

**SAFETY DATA SHEET**  
**UNLEADED GASOLINE WITH 5% ETHANOL**



**I. PRODUCT AND COMPANY IDENTIFICATION**

**Product name** : Unleaded Gasoline E5.  
**Trade name** : Gasoline E5 RON 92-II.  
**Other name** : Unleaded Gasoline E5.  
**Supplier's name, address** : Vietnam National Petroleum Group  
N°1- Kham Thien Str.- Van Mieu Quoc Tu Giam Ward.-  
Hanoi  
**Contact, Routine inquiries** : Vietnam National Petroleum Group  
N°1- Kham Thien Str.- Van Mieu Quoc Tu Giam Ward.-  
Hanoi  
Tel. 024 3851 2603 Fax. 024 3851 9203  
**CAS number** : Not applicable  
**UN number** : 1203  
**EC number** : Not applicable  
**Intended use** : Fuel for internal combustion engine, spark engine

**II. HAZARDS IDENTIFICATION**

**National Fire Protection Association (NFPA)**

Health hazard: 1  
Flammable hazard: 3  
Reactivity: 0



**GHS Classification:**

Flammable liquid : Category 1  
Skin irritation : Category 2  
Aspiration hazard : Category 1  
Reproductive toxicity : Category 2  
Germ cell mutagenicity : Category 1B  
Carcinogenicity : Category 1B  
Specific target organ toxicity (single exposure) : Category 3  
Aquatic acute : Category 2  
Aquatic chronic : Category 2

**Pictogram:**



**Signal word** : Danger.

**Hazard statements**

H224 : Extremely flammable liquid and vapour.  
H304 : May be fatal if swallowed and enters airways.

- H315 : Causes skin irritation.
- H336 : May cause drowsiness or dizziness.
- H340 : May cause genetic defects.
- H350 : May cause cancer.
- H361 : Suspected of damaging fertility or unborn child.
- H401 : Toxic to aquatic life.
- H411 : Toxic to aquatic life with long lasting effects.

**Prevention precautionary statements**

- P210 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P240 : Ground and bond container and receiving equipment.
- P241 : Use explosion-proof electrical, ventilating and lighting equipment.
- P242 : Use only non-sparking tools.
- P243 : Take action to prevent static discharges.
- P261 : Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 : Wash hand thoroughly after handling.
- P271 : Use only outdoors or in a well-ventilated area.
- P273 : Avoid release to the environment.
- P280 : Wear protective gloves/ protective clothing/eye protection/ face protection.

**Response precautionary statements**

- P370 + P378 : In case of fire: Use appropriate firefighting equipment to extinguish.

**Storage precautionary statements**

- P403 + P235 : Store in a well-ventilated place. Keep cool.
- P405 : Store locked up .

**Disposal precautionary statement**

- P501 : Dispose of contents/container in accordance with local/regional/national/international regulations.

**III. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical name	CAS number	Content (% volume)
Unleaded Gasoline RON 92	86290-81-5	92,5 – 96
Ethanol	64-17-5	4 - 7,5
Olefin compound		≤ 38
Aromatic compound		≤ 40
Benzene	71-43-2	≤ 2,5
MTBE	1634-04-4	≤ 10

**IV. FIRST AID MEASURES**

- Eye contact** : Take the victim to a safe, well-ventilated space with fresh air. Use clean water to rinse eyes for at least 15 minutes, then get immediate medical attention.
- Skin contact** : Remove contaminated clothes and shoes. Use water and soap to wash the part of skin exposed to the gasoline. In case of allergic or if the skin is seriously damaged, get immediate medical attention.
- Inhalation contact** : Remove victim to fresh air, keep comfortable breathing.

	Loosen up the neck, tie or belt. If not breathing, or unusual breathing, immediately take the artificial respiration (shall be implemented by trained staff of first aid). Immediately get medical attention.
<b>Ingestion contact</b>	: Thoroughly rinse mouth by water. Do not induce vomiting, it might cause the complication of lung unless have the instruction of medical. Do not put anything to mouth while unconscious statement. Get immediate medical attention.
<b>Note</b>	: A supporter can get danger while implement artificial respiration. Get medical attention.

