

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	: Pyrolysis oil- II
Chemical Name	: Aromatic Hydrocarbon.
Product Description	: Hydrocarbons, Ethylene manufacturing byproduct oil
Supplier	: National Industrialization Company TASNEE
Address	: Jubail Industrial City Kingdom of Saudi Arabia
emergency at KSA	: +966 (013) 359 7111
Non-emergency Tel.	: +966 (011) 222 2205

2. HAZARD IDENTIFICATION

2.1 Classification

Flammable liquids (Category 3)
Acute toxicity, Oral (Category 4)
Skin irritation (Category 2)
Serious eye damage (Category 2)
Toxic to reproduction (Category 2)
Acute hazards to the aquatic environment (Category 2)

2.2 LABELLING



Signal word: DANGER

Hazard statement(s)

Flammable liquid and vapor.
Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.
Suspected of causing genetic defects.
Suspected of damaging fertility or the unborn child.
May cause cancer.
Causes damage to organs.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure May be fatal if swallowed.

Precautionary Statements

Keep container tightly closed.

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Wear protective gloves/protective clothing/eye protection/face protection

Ground/Bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting equipment.

Take precautionary measures against static discharge.

Use only non-sparking tools.

Wash thoroughly after handling.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

Do not eat, drink or smoke when using this product.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid release to the environment

Use only outdoors or in well-ventilated area.

2.3 Other Hazards

No data Available

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Chemical Listing No.	Content %(Wt)
Benzene	CAS No.: 71-43-2	28-50
toluene	CAS No.: 108-88-3	1-20
xylene	CAS No.: 1330-20-7	0.1-3
C4 & lower HC	NA	5-11
C5 & lower HC	NA	10-48
water	NA	0-9.9
NaOH	CAS No.: 1310-73-2	0-0.15
Na ₂ S	CAS No.: 1313-82-2	0-.005
Na ₂ CO ₃	CAS No.: 497-19-8	0-0.02
NaHS	CAS No.: 16721-80-5	Traces
Sulfur	CAS No.: 7704-34-9	0-0.5

Note: There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section

4. FIRST-AID MEASURES

4.1 Description of First Aid Measures

General advice	: Consult a physician. Show this safety data sheet to the doctor in attendance.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
If swallowed	: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, : if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of Immediate Medical Attention and Special Treatment Needed

No information available.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media:

Use dry chemical, CO₂, water spray (fog) or foam

5.2 Special Hazards Arising from the Product or Mixture

Thermal Decomposition

Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material

is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

5.3 Specific Hazards During Firefighting:

Vapors can travel to a source of ignition and flash back. Heated containers can explode.

5.4 Advice for Firefighters

Special Protective Equipment for Firefighters: Wear self-contained breathing apparatus and protective suit.

5.5 Further Information

Explosion Hazard: Fight advanced fires from a protected location. Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

6.2 Environmental Precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal

6.4 Reference to Other Sections

For disposal see section 13

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. 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 only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

7.2 Conditions for Safe Storage, Including any Incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific End Uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control Parameter

Components with workplace control parameters

Ventilation System:

Use only with adequate ventilation. Ventilate as needed to comply with exposure limit. General dilution ventilation is acceptable.

8.2 Exposure Controls

Personal Protective Equipment

Eye/face protection

Splash prove chemical goggles of full shield recommended to protect against splash of Product

Skin protection

Protective gloves recommended to protect against contact with product. The following gloves are acceptable: polyethylene, polyvinyl chloride (PVC), neoprene, nitrile, polyvinyl alcohol. Wear chemical-resistance safety footwear with good traction to prevent slipping. Work clothing that sufficiently prevents skin contact should be worn such as coveralls and/or long sleeves and pants.

Respiratory Protection

Concentration in air determines protection needed. Use only NOISH certified respiratory protection. Air supplied breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators. Half mask air purifying respirator with organic vapor cartridges is acceptable to 10 times the exposure limit. Full face air purifying respirator with organic vapor cartridges is acceptable to 50 times the exposure limit not to exceed the cartridge limit of 1000 ppm. Protection by air purifying respirator is limited. Use a positive pressure demand, full face supplied air respirator or SCBA for exposure above 50X the exposure limit. If exposure above IDLH (Immediately Dangerous to Life & Health) or there is the possibility of an uncontrolled release or exposure levels are unknown then use a positive pressure-demand, full face supplied air respirator or SCBA.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Appearance Form:	Liquid
Color:	Colorless to light yellow
Odor:	Naphthenic
Specific Gravity:	0.8 – 1.0
pH:	No data available

Melting Point/Freezing Point:	-100 to -29°C (-148 to -20.2°F)
Initial Boiling Range:	>36°C ~ 56°C
Flash point	< -30°C - Abel Flash Point – Method IP170
Evaporation Rate:	No data available
Upper explosion limit:	No data available
Lower explosion limit:	No data available
Vapor pressure:	20 to 30 kPa (150 to 225 mm Hg) [20°C]
Vapor Density:	No data available
Relative Density:	No data available
Water Solubility:	No data available
Auto Ignition Temperature:	No data available

9.2 Other safety information

Relative Vapor Density: No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification. Pyrolysis oil- II has not been tested for properties mentioned above.

10. STABILITY AND REACTIVITY

10.1 Reactivity	: No Data Available
10.2 Chemical Stability	: Stable under recommended storage conditions.
10.3 Possibility of Hazardous Reactions	: No Data Available.
10.4 Conditions to Avoid	: Heat, Flames and Sparks.
10.5 Incompatible Materials	: Strong Oxidizers
10.6 Hazardous Decomposition Products	: This product emits Carbon Monoxide & Asphyxiates.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Overexposure to vapors or exhaust fumes may cause headache nausea, eye nose, throat, respiratory irritation. High vapor concentrations may cause CNS (Brain) effect, respiratory failure, coma, death. Prolonged / repeated contact may cause irritation, dermatitis, repeated applications (2YR) of similar middle distillates in animals caused skin cancer.

Harmful / Fatal if swallowed, pulmonary aspiration hazard can enter lungs and cause damage.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Product is slightly soluble in water, and evaporates rapidly. Major components are highly volatile and will partition rapidly to air. Product is likely to have moderate toxicity in freshwater fish and invertebrates, based on toxic disruption of biological membrane function. Product has likely low to moderate absorption into soil and sediment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal methods:

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

Shipping Name: UN 3295, Hydrocarbons, Liquid n.o.s. (contains Benzene, Toluene), cl.
3 PG II, Marine Pollutant

UN/NA Number: UN 3295

Required Label(s): FLAMMABLE LIQUID

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of GHS Guidelines.

Chemical Safety Assessment: For this product, a chemical safety assessment was not carried out

16. OTHER INFORMATION

Pyrolysis oil- II is a byproducts and waste chemicals produced during the manufacturing of Ethylene at various stages of the process. Pyrolysis oil- II may contain hazardous chemicals as components in the mixture. TASNEE has not performed technical or clinical testing on the suitability of Pyrolysis oil- II in use involving human contacts. This is the sole responsibility of the user to find the safety of use of this chemical for their intended use.

NOTE:

The information contained in this SDS is to the best of TASNEE knowledge and believed accurate and reliable as of the date indicated, however, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own use.