



MATERIAL SAFETY DATA SHEET

(According to GHS rev. 5)

PEX-AP

1. IDENTIFICATION

Company: YPF S.A. Address: Av. Macacha Güemes n° 515 CP C1106BKK Buenos Aires - ARGENTINA Tel# (+ 5411) 5441-2000 Fax# (+ 5411) 5441-5796	Commercial name: PEX-AP Chemical name: Linear alkyl benzene.
	Synonyms: Benzene, mono-C10-13-alkyl derivs., distn. residues
	Emergency Telephone: Argentina: 0800-222-2933 Other countries: +54 11 4611 2007

2. HAZARD IDENTIFICATION

2.1 LABEL ELEMENTS

Pictograms			
Warning word	Peligro		
Hazard statement	H304 - May be fatal if swallowed and enters airways.	-	-
Classification criteria	Aspiration hazard (Category 1)	-	-
Other regulations	-		

OTHER HAZARDS

Floats on water. It can obstruct sewers and water intakes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

General composition: A complex residue of linear C10-14 alkyl benzenes with a boiling range greater than 330°C (626°F) consisting predominantly of diphenylalkanes, dialkylbenzenes, and diphenyldialkanes.

Main components	Range %	Classification	S Phrases
Benzene, mono-C10-13-alkyl derivs., distn. residues CAS# 84961-70-6 EC# 284-660-7	> 99		

4. FIRST-AID MEASURES

Inhalation:

For those providing assistance, avoid exposure. Use proper protection if necessary. Move victim and get fresh air. Keep calm. If not breathing, give artificial respiration. If having difficulty breathing, give oxygen. Get medical advice.

Ingestion/Aspiration:

DO NOT INDUCE VOMITING. Give water to drink. Never give anything by mouth to an unconscious person. Get medical advice. If vomiting occurs spontaneously, place victim on side to reduce the risk of aspiration.

Contact skin/eyes:

Skin contact: Wash immediately after contact with soap and water for at least 20 minutes. Remove contaminated clothing and wash before reuse.

Eye contact: Immediately flush with water for at least 20 minutes, holding eyelids apart to ensure that all eye and lid tissues rinsed. Washing eyes within several seconds is essential to achieve maximum effectiveness. If you have contact lenses, remove them after the first 5 minutes, then continue rinsing eye. Get medical advice.

General measures:

Avoid exposure to the product, taking appropriate protective measures. Medical advice: Symptomatic treatment.

5. FIRE-FIGHTING MEASURES

Extinguishing agents:

Dry chemical, foam, CO₂ or water spray. Use the product according to the surrounding materials.
WATER SHOULD NEVER BE USED DIRECTLY.

Non suitable extinguishing agents: NP

Combustion products:

It can produce toxic fumes of carbon monoxide, aldehydes and products of incomplete combustion in case of fire.

Special measures:

Evacuate the area. If a leak or spill has not ignited, use water spray to disperse vapours and protect personnel attempting to stop leak. Move containers from fire area if you can do it without risk. Do not put water inside containers or areas of leakage. Spray containers with water to keep them cool. Cool containers with flooding quantities of water until well after the fire is out.

Fight fire from maximum distance or use unmanned hose holders or monitor. Withdraw immediately in case of rising sound from venting safety vents, or if the tank begins to discolor. ALWAYS stay away from tanks engulfed in fire.

Special hazards: NP

Protective equipment:

Use self-contained breathing apparatus. Structural protective clothing provides limited protection in fire in fire situations ONLY; It may not be effective in spill situations. For large spills wear protective clothing against chemicals, which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:

Contain liquid with a dike. Prevent entry into waterways, sewers, basements or confined areas.

Personal precautions:

Avoid sources of ignition. Evacuate personnel to a ventilated area. Use SCBA and skin and eye protection. Wear impervious gloves. Ventilate immediately, especially in low areas where vapours

Cleanup methods:

Collect the product through sand, earth or inert absorbent material and completely clean or wash the contaminated area. Provide water and waste collected in marked for disposal as chemical waste containers.

may accumulate.

Personal protection: Suitable protective clothing, safety goggles and gloves.

7. HANDLING AND STORAGE

Handling:

General precautions: Wear suitable protective clothing, gloves and safety goggles to prevent skin and eyes contact with the product. In the areas where the product is stored, handled or used, keep all ignition sources away and do not smoke, eat or drink.