## V. FIRE FIGHTING MEASURES

<b>Toxic chemical might be produced</b>	: CO <sub>x</sub> , Hydrocacbon, H <sub>2</sub> S and a little metal.
<b>Fire extinguishing agents</b>	: Use fire extinguisher and specialized fire fighting equipment, CO <sub>2</sub> , sand, fire blanket.
<b>Fire fighting methods</b>	<ul style="list-style-type: none"> <li>- Take initial emergency response to isolate, extinguish the fire.</li> <li>- Cut off the power source related to the fire.</li> <li>- Prioritize in rescuing victims, preventing and isolating the gasoline's source of leakage, if possible remove others nearby containers and equipment.</li> <li>- Use fire extinguisher, sand, fire blanket to extinguish the small fire.</li> <li>- Do not use water to extinguish, only use water spray to cool down the fire-exposed surfaces of surroundings containers and equipment.</li> <li>- Call and inform the Fire service to ask for assistance.</li> </ul>
<b>Required equipment, protection gears in case of fire</b>	: Fixed fire fighting equipment, fire truck, dry powder wheeled fire extinguisher ≥ 25kg, CO <sub>2</sub> extinguisher, powder extinguisher 6-10kg, sand, buckets, fire blanket etc. Use flame resistant clothing, protection helmet with eye protection, gloves etc.
<b>Special attention notice:</b>	: The gasoline's vapor is highly flammable, heavier than air and can move far away from the leaked source. If encountered with a fire source may cause fire outbreak to the leaked source. Gasoline can be float on water while igniting.

## VI. ACCIDENTAL RELEASE MEASURES

<b>Small spill</b>	<ul style="list-style-type: none"> <li>- Take all possible measures to stop the source of the spill or leakage. Ventilate the affected area.</li> <li>- Isolate the spill/leak area. Assign supervisor and warn others about hazardous zone.</li> <li>- Eliminate all sources of ignition and sparks during spill or leak incidents.</li> <li>- Use dry sand, rags, or specialized absorbent materials to clean up the spill as quickly as possible, then collect</li> </ul>
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## Large spill

- the waste into specialized containers for proper disposal.
- Prevent the gasoline from leaking to drainage systems, canals, or waterways.
- Cut off electrical power and cease all operation of transferring gasoline.
- Isolate the spill/leak area and prepare fire prevention and firefighting plan, measures.
- Implement protective actions for the affected area, prevent the spread of gasoline, and carry out recovery efforts in accordance with the facility's oil spill response plan.
- Inform the local authorities for assistance to handle the incident.

## VII. HANDLING AND STORAGE

### Measures and applied conditions while handle chemical

- Open containers slowly to release internal vapor pressure.
- Only transfer gasoline using specialized containers. Use anti-static grounding systems when loading or unloading fuel into transportation vehicles.
- During the loading and unloading process, it is strictly prohibited to: start the vehicle's engine, check the power source, perform maintenance, or clean vehicles.
- No fire, no smoking, and no use of portable electrical or telecommunication devices that are not explosion-proof in hazardous areas.
- Prevent any spillage, leakage, or splashing of gasoline.
- Do not use gasoline to clean up, do not siphon gasoline by mouth.
- Always wear appropriate personal protective equipment (PPE) when getting into contact gasoline. Wash hands and clean up thoroughly after work.

### Measures and applied conditions while stored chemical

- Store gasoline in specialized, sealed containers. Store in a dry, well-ventilated, and cool area.
- Prevent gasoline containers from strong impacts. Keep away from heat sources, sparks, and strong oxidizing agents.
- Install an automatic fire detection and alarm system.
- Comply with the Government's requirements on fire protection and fire fighting, environment protection, oil spill prevention when operating petroleum facilities.
- Fire fighting equipment must be fully equipped following the Government's requirements when handling, transferring, storing the petroleum products.

## VIII. EXPOSURE CONTROL AND PERSONAL PROTECTION

### Control parameters

Components	CAS number	Type of exposure	Value (ppm)	Standard
Gasoline	86290-81-5	Respiration	300 (TWA) 500 (STEL)	ACGIH
Benzene (C <sub>6</sub> H <sub>6</sub> )	71-43-2	Respiration	1 (TWA)	ACGIH
MTBE	1634-04-4	Respiration	50 (TWA)	ACGIH

### Personal protection for working:

Eye protection	: Specialized protection equipment is not required. Goggles are recommended in necessity case.
Body protection	: Use protective clothing.
Hand protection	: Use protective gloves.
<b>Personal protection for responding incident</b>	: The oil spill response team, fire fighting team must be equipped with specialized tool and equipment when approaching and handling the incident.
<b>Sanitation measures</b>	: Wash hands with soap and clean up after getting into contact with gasoline.

