Material Safety Data Sheet (MSDS)
BENZENE FUEL BOOSTER 120 ML

SECTION 1 : Production Identification

- **Description :** BENZENE FUEL BOOSTER 120 ML
- **Product information :** Benzene fuel with additive
- **Product Code :** 03-11TF-96
- **Usage :** Benzene additive
- **CAS Number:** Not applicable for mixtures.
- **Synonyms:** None.
- **Generic Chemical Name:** Mixture.
- **Manufacturer:** FUJIZAKURA Co.,Ltd.
- **Address:** 1213/296 Ladpraw Rd., Phlap Phla, Wangthonglang, Bangkok 10310
- **Telephone:** (02) 530-7274
- **Fax:** (02) 559-3536
- **Effective Date:** February, 2017

SECTION 2 : Hazards Identification

- **Appearance:** Light colored liquid.
- **Odor** : Aromatic hydrocarbon
- **Principal Hazards Danger.**

l Causes severe skin irritation.

l Harmful if inhaled.

l Causes eye irritation.

l Causes respiratory tract irritation.

l Combustible liquid.

l Contains components which may cause cancer.

l May cause chronic health effects.

- **Target Organs :** Nervous system
- **Label Elements**

- Signal Words : Danger

See Section 11 for complete health hazard information.

SECTION 3 : Composition/Information on Ingredients

Substances	CAS No.	Percentage (by wt.)
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY	64742-48-9	87.6910%
NONANE	111-84-2	2.6967%
HYDROCARBYL AMINE	CONFIDENTIAL	5.5567%
XYLENE	1330-20-7	1.0121%
PETROLEUM NAPHTHA	64742-94-5	1.8185%
ETHYL BENZENE	100-41-4	0.3038%
POLYETHER AMINE	CONFIDENTIAL	0.3031%
TOLUENE	108-88-3	0.0303%
++NAPHTHALENE	91-20-3	0.3031%
++1,2,4-TRIMETHYLBENZENE	95-63-6	0.3031%
2-NAPHTHALENOL	92257-31-3	0.0042%

SECTION 4 : First Aids Measures

- **Eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
- **Skin:** Wash with plenty of soap and water. Remove contaminated clothing. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse.
- **Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. Call a poison center or doctor.
- **Oral:** Do NOT induce vomiting. Immediately call a poison center or doctor. Aspiration of material due to vomiting can cause chemical pneumonitis which can be fatal. If vomiting occurs naturally, the casualty should lean forward to reduce the risk of aspiration.
- **Additional Information:** If exposed or concerned: Get medical attention.

SECTION 5 : Fire Fighting Measures

- **Flash Point:** 48°C 118.4°F

- **Extinguishing Media:** CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.
- **Firefighting Procedures:** Recommend wearing self-contained breathing apparatus. Water may cause splattering.
- **Unusual Fire & Explosion Hazards Vapors:** may be heavier than air and may travel along the ground to a distant ignition source and flash back. Container may rupture on heating.

See section 10 for additional information

SECTION 6 : Accidental Release Measures

- **Spill Procedures:** Evacuate all non-essential personnel. Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Take precautions to avoid release to the environment. Eliminate all ignition sources if safe to do so. Ventilate spill area. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Check under Transportation and Labeling (DOT/CERCLA) and Other Regulatory Information Section (SARA) for hazardous substances to determine regulatory reporting requirements for spills.

SECTION 7 : Handling and Storage

- **Precautions for safe handling**
- **Safe handling:** Containers, even those that have been emptied, may contain explosive vapours.

  Do NOT cut, drill, grind, weld or perform similar operations on or near containers.

  DO NOT allow clothing wet with material to stay in contact with skin

  Electrostatic discharge may be generated during pumping - this may result in fire.

  Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec).

Avoid splash filling.

- **Other information:** Store in original containers.

Keep containers securely sealed.

No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area.

Store away from incompatible materials and foodstuff containers.

Protect containers against physical damage and check regularly for leaks.

- **Conditions for safe storage, including any incompatibilities**
- **Suitable container:** Metal can or drum
  Packaging as recommended by manufacturer.
  Check all containers are clearly labelled and free from leaks.
  Avoid reaction with oxidising agents
- **Storage incompatibility:** **CARE:** Water in contact with heated material may cause foaming or a steam explosion with possible severe burns from wide scattering of hot material. Resultant overflow of containers may result in fire.

SECTION 8 : Exposure Controls/Personal Protection

- Exposure Limits

Comp	Exposure Guidelines					
	OSHA		ACGIH		Other	
	TWA	STEL	TWA	STEL	TWA	STEL
Petroleum naphtha	N/E	N/E	N/E	N/E	100 ppm (l)	N/E
Naphthalene	10 ppm	N/E	10 ppm (s)	15 ppm	N/E	N/E

(s) - Skin exposure
(p) - Proposed limit
(c) - Ceiling exposure
(l) - Recommended exposure limit

(u) - Supplier recommended exposure limit
(N/E) - None established

- **Confidential - See section 1 for HMIRA exemption status**
- **Other Exposure Limits:** None known.
- **Engineering Controls:** Use local exhaust ventilation to control mists or vapors. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.
- **Gloves Procedures:** Neoprene.
- **Eye Protection:** Chemical goggles or faceshield.
- **Respiratory Protection:** Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.
- **Clothing Recommendation:** Gloves, coveralls, apron, boots as necessary to minimize contact. Wear either a chemical protective suit or apron when potential for contact with material exists. Use chemically protective boots when necessary to avoid contaminating shoes. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction. Launder contaminated clothing before reuse.

