

SAFETY DATA SHEET

NAPHTHA



1. Identification of Substance or Mixture and of the Supplier

Material Name : Naphtha

Other Names : Light Naphtha, Light Cat Naphtha, Sweet Virgin Naphtha (SVN), Atmospheric Naphtha, Full Boiling Range Naphtha, Full Range Reformed Naphtha, Light Straight Run Naphtha, Heavy straight Rum Naphtha

Recommended Use / Restrictions of Use : Fuel Component, Refinery Intermediate Stream
: This product is intended for use in closed systems only.

Suppliers Details : **Attock Refinery Limited**
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2. Hazard Identification

GHS Classification

Flammable Liquids,	Category 1
Aspiration Hazard,	Category 1
Carcinogenicity,	Category 1
Eye Damage/Irritation,	Category 2A
Germ Cell Mutagenicity,	Category 1
Skin Corrosion/Irritation,	Category 2
Toxic to Reproduction,	Category 2
Hazardous to the Aquatic Environment- Long-term -Hazard,	Category 2

GHS Label Elements & Precautionary Statements



: **Signal Word**
Danger

Hazard Statement (s)

- H224** Extremely flammable liquid and vapor
- H304** May be fatal if swallowed and enters airways
- H315** Causes skin irritation
- H319** Causes eye irritation
- H340** May cause genetic defects
- H350** May cause cancer
- H360** Possible risk of harm to the unborn child
- H411** Toxic to aquatic life with long lasting effects

Precautionary Statement (s) – Prevention

- P102** Keep out of reach of children
- P201** Obtain special instructions before use
- P202** Do not handle until all safety precautions have been read and understood
- P210** Keep away from source of ignition, hot surface and open flames. No smoking
- P233** Keep container tightly closed
- P240** Ground/bond container and receiving equipment.
- P241** Use explosion-proof electrical/ ventilating/ lighting/ equipment
- P242** Use only non-sparking tools.
- P243** Take precautionary measures against static discharge.
- P264** Wash contaminated skin thoroughly after handling.
- P273** Avoid release to the environment.
- P280** Wear protective gloves/protective clothing/eye protection/face protection.
- P281** Use personal protective equipment as required

Precautionary Statement (s) - Response

- P301+P310** IF SWALLOWED: Immediately call doctor/ physician.
- P302+P352** IF ON SKIN: Wash with plenty of soap and water
- P303+P361+P353** IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313** IF exposed or concerned: Get medical advice/attention.
- P331** Do NOT induce vomiting.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P370+P378 In case of fire: Use foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only for extinction.

P391 Collect spillage

Precautionary Statement (s) – Storage

P403+P235 Store in a well-ventilated place. Keep cool.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F

Precautionary Statement (s) – Disposal

P501 Dispose of contents/container to an approved waste disposal plant

3. Composition / Information on Ingredients

Chemical Identity : Complex mixture of hydrocarbons consisting of paraffin’s, Naphthenic and aromatic hydrocarbons (including benzene <1.0% v/v) with carbon numbers predominantly in the C4 to C11 range.

Common Name : Naphtha

CAS Number : 8030-30-6

Composition Information

Name	CAS Number	Percent (%)
Naphtha	8030-30-6	99-100
Benzene	71-43-2	<1.0

4. First-Aid Measures

Inhalation : If inhaled, remove victim to fresh air and keep at rest in a position Comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, breathing is irregular or respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Seek medical attention

Ingestion : Rinse mouth with water. DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention

Skin : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. wash skin thoroughly with soap and water. Seek medical attention.

Eye Contact : Rinse immediately with plenty of water also under the eyelids for at least 15 minutes. Seek medical attention.

5. Fire Fighting Measures

Hazchem Code : 3YE

Suitable Extinguishing Media : Dry chemical, Carbon dioxide (CO₂), Foam, Use water spray to cool unopened containers.

Unsuitable Extinguishing Media : Don't use water in jet

Hazards from Combustion Products : Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of nitrogen.

Specific Hazards during Fire Fighting : Cool closed containers exposed to fire with water spray.

Decomposition Temperature : Not Available

Precautions in connection with Fire : Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapors. This product should be prevented from entering drains and watercourses.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures : Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Do not touch or walk through spilt material. Shut off all ignition sources.

Environmental Precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities. May be harmful to the environment if released in large quantities.

Methods and Materials for Containment and Cleaning up : Use clean non-sparking tools to collect the material and place into suitable labeled containers for subsequent recycling or disposal. Dispose off waste according to the applicable local and national regulation.

