains polynuclear hydrocarbons. Some polynuclear aromatic hydrocarbons have been shown to cause skin tumors in laboratory test animals.

Eyes Irritant

Skin Irritant

Inhalation Acute 7 hours LC₅₀ 10,000 ppm
Test Substance: Benzene

Ingestion No data available

CARCINOGENICITY

Benzene

NTP Known to be a human carcinogen.
OSHA Carcinogen.
IARC Carcinogenic to humans.

Styrene

Possibly carcinogenic to humans.

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SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity Toxic to aquatic organisms. Product is expected to volatilize rapidly.

Biodegradation Biodegradable. Not expected to accumulate in the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste code D001 - Ignitability (RQ 100 LB) This product has the RCRA characteristic of ignitability. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.

Disposal methods Dispose of only in accordance with local, state, and federal regulations. Land disposal of this product is restricted. Do not contaminate any lakes, streams, ponds, groundwater or soil.

Empty containers Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

SECTION 14 TRANSPORT INFORMATION

DOT description Flammable liquid, n.o.s. (benzene, toluene), 3, UN 1993, II

IATA description Flammable liquid, n.o.s. (benzene, toluene), 3, UN 1993, II

IMDG description Flammable liquid, n.o.s. (benzene, toluene), 3, UN 1993, II

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SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA classification

Carcinogen, Irritant, Flammable

TSCA Inventory Listing

Components

Residues (Petroleum), Steam-Cracked Light

CAS-No.

68513-69-9

SARA 302 Status

Components

CAS-No.

Weight %

Contains no chemicals subject to SARA 302 reporting.

SARA 311/312 Classification

"Immediate (acute) health hazard", "Delayed (chronic) health hazard", "Fire hazard"

SARA 313 Chemical

Components

CAS-No.

Weight %

Benzene	71-43-2	20
Toluene	108-88-3	9
Benzene, ethenyl-	100-42-5	7
Naphthalene	91-20-3	2
Benzene, ethyl-	100-41-4	1
Benzene, dimethyl-	1330-20-7	1

CERCLA Hazardous Substance

Components

CERCLA RQ

Weight %

Benzene	10 LB	20
Toluene	1,000 LB	9
Benzene, ethenyl-	1,000 LB	7
Naphthalene	100 LB	2
Benzene, ethyl-	1,000 LB	1
Benzene, dimethyl-	100 LB	1

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INTERNATIONAL REGULATIONS

Workplace Hazardous Materials Information System (WHMIS) Classification

Class D, Division 2, Subdivision B: Toxic material.
 Class D, Division 2, Subdivision A: Very toxic material
 Class B, Division 2: Flammable liquid.

Australian Inventory of Chemical Substances (AICS) Listing

Listed on the AICS.

Japanese Minister of International Trade and Industry (MITI) Inventory Listing

Not listed on the MITI.

Canadian Domestic Substance List (DSL) Inventory Listing

Not listed on the DSL.

European Inventory of Existing Commercial Chemical Substances (EINECS) Listing

Listed on EINECS.

Phillipines Inventory List (PICCS)

Listed on PICCS.

Korean Inventory List

Not listed on the ECL.

China Inventory List

Not listed on the China inventory.

STATE REGULATIONS

California Safe Drinking Water Act (Prop 65) Listing Components

Benzene
 Toluene

CAS-No.

71-43-2
 108-88-3

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
HMIS	2	3	0
NFPA	2	3	0

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