SECTION 9 : Physical and Chemical Properties

- **Flash Point:** 48 °C, 118.4 °F
- **Upper Flammable Limit:** Not determined.
- **Lower Flammable Limit:** Not determined.
- **Autoignition Point:** Not determined.
- **Explosion Data:** Material does not have explosive properties.
- **Vapor Pressure:** Not determined.
- **pH:** Not determined.
- **Specific Gravity:** 0.777 (15.6 °C)
- **Bulk Density:** Not determined.
- **Water Solubility:** Not determined.
- **Percent Solid:** Not determined.
- **Percent Volatile:** Not determined.
- **Volatile Organic Compound:** Not determined.
- **Vapor Density:** Not determined.
- **Evaporation Rate:** Not determined.

- **Odor:** Aromatic Hydrocarbon
- **Appearance:** Light colored liquid.
- **Viscosity:** 1.331 Centistokes (40 °C)
- **Odor Threshold:** Not determined.
- **Boiling Point:** 152 °C, 305.6 °F
- **Pour Point Temperature Not:** determined.
- **Melting / Freezing Point:** Not determined.

The above data are typical values and do not constitute a specification.

Vapor pressure data are calculated unless otherwise noted.

SECTION 10 : Stability and Reactivity

- **Stability:** Material is normally stable at moderately elevated temperatures and pressures.
- **Decomposition Temperature:** Not determined.
- **Incompatibility:** Strong acids. Strong oxidizing agents.
- **Polymerization:** Will not occur.
- **Thermal Decomposition:** Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Ammonia. Nitrogen oxides. Propylamine, polyalkylglycols, and aliphatic alcohols may also be released.
- **Conditions to Avoid:** Not determined.

SECTION 11 : Toxicological Information

--ACUTE EXPOSURE--

- **Eye Irritation:** Moderate to strong eye irritant. Based on data from components or similar materials.
- **Skin Irritation:** Severe skin irritant. Based on data from components or similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
- **Respiratory Irritation:** Nose, throat and lung irritant. Based on data from components or similar materials.
- **Dermal Toxicity:** The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.

- **Inhalation Toxicity:** High concentrations may cause headaches, dizziness, nausea, stupor, and other central nervous system effects leading to visual impairment, difficulty breathing and convulsions.
- **Oral Toxicity:** The LD50 in rats is > 2000 mg/Kg. Based on data from components or similar materials. This product contains a petroleum naphtha with an oral LD50 (rat) of > 5000 mg/kg.
- **Dermal Sensitization:** No data available to indicate product or components may be a skin sensitizer.
- **Inhalation Sensitization:** No data available to indicate product or components may be respiratory sensitizers.

-- CHRONIC EXPOSURE --

- **Chronic Toxicity:** Repeated overexposure to petroleum naphtha can cause nervous system damage.
- **Carcinogenicity:** A two-year National Toxicology Program (NTP) study found an increased incidence of tumors of the nose in rats exposed to naphthalene by inhalation. In mice similarly exposed, increased incidences of alveolar/bronchiolar adenomas were observed. Naphthalene has been classified by the International Agency for Research on Cancer (IARC) as a possible human carcinogen (Group 2B) on the basis of sufficient evidence of carcinogenicity in experimental animals but inadequate evidence in exposed humans.
- **Mutagenicity:** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
- **Reproductive Toxicity:** No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
- **Teratogenicity:** No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

-- ADDITIONAL INFORMATION --

- **Other:** No Other health hazards known.

SECTION 12 : Ecological Information

--ENVIRONMENTAL TOXICITY --

- **Freshwater Fish Toxicity:** The acute LC50 is < 1 mg/L based on component data.

- **Freshwater Invertebrates Toxicity:** The acute EC50 is < 1 mg/L based on component data.
- **Algal Inhibition:** Not determined.
- **Saltwater Fish Toxicity:** Not determined.
- **Saltwater Invertebrates Toxicity:** Not determined.
- **Bacteria Toxicity:** Not determined.
- **Miscellaneous Toxicity:** Not determined.

--ENVIRONMENTAL FATE --

- **Biodegradation At:** least 25% of the components in this product show limited biodegradation based on OECD 301-type test data. At least 25% of the components in this product show moderate biodegradation based on OECD 302-type test data.
- **Bioaccumulation:** At lest 25% or greater of the components potentially bioconcentrate, based on octanol/water coefficients.
- **Soil Mobility:** Not determined.

SECTION 13 : Disposal Considerations

- **Waste Disposal:** This material, if discarded, is not a hazardous waste under RCRA Regulation 40 CFR 261. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

SECTION 14 : Transport Information

- **ICAO/IATA I:** Not regulated.
- **ICAO/IATA II:** UN3295 Hydrocarbons, liquid, n.o.s.
- **IMDG:** UN3295 Hydrocarbons, liquid, n.o.s
- **IMDG EMS Fire:** F-A
- **IMDG EMS Spill:** S-F
- **IMDG MFAG:** None
- **MARPOL Annex II:** Not determined.
- **USCG Compatibility:** Not determined.

Review classification requirements before shipping materials at elevated temperatures.

SECTION 15 : Regulatory Information

- **Global Chemical Inventories –**
- **Other TSCA Reg.:** Section 8D (Naphthalene).
- **Japan:** This product requires notification in Japan.

SECTION 16 : Other Information

- **Precautionary Labels:** Danger.
  l Causes severe skin irritation.
  l Harmful if inhaled.
  l Causes eye irritation.
  l Causes respiratory tract irritation.
  l Combustible liquid.
  l Contains components which may cause cancer.
  l May cause chronic health effects.

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