



<b>MATERIAL SAFETY DATA SHEET</b>			 بترو رابغ Petro Rabigh
<b>PRODUCT NAME : PREMIUM GRADE GASOLINE – 91 RON</b>			
MSDS Reference No. MSDS-09-004	REV NO. 1.1 May 1, 2019	Expected Revision Date May 1, 2021	Page 1 of 5

### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

<b>PRODUCT DESCRIPTION:</b>	Premium Grade Gasoline – 91 RON		
<b>CHEMICAL FAMILY:</b>	Petroleum Naphtha and Ether	<b>24-HOUR EMERGENCY TELEPHONE NUMBERS</b>	
<b>GRADE NAME:</b>	A-381	Asia Pacific (except China) :	CareChem: +65 3158 1074
<b>CHEMICAL FORMULA SYNONYMS:</b>	Gasoline; Unleaded Motor or Automotive Gasoline	China off-land:	CareChem: +85 512 8090 3042
		Europe, America, Middle East & Africa (English):	CareChem: +44 (0) 1235 239 670
		US and Canada (English):	ChemTrec: 1-800-424-9300 ChemTrec: +703-527-3887
		Middle East & Africa (Arabic):	CareChem: +44 (0) 1235 239 671
<b>MANUFACTURER'S NAME AND ADDRESS:</b>	Rabigh Refining and Petrochemical Company  PO Box 101, Rabigh 21911 Kingdom of Saudi Arabia. <b>Tel: +966 12 425-0390</b> <b>Free number: 800 440 9000</b>		
<b>E-mail for person responsible for this MSDS:</b>	<a href="mailto:dallaisx@petrorabigh.com">dallaisx@petrorabigh.com</a>		

### SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	% (by volume)	CAS #	EINECS #	HAZARD SYMBOL	RISK & SAFETY PHRASES
Gasoline	Min 91.0 (RON)	8006-61-9	289-220-8		R12, R38, R45, R51/53, R67  S23, S24, S29, S43, S45, S53, S61, S62
MTBE	Max15.0	1634-04-4	289-220-8		
Benzene	Max 3.0	71-43-2	216-653-1		
Sulfur	Max 0.10%wt	-	-		
Olefins	Max 20.0 (cracked)	-	-		
Gum, Solvent washed	Not Available	-	-		
Metallic Lead	Max 0.013mg/l	-	-		

Note: This product is considered hazardous under OSHA 29 CFR 1910.1200.

### SECTION 3 - HAZARDS IDENTIFICATION

**Emergency Overview:** Extremely flammable, carcinogenic, can cause lung damage, and vapors may cause drowsiness and dizziness, loss of balance and coordination; unconsciousness, coma, respiratory failure, and death.

**Routes of Entry:** Inhalation, skin and Ingestion.

**POTENTIAL HEALTH EFFECTS:**

**Inhalation:** Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Exposure to higher vapor concentrations can lead to include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death. can lead to nausea, headache, drowsiness, dizziness, and in extreme cases, loss of consciousness and coordination.


**Skin:** Causes irritation. Prolonged and repeated contact can lead to defatting of the skin, drying, cracking and dermatitis. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are exposed repeatedly.

**Eyes:** Moderate irritant.

**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.

**Carcinogenicity:** Contains benzene, a regulated human carcinogen (leukemia).

**Aggravation of Pre-Existing Medical Conditions:** Irritation from skin exposure may aggravate existing open wounds, skin disorders, and dermatitis (rash). Chronic respiratory disease, liver or kidney dysfunction, or pre-existing central nervous system disorders may be aggravated by exposure.

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### SECTION 4 - FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If the victim has breathing difficulty or is dizzy and unresponsive give 100% oxygen or Cardio Pulmonary Resuscitation (CPR). Rush to nearest medical facility.

**Skin:** Remove any contaminated clothing. Thoroughly rinse the skin with mild soap and water. If persistent irritation occurs, obtain medical attention. On contact with molten product immediately immerse in or flush with large amounts of cold water to dissipate heat. Do not attempt to remove the material or clothes sticking to the skin. Obtain medical help.