## IX. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	: Liquid
<b>Colour</b>	: Pure, clear.
<b>Odour</b>	: Characteristic odour of Gasoline
<b>Vapour pressure (37,8°C), kPa</b>	: Report
<b>Vapour density relative (Air = 1)</b>	: Not available
<b>Solubility rate in water</b>	: Insoluble
<b>pH</b>	: Not applicable
<b>Density (kg/m<sup>3</sup>)</b>	: Report
<b>Boiling point (°C)</b>	: Report - 215
<b>Freezing point/ Melting point (°C)</b>	: Not applicable
<b>Flash point (°C)</b>	: Not available
<b>Auto-ignition point (°C)</b>	: Not available
<b>Upper explosion limit</b>	: Not available
<b>Lower explosion limit</b>	: Not available
<b>Specific gravity (15,6°C/ 15,6°C)</b>	: Not available
<b>Copper corrosion (at 50°C, in 3 hours)</b>	: Type 1
<b>Oxidative stability (minutes)</b>	: ≥ 480
<b>Oxygen content (% wt)</b>	: ≤ 3,7
<b>Sulfur content (mg/kg)</b>	: ≤ 500
<b>Metal content (Fe, Mn), mg/L</b>	: ≤ 5
<b>Lead content (g/L)</b>	: ≤ 0,005

## X. STABILITY AND REACTIVITY

<b>Incompatible chemical Stability</b>	: Acid, strong oxidizing agent. : This product is stable under normal temperature, pressure and used conditions that have been recommended.
<b>Dangerous reaction</b>	: May cause corrosion or explosion; may react with the surrounding environment. Produces toxic carbon monoxide (CO) when burned .
<b>Decomposition reaction and its product</b>	: Combustion releases heat and produces carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).

## XI. TOXICOLOGICAL INFORMATION

<b>Mouth route</b>	: Not available.
<b>Inhalation route</b>	: Not available.
<b>Skin route</b>	: Not available.
<b>Chronic effect to human</b>	: May cause cancer depending to exposure concentrations and exposure time.
<b>Other toxicity</b>	: Not available.

## XII. ECOLOGICAL INFORMATION

<b>For animal</b>	: Not available.
<b>Biodegradable</b>	: The product is biodegradable in the short term and is not considered hazardous. However, prolonged biodegradation over time may increase its toxicity.
<b>Bioaccumulation</b>	: Not available.
<b>Mobility in soil</b>	: Not available.

## XIII. DISPOSAL INFORMATION

- Do not put into pond, lake, drainage and sewage system.
- The disposal process must follow the procedure and general standard about chemical's disposal specified in the Law on Environment protection, assuring the safety for human and environment.

## XIV. TRANSPORT INFORMATION

<b>Vietnam Regulations</b>	: Decree No. 34/2024/ND-CP dated March 31 <sup>st</sup> 2024 of the Government providing the List of dangerous goods and the transport of dangerous goods by inland waterway vessels - Proper Shipping Name: Gasoline (Gasoline E5) - UN number: 1203 - Class: 3 - Labels: 3 - Hazard identification number: 33 : Decree No. 161/2024/ND-CP dated December 18 <sup>th</sup> 2024 of the Government providing the List of dangerous goods, transport of dangerous Goods and the procedures for granting licenses and certificates of completion of training programs for drivers or escorts transporting dangerous goods on roads . - Proper Shipping Name: Gasoline (Gasoline E5)
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- Class: 3
- Labels: 3
- Hazard identification number: 33
- International Regulations**
  - USA, DOT Shipping Description: UN 1203, Gasoline, 3, II.
  - IMO/IMDG Shipping Description: UN 1203, Gasoline, 3, II.
  - IATA/ICAO: UN 1203, Gasoline, 3, II.

## XV. REGULATORY INFORMATION

- Vietnam Regulations**
  - Law No.69/2025/QH15 on chemical.
  - Law No.84/2015/QH13 on occupational safety and hygiene.
  - Law No.72/2020/QH14 on environmental protection.
  - Law No.55/2024/QH15 on Fire prevention and fighting, rescue and salvage.
- International Regulations** : Not available.

## XVI. OTHER INFORMATION

**Date of compilation** : June 1<sup>st</sup> 2026

**Name of organization, individual responsible for drafting:**

VIETNAM NATIONAL PETROLEUM GROUP (PETROLIMEX)

**DISCLAIMER FOR USER:**

- The information and recommendations in this Material Data Safety Sheet are, to the best knowledge and belief, accurate and reliable as of the date issued, and must be used to apply methods preventing risk, accident.
- Dangerous chemical presented in this sheet might have others dangerous properties under the control of the user.
- **Petrolimex shall not be held responsible for any damage resulting from abnormal use of the recommendations presented in this Material Data Safety Sheet.**

