1. IDENTIFICATION

NAME: AROMATIC 150

CAS NUMBER: 64742-94-5

CHEMICAL NAME: SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC

ABBREVIATIONS: A-150, S-150

SYNONYMS: High Flash Aromatic Naphtha, Type II Heavy Aromatic Solvent Naphtha hydrocarbons, C10 Aromatics, >1% naphthalene

2. HAZARDS IDENTIFICATION

GHS CLASS
( Category)
FLAMMABLE (4)

ASPIRATION (2)

CHRONIC AQUATIC TOXIC (2)

Signal Words:
WARNING

Hazard Statements:
Combustible liquid (H227)
may be harmful if swallowed & enters airway (H305)

No Signal Word

Toxic to aquatic life with long-lasting effects (H411)

3. COMPOSITION

Composition:

Heavy Aromatic Solvent Naphtha

CAS # 64742-94-5

%: 100%

TWAEV/TLV (mg/m3): 400/1600

LD50 (mg/kg) ORAL: 7050

LD50 (mg/kg) SKIN: >2000

LC50 PPM INHALATION: 5100
Napthalene

CAS# 91-20-3
\
% 0-5%
\
TWAEV/TLV (mg/m3): 10/50 (skin)
\
LD50 (mg/kg) ORAL: 1870
\
LD50 (mg/kg) SKIN: >2500
\
LC50 PPM INHALATION: 106-142

Cumene

CAS# 95-62-6
\
% 0-2%
\
TWAEV/TLV (mg/m3): 50/245
\
LD50 (mg/kg) ORAL: 1400
\
LD50 (mg/kg) SKIN: 10,630
\
LC50 PPM INHALATION: 2000

Trimethylbenzene (Psuedocumene)

CAS# 98-82-8
\
% 0-2%
\
TWAEV/TLV (mg/m3): 25/125
\
LD50 (mg/kg) ORAL: 5000
\
LD50 (mg/kg) SKIN: not known
\
LC50 PPM INHALATION: 3670

4. FIRST AID MEASURES

SKIN: Wash with soap & plenty of water. Remove contaminated clothing & do not reuse until thoroughly laundered.

EYES: Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is irritation.

INHALATION: Remove from contaminated area promptly. CAUTION: Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.

INGESTION: Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim’s head below hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE TO PHYSICIAN: IF INGESTED, MATERIAL MAY BE ASPIRATED INTO THE LUNGS AND CAUSE CHEMICAL PNEOMONITIS, TREAT APPROPRIATELY.

Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity substance. The stomach should only be emptied under medical supervision, and after the installation of an airway to protect the lungs.

PLEASE ENSURE THAT THIS MSDS IS GIVEN TO, AND EXPLAINED TO PEOPLE USING THIS PRODUCT
5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING
Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Combustible. Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Smoke, Fume, Incomplete combustion products, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: 63°C (145°F) [ ASTM D-56]

Flammable Limits (Approximate volume % in air): LEL: 0.8 UEL: 5.9

Autoignition Temperature: 455°C (851°F)

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES
In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES
Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT
Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, 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 noncombustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces. Small Spills: Absorb with earth, sand or other noncombustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS
Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

7. HANDLING AND STORAGE
HANDLING
Avoid breathing mists or vapors. Avoid contact with skin. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Loading/Unloading Temperature: [Ambient]

Transport Temperature: [Ambient]

Transport Pressure: [Ambient]

Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

STORAGE
The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. in a cool, well-ventilated area. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

Storage Temperature: [Ambient]

Storage Pressure: [Ambient]

Suitable Containers/Packing: Tank Cars; Tank Trucks; Barges; Drums

Suitable Materials and Coatings (Chemical Compatibility): Carbon Steel; Stainless Steel; Copper Bronze; Inorganic Zinc Coatings; Epoxy Phenolic; Polyamide Epoxy; Amine Epoxy; Viton; Polypropylene