7. Handling & Storage

Safe Handling : Put on appropriate personal protective equipment. Avoid exposure. obtain special instructions before use. Avoid exposure during pregnancy. Do not get in eye or on skin or clothing. Do not swallow. Aspiration hazard and may cause damage to lungs. Never siphon by mouth. Avoid breathing vapor or mist. Avoid contact of spilt material and runoff with soil and surface waterways. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges.

Safe Storage Conditions : Store in a cool, dry, well-ventilated area away from sources of ignition, oxidizing agents, strong acids, foodstuffs, and clothing. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations. When the product is pumped (e.g. during filling, discharge or ullaging) and when sampling, there is a risk of static discharge. Ensure equipment used is properly earthed or bonded to the tank structure.

Recommended Storage Materials : For containers, or container linings use mild steel, stainless steel. Aluminum may also be used for applications where it does not present an unnecessary fire hazard. Examples of suitable materials are: high density polyethylene (HDPE), polypropylene (PP), and Viton (FKM), which have been specifically tested for compatibility with this product

Unsuitable Storage Materials : Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended

use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber, polymethyl methacrylate, polystyrene, polyvinyl chloride (PVC) and polyisobutylene.

8. Exposure Control / Personnel Protection

Occupational Exposure Limit Values

Component	CAS No	Value Type (Form of Exposure)	Control Parameters / Permissible Concentration	Basis
Naphtha	8030-30-6	TWA	500ppm,2000mg/m ³	OSHA Z-1
Benzene	71-43-2	TWA	10 ppm	OSHA Z-2

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Biological Limit Values

: Benzene: S-Phenylmercapturic acid in urine - End of shift: 25 µg/g creatinine (ACGIH) t,t-Muconic acid in urine - End of shift: 500 µg/g creatinine (ACGIH)

Appropriate Engineering Controls

: This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapors away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapor/mist below the exposure standards, suitable respiratory. Protection must be worn

Respiratory Protection

: If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Eye Protection

: Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.

Hand Protection

: Wear gloves of impervious material such as nitrile gloves (Breakthrough time of > 240 minutes) neoprene, PVC gloves. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Body Protection

: Suitable protective work wear, e.g. Cotton overall/dangrie.

9. Physical & Chemical Properties

Physical State	: Liquid
Flammability	: Flammable
Color	: Colorless
Odor	: Hydrocarbon (marketable)
Boiling Point Range	: 27 - 150 °C
Specific Gravity @ 15.6°C/ 15.6°C	: 0.720-0.790
Vapor Pressure, at 37.8°C	: 6-12 psi
Existent Gum	: 1mg/100ml
Sulphur	: <0.01%
Benzene	: <1.0 %

10. Stability & Reactivity

Chemical Stability	: Stable under normal conditions of storage and handling
Conditions to Avoid	: Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources
Incompatible Products	: Keep away from strong oxidizers.
Hazardous	: Carbon monoxide, carbon dioxide and non-combusted hydrocarbons
Decomposition Products	(smoke). Contact with nitric and sulfuric acids will form nitrocresols that can decompose violently.

11. Toxicological Information

Toxicology Information : **Acute Toxicity – Oral**
LD50 :(Rat) : >2000 mg/kg

Acute Toxicity – Inhalation
LD50 :(Rat) : >5 mg/l / 4h

Acute Toxicity – Dermal
LD50 :(Rat) : >2000 mg/kg

Ingestion : Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

Inhalation : Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include

headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

Skin : Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis

Eye : Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness

Respiratory Sensitization : Not expected to be a respiratory sensitizer

Skin Sensitization : Not expected to be a skin sensitizer

Germ cell Mutagenicity : May cause genetic defects. Classified as Known or presumed to induce heritable mutations.

Carcinogenicity : May cause cancer. Classified as a Known or presumed human carcinogen.

Reproductive Toxicity : This product is suspected of damaging fertility or the unborn child.

Aspiration Respiratory Organs Hazard : The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

12. Ecological Information

Ecotoxicity : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Biodegradability Persistence/ Degradability : The biodegradability of this material has not been determined.

Mobility : Spillages may penetrate the soil causing ground water contamination.

Bioaccumulative Potential : This product is not expected to bioaccumulate through food chains in the environment.

Other Ecological Information : Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

13. Disposal Considerations

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Advice flammable nature. Empty containers may contain flammable residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected.

14. Transport Information

Hazard Class

3

U.N. Number

1268

Packaging Group

II

Label

Flammable Liquid

15. Regulatory Information

Classified as Hazardous according to the Globally Harmonized System of classification and labeling of chemicals (GHS) including Work, Health and Safety regulations.

OSHA Hazards : Flammable liquid, highly toxic by ingestion, Moderate skin irritant, severe eye irritant, Carcinogen.

16. Other Information including Information on Preparation and revision of the SDS

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process.