**Eyes:** Check for and remove contact lenses if worn. Immediately flush eyes with running water for minimum of 15 minutes with eyelids open. Transport to nearest medical facility for additional treatment.

**Ingestion:** Although first aid is normally not required, do not induce vomiting. If victim is alert, rinse mouth. Do not give liquids to a drowsy, convulsing or unconscious person. Transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below the hips to prevent aspiration.

### SECTION 5 - FIRE FIGHTING MEASURES

**Flash Point/Range:** Not available; Extremely flammable

**Flammable Range:** Not available.

**Auto ignition Temperature:** Highly variable

**General Hazards:** Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

**Extinguishing Media:** Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills away from fire.

**SMALL FIRES:** Any extinguisher suitable for Class B fires, dry chemical, CO<sub>2</sub>, water spray, fire fighting foam, or Halons.

**LARGE FIRES:** Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

**Fire Fighting Procedures:** Wear full protective clothing and self contained breathing apparatus with a full piece operated in a positive pressure mode. Evacuate the area of non essential personnel. Stay upwind and fight fire from safe distance. Keep the adjacent containers cool by spraying water. Water in a straight hose stream may cause fire to spread and should be used as a cooling medium only.

**Unusual Fire and Explosion Hazards:** Vapor accumulations may flash and/or explode if ignited. Keep ignition sources, open flames, etc., away from these fumes.

**Hazardous Combustion Products:** Combustion will produce carbon and nitrogen oxides and unidentified organic compounds.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

Observe relevant local regulations and notify authorities in the event of exposure to general public or environment. Remove all sources of ignition. Spilled material will make the surface extremely slippery so keep walking surface free from material. Wear protective equipment (section 8). Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal - caution, flammable vapors may accumulate in closed containers. Response and clean-up crews must be properly trained and must utilize proper protective equipment.


### SECTION 7 - HANDLING AND STORAGE

**Handling:**  
 Keep in a tightly closed container. Store in a cool, dry, corrosion-proof, ventilated area away from moisture, sources of heat or ignition, combustibles and oxidizers. Protect against physical damage. Avoid dust formation and control ignition sources. Employ grounding, venting and explosion relief provisions in accord with accepted engineering practices in any process capable of generating dust and/or static electricity. Empty only into inert or non-flammable atmosphere. Emptying contents into a non-inert atmosphere where flammable vapors may be present could cause a flash fire or explosion due to electrostatic discharge. For guidance on PPE selection see Section 8.

**Storage:**  
 Store in a cool dry place away from direct sunlight especially for extended storage periods; store rooms should be clean, dry and contaminant free. Keep the containers tightly closed. Storages should be well ventilated and away from incompatibles and sources of ignition. Employ grounding, venting and explosion relief provisions in accord with accepted engineering practices in any process capable of generating dust and/or static electricity. Empty only into inert or non-flammable atmosphere. Emptying contents into a non-inert atmosphere where flammable vapors may be present could cause a flash fire or explosion due to electrostatic discharge.

### SECTION 8 - EXPOSURE LIMITS / PERSONAL PROTECTION

COMPONENTS	OSHA PEL			ACGIH TLV		
	TWA	STEL	CEILING	TWA	STEL	CEILING
Gasoline	-	-	-	300ppm	500ppm	Not Available
Benzene	1ppm	5ppm	-	0.5ppm (Skin)	2.5ppm	-
MTBE	-	-	-	50ppm	-	-

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**ENGINEERING CONTROLS:** If the operations involve generation of vapor, employ adequate ventilation to keep the airborne vapor below the recommended occupational exposure limits. The use of closed system or adequate general or local exhaust ventilation is recommended. Controls also needed to keep dust concentration below the explosive limits. Storage and material handling areas should have eyewash and safety shower facilities installed.

**RESPIRATORY PROTECTION:** If engineering controls do not maintain airborne concentrations to a level which is adequate to protect workers health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers.

When respiratory protection is required, use appropriate NIOSH approved air purifying respirators with organic vapors filter cartridges.

**WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

In case of oxygen deficiency use positive pressure supplied air respirator.

For emergency and other conditions when exposure may be greatly exceeded use an approved positive pressure Self Contained Breathing Apparatus (SCBA).

**RESPIRATORY PROTECTION:** Use NIOSH/MSHA approved respirators when vapors or mist concentrations exceed permissible exposure limits.

**SKIN PROTECTION:** Wear impervious protective clothing such as nitrile gloves, apron, boots or whole bodysuit, as appropriate.

**EYE AND FACE PROTECTION:** Wear safety glasses with side shields or goggles when handling this material.

**OTHER PROTECTIVE/SAFETY EQUIPMENT:** Maintain eye wash fountain, quick drench and safety shower facility at the site of material handling.

**WORK/HYGIENIC PRACTICES:** Wash hands, forearms and face thoroughly after handling product. Wash hands before eating, drinking and smoking. Launder contaminated clothing before re-use. Maintain PPE in clean and hygienic conditions.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance And Odor:</b> A translucent, green-colored liquid with typically gasoline odor	<b>Vapor Pressure:</b> Reid psia: 9.0 (summer) to 11.5 (winter)
<b>pH:</b> Not applicable	<b>Specific Gravity (Water=1):</b> Not Available; Lighter than water
<b>Melting Point/Range:</b> Not Applicable	<b>Molecular Weight:</b> Mixture
<b>Boiling Point/Range:</b> Not Available	<b>Solubility In Water:</b> Negligible
<b>Flash Point/Range:</b> Not Available; Extremely Flammable	<b>Viscosity (Kinematic):</b> Not Available
<b>Flammable Limits/Range:</b> 0.9% to 6.7% in air	<b>Vapor Specific Gravity (Air=1):</b> Not Available; Heavier than air
<b>Autoignition Temperature/Range:</b> Not Available	<b>Evaporation Rate:</b> Not Available, < 1 (n-Butyl Acetate=1)
<b>Percent Volatiles:</b> 100%	<b>Other Properties:</b> None

## SECTION 10 - STABILITY AND REACTIVITY

**STABILITY:** Stable under normal conditions of use. Reacts with strong oxidizing agents. Protect from high temperature, open flames, sparks, static discharges and incompatible materials (see below).

**INCOMPATIBILITY (MATERIALS TO AVOID):** Strong oxidizing agents such as halogens, chromates, peroxides, perchlorates, nitric acid, hypochlorite, nitrates, etc, moisture, carbides, zinc, tin, alkali metals, phosphorus, ammonia, ammonium nitrate, charcoal and many other substances.

**HAZARDOUS DECOMPOSITION OR BYPRODUCTS:** Carbon and nitrogen oxides and unidentified organic compounds.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### TOXICITY TO ANIMALS:

No data is specifically available for this product and therefore this toxicological information is based on testing completed with the ingredients.

**Gasoline:** LD50 Oral Rat > 18ml/kg; LD50 Dermal Rabbit > 5 ml/kg


**Benzene:** LD50 Oral Rate: 690-3400 mg/kg; LC50 Inhalation Rat: 13,700ppm for 4 hours; LD50 Dermal Rabbit: > 8,260mg/kg.

### CHRONIC EFFECTS ON HUMANS:

Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Prolonged exposure to high vapor concentration can cause headache, dizziness, nausea, blurred vision and central nervous system depression. Prolonged and repeated exposure may cause serious injury to blood forming organs, resulting in anemia and similar conditions. Myelodysplastic syndrome (MDS) has been observed in people exposed to very high levels (50 to 300ppm) of benzene over a long period of time in the workplace. The relevance of these results to lower levels of exposure is not known.

### SKIN EFFECTS:

Contact Causes irritation. Prolonged and repeated contact can lead to defatting of the skin, drying, cracking and dermatitis. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are exposed repeatedly.