Unsuitable Materials and Coatings: Vinyl Coatings; Butyl Rubber; Natural Rubber

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure limits/standards (Note: Exposure limits are not additive)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>FORM</th>
<th>LIMIT/STANDARD</th>
<th>NOTE</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAPHTHALENE</td>
<td>TWA/ 50 mg/m3...10 ppm</td>
<td>n/a</td>
<td>OSHA</td>
<td>Z1</td>
</tr>
<tr>
<td>NAPHTHALENE</td>
<td>STEL/15 ppm</td>
<td>skin</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>NAPHTHALENE</td>
<td>TWA/10 ppm</td>
<td>skin</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>PSEUDOCUMENE (1,2,4 TRIMETHYLBENZENE)</td>
<td>TWA/ 22 ppm</td>
<td>N/A</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>SOLVENT HEAVY NAPHTHA (PETROLEUM) HEAVY AROMATIC</td>
<td>VAPOR</td>
<td>RCP-TWA/17 ppm....100 mg/m3</td>
<td>Total hydro-carbons</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS
The level of protection and types of controls necessary will vary depending upon potential exposure conditions.

Control measures to consider: Adequate ventilation should be provided so that exposure limits are not exceeded. Use explosion-proof ventilation equipment.

PERSONAL PROTECTION
Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:
Half-face filter respirator
For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:
Chemical resistant gloves are recommended.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:
Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

9. PHYSICAL AND CHEMICAL PROPERTIES
Typical physical and chemical properties are given below. data.

GENERAL INFORMATION

| PHYSICAL STATE: | LIQUID |
| FORM: | CLEAR |
| COLOR: | COLORLESS |
| ODOR: | AROMATIC |
| ODOR THRESHOLD: | N/D |

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION
Relative Density (at 15.5 C): 0.897
Density (at 15 oC): 898 kg/m3 (7.49 lbs/gal, 0.9 kg/dm3)
Flash Point [Method]: 63C (145F) [ ASTM D-56]
Flammable Limits (Approximate volume % in air): LEL: 0.8 UEL: 5.9
Autoignition Temperature: 455°C (851°F)
Boiling Point / Range: 179C (354F) - 203C (397F)
Vapor Density (Air = 1): 4.7 at 101 kPa
Vapor Pressure: 0.078 kPa (0.59 mm Hg) at 20 C 0.26 kPa (1.95 mm Hg) at 38C
Evaporation Rate (n-butyl acetate = 1): < 0.1
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): N/D
Solubility in Water: Negligible
Viscosity: 1.11 cSt (1.11 mm2/sec) at 40 C | 1.34 cSt (1.34 mm2/sec) at 25C
Oxidizing Properties: See Hazards Identification Section.
OTHER INFORMATION
Freezing Point: -2°C (28°F)
Melting Point: N/A
Molecular Weight: 134
Hygroscopic: No
Coefficient of Thermal Expansion: 0.0008 V/VDEGC

10. STABILITY AND REACTIVITY
STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Open flames and high energy ignition sources.

MATERIALS TO AVOID: Strong Acids, Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE

INHALATION
Toxicity: Data Available
May cause central nervous system effects. Based on test data for the material.
Irritation: Data Available
May be irritating to the respiratory tract. The effects are reversible. Based on test data for structurally similar materials.

INGESTION:
Toxicity: LD50 > 6000 mg/kg
Minimally toxic. Based on test data for the material

SKIN:
Toxicity: LD50 > 2000 mg/kg
Minimally Toxic. Based on test data for the material
Irritation: Data available
Mildly irritating to skin with prolonged exposure. Based on test data for the material.

EYE:
Irritation: Data available
May cause mild, short lasting discomfort to eyes. Based on test data for the material.

CHRONIC/OTHER EFFECTS
For the product itself:
Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death.
Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.
Contains:
NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.

Additional information is available by request.

THE FOLLOWING INGREDIENTS ARE CITED ON THE LISTS BELOW:

NAPHTHALENE    CAS# 91-20-3    LIST CITATIONS: 2,5
12. ECOLOGICAL INFORMATION
The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY
Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY
Material -- Highly volatile, will partition rapidly to air. solids. Not expected to partition to sediment and wastewater solids

PERSISTENCE AND DEGRADABILITY
Biodegradation:
   Material -- Expected to be inherently biodegradable

Hydrolysis:
   Material -- Transformation due to hydrolysis not expected to be significant.

Photolysis:
   Material -- Transformation due to photolysis not expected to be significant.

Atmospheric Oxidation:
   Material -- Expected to degrade rapidly in air

OTHER ECOLOGICAL INFORMATION
VOC (EPA Method 24): 7.485 lbs/gal

13. DISPOSAL CONSIDERATIONS
Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS
Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION
RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, 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.

14. TRANSPORT INFORMATION
LAND (DOT)
Proper Shipping Name: PETROLEUM DISTILLATES, N.O.S. (NAPHTHALENE ) COMBUSTIBLE LIQUID

Hazard Class & Division: UN Number: 1268
Packing Group: III
Marine Pollutant: Yes
ERG Number: 128
Label(s): NONE
Transport Document Name:
UN1268, PETROLEUM DISTILLATES, N.O.S., COMBUSTIBLE LIQUID, PG III, MARINE POLLUTANT (Naphthalene)
LAND (TDG): Not Regulated for Land Transport
Footnote: If shipped over water, product TDG classification as shown below for SEA (IMDG).

SEA (IMDG)
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (NAPHTHALENE)
Hazard Class & Division: 9
EMS Number: F-A, S-F
UN Number: 3082
Packing Group: III
Marine Pollutant: Yes
Label(s): 9
Transport Document Name:
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Naphthalene), 9, PG III, MARINE POLLUTANT

AIR (IATA)
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. 9 (NAPHTHALENE)
Hazard Class & Division: 9
UN Number: 3082
Packing Group: III
Label(s) / Mark(s): 9, EHS
Transport Document Name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Naphthalene), 9, PG III

15. REGULATORY INFORMATION
OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.
NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ENCS, KECI, PICCS, TSCA
EPCRA: This material contains no extremely hazardous substances.
CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLA petroleum exclusion applies for this product. Contact local authorities to determine if other reporting requirements apply.
CWA / OPA: This product is classified as an oil under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Act of 1990. Discharge or spills which produce a visible sheen on either surface water, or in waterways/sewers which lead to surface water, must be reported to the National Response Center at 800-424-8802.
SARA (313) TOXIC RELEASE INVENTORY:

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS #</th>
<th>Typical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAPHTHALENE</td>
<td>91-20-3</td>
<td>&lt;9.9%</td>
</tr>
<tr>
<td>PSEUDOCUMENE</td>
<td>95-63-6</td>
<td>&lt;1.7%</td>
</tr>
<tr>
<td>(1,2,4-TRIMETHYLBENZENE)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SDS: AROMATIC 150
THE FOLLOWING INGREDIENTS ARE CITED ON THE LISTS BELOW:

NAPHTHALENE  CAS# 91-20-3  LIST CITATIONS: 1,4,5,9,10,13,16,17,18,19
PSEUDOCUMENE  CAS# 95-63-6  LIST CITATIONS: 1,13,16,17,18,19
(1,2,4-TRIMETHYLBENZENE)
SOLVENT NAPHTHA  CAS# 64742-94-5  LIST CITATIONS: 18
(PETROLEUM HEAVY AROMATIC)

REGULATORY LISTS SEARCHED

1 = ACGIH ALL  6 = TSCA 5a2  11 = CA P65 REPRO  16 = MN RTK
2 = ACGIH A1  7 = TSCA 5e  12 = CA RTK  17 = NJ RTK
3 = ACGIH A2  8 = TSCA 6  13 = IL RTK  18 = PA RTK
4 = OSHA Z  9 = TSCA 12b  14 = LA RTK  19 = RI RTK
5 = TSCA 4  10 = CA P65 CARC  15 = MI 293

Code Key: CARC = Carcinogen; REPRO = Reproductive

16. OTHER INFORMATION
N/D = Not determined, N/A = Not applicable

PRECAUTIONARY LABEL TEXT:
Contains: SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC, NAPHTHALENE
WARNING!

HEALTH HAZARDS
Repeated exposure may cause skin dryness or cracking. Possible human cancer hazard. If swallowed, may be aspirated and cause lung damage.

PHYSICAL HAZARDS
Combustible. Material can accumulate static charges which may cause an ignition.

PRECAUTIONS
Avoid breathing mists or vapors. Avoid contact with skin. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation.

FIRST AID
Inhalation: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
Eye: Flush thoroughly with water. If irritation occurs, get medical assistance.
Oral: Seek immediate medical attention. Do not induce vomiting.

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

SPILL/LEAK
Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent. Do not touch or walk through spilled material.
Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. 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.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer.

Date Created: 3/19/2015
Date Updated: 6/22/2015