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<p><b>EYE EFFECTS:</b> May cause irritation.</p> <p><b>RESPIRATORY EFFECTS:</b> May cause irritation of mucous membranes of the nose, throat and upper respiratory tract.</p> <p><b>SENSITIZATION:</b> No information available</p> <p><b>MUTAGENECITY:</b> No information available. However, it can be mutagen owing to the benzene content being greater than 0.1%</p> <p><b>CARCINOGENECITY:</b> This product contains benzene. Carcinogenic hazard. Repeated exposure to benzene concentrations greater than the recommended TLV/TWA may reduce the cellular components of peripheral blood and bone marrow. Epidemiological studies indicate that long term inhalation of benzene vapors can cause leukemia in man. Benzene has also produced chromosomal aberrations in peripheral blood lymphocytes.</p> <p><b>REPRODUCTIVE EFFECTS:</b> No information available</p>
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### SECTION 12 - ECOLOGICAL INFORMATION

<p>Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams, or public waterways. Block off drains and ditches. Provincial regulations require and federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities.</p> <p><b>MOBILITY:</b> No Information Available.</p> <p><b>PERSISTENCE AND BIODEGRADABILITY:</b> No Information Available.</p> <p><b>BIO-ACCUMULATIVE POTENTIAL:</b> No Information Available.</p> <p><b>AQUATIC TOXICITY AND ECOTOXICITY:</b> Product is expected to be toxic to aquatic organisms.</p>
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### SECTION 13 - DISPOSAL CONSIDERATIONS


<p><b>MATERIAL DISPOSAL METHOD:</b> Recover or recycle if possible. May be buried at authorized landfill site or be incinerated in a approved chemical incinerator. Waste material disposal should be in accordance with prevailing regional and local regulation. Do not dispose of by uncontrolled incineration or open burning.</p> <p><b>CONTAINER DISPOSAL:</b> Contaminated containers should be cleaned and disposed of in the same manner as the product in accordance with applicable regulations. Dispose in accordance with prevailing regulation preferably through a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.</p>
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### SECTION 14 - TRANSPORT INFORMATION

<p>Dangerous for Conveyance  <b>UN Number :</b> 1203  <b>Proper Shipping Name :</b> Petrol or Motor Spirit or Gasoline  <b>Symbol :</b> Flammable Liquid  <b>Packing Group :</b> II  <b>Marine Pollutant :</b> No  <b>IATA/ICAO Hazard Class:</b> 3  <b>IMO Hazard Class :</b> 3  <b>Class :</b> 3 Classification code : F1  <b>Hazchem Code :</b> 3YE</p>
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### SECTION 15 - REGULATORY INFORMATION

<p><b>U.S. FEDERAL, STATE, and LOCAL REGULATORY INFORMATION:</b>          This product and its constituents listed herein are on the EPA TSCA Inventory. Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other federal, state, or local regulations; consult those regulations applicable to your facility/operation.</p> <p><b>CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIRONMENT)</b>          The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil, refined and unrefined petroleum products and any indigenous components of such. However, other federal reporting requirements (e.g., SARA Section 304 as well as the Clean Water Act if the spill occurs on navigable waters) may still apply.</p>
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<b>CANADIAN REGULATORY INFORMATION (WHMIS)</b> Class B, Division 2 (Flammable Liquid) Class D, Division 2A (Very toxic by other means) and Class D, Division 2B (Toxic by other means)  <b>REQUIREMENTS OF OTHER COUNTRIES:</b> Local requirements should be consulted.
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### SECTION 16 - OTHER INFORMATION

<b>HMIS HAZARD RATINGS:</b> HEALTH: 2 , FLAMMABILITY: 4 , REACTIVITY: 0  0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe	<b>NFPA CODES:</b> HEALTH: 2, FLAMMABILITY: 4 REACTIVITY: 0, SPECIAL: Do NOT use water 0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe
Revision No. 1.1	May 1, 2019
Previous Revision: 1.0	April, 2010

**DISCLAIMER:**  
 The information is based on our current and best knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. Petro Rabigh makes no warranty of any kind, expressed or implied, regarding the accuracy of these data. Petro Rabigh assumes no responsibility for injury from the use of the product described herein.