Specific conditions: Good local exhaust ventilation.

Specific Use: Formulation of soluble and non-soluble industrial oils, antirust additives for lubricant oils, emulsifiers for agrochemicals, etc.

Storage:

Temperature and decomposition products: NP

Dangerous reactions: NP

Storage conditions: Keep the product in properly closed and labelled containers in cool and well-ventilated place. Keep them away from ignition sources and incompatible materials.

Incompatible materials: Oxidizers.

8.EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection:

Eye protection: Safety goggles or face-shield to prevent eyes contact with the product.

Respiratory protection: Respiratory protection to prevent inhalation of vapours from heated product.

Skin protection: Gloves (Viton), suitable protective clothing.

Other protective equipment: Showers and eye-washers in working area.

General precautions: Good local exhaust ventilation. Avoid direct contact with the product.

Specific hygiene measures: Contaminated clothing should be changed immediately. Care should be taken to ensure proper skin cleaning by washing thoroughly with soap and water, followed by the application of a skin re-conditioning cream. Use skin reconditioning cream after work.

Exposure controls: NP

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid.

pH: NP

Colour: 2.0 max. (ASTM D-1500)

Odour:

Boiling point: IBP: 270°C; FBP (90% max.): 396°C (ASTM D-86)

Melting/Freezing point: -40 max.

Flash point: 160°C min. (ASTM D-92)

Autoignition temperature:

Explosive properties: NP

Oxidizing properties: NP

Vapour pressure: NP

Density: 0.8795 g/cm³ typical at 15°C (ASTM D-1298)

Surface tension: NP

Viscosity: (at 40°C) 19 cSt typical (ASTM D-445)

Vapour density:

Partition coefficient (n-octanol/water): NP

Water solubility: Insoluble.

Solubility: In organics solvents.

Other data:

10. STABILITY AND REACTIVITY

Stability: Stable at room temperature.

Conditions to avoid: High temperatures and ignition sources.

Materials to avoid: Oxidizers.

Hazardous decomposition/combustion products: CO₂, H₂O and CO (in case of incomplete combustion).

Polymerizations risk: NP

Conditions to avoid: NP

11. TOXICOLOGICAL INFORMATION

Routes of exposure: Inhalation. Skin and eyes contact. Ingestion is easy to avoid.

Acute and chronic effects: Slightly irritant in contact with skin or eyes.

Carcinogenicity: NP

Reproductive toxicity: No data available.

Medical conditions which increase hazard to exposure: Dermatological problems.

12. ECOLOGICAL INFORMATION

Pollutant potential:

Persistence and degradability: The product has long hydrocarbon insoluble chains that make biodegradation process difficult.

Mobility/bioaccumulative potential: No data available on linear alkyl benzene bioaccumulative problems.

Ecotoxicological effects: No data available.

13. DISPOSAL CONSIDERATIONS

Disposal methods (surplus): Recycling when possible.

Waste: Liquids from industrial processes.

Disposal: Consult with authorized environmental regulatory agencies for guidance on acceptable disposal practices.

Handling: Contaminated materials have the same risk and need the same precautions as the product. Do not run off the product to sewers.

Provisions: Companies that recover, dispose, store, transport or handle waste should comply with local and/or national provisions in force on waste management.

14. TRANSPORT INFORMATION

Special precautions: Stable at room temperature and during transport.

Additional Information:

LAND TRANSPORT:

Proper shipping name :	NOT CLASSIFIED AS A DANGEROUS GOODS
UN Number :	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class :	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard identification number :	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group :	NOT CLASSIFIED AS A DANGEROUS GOODS
Exempt amount :	NOT CLASSIFIED AS A DANGEROUS GOODS

AIR TRANSPORT (ICAO/IATA) :

Proper shipping name :	NOT CLASSIFIED AS A DANGEROUS GOODS
UN Number :	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class :	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group :	NOT CLASSIFIED AS A DANGEROUS GOODS
CRE :	NOT CLASSIFIED AS A DANGEROUS GOODS
Passenger and cargo aircraft :	NOT CLASSIFIED AS A DANGEROUS GOODS
Cargo aircraft only :	NOT CLASSIFIED AS A DANGEROUS GOODS

MARITIME TRANSPORT (IMDG/IMO) :

Proper shipping name :	NOT CLASSIFIED AS A DANGEROUS GOODS
UN Number :	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class :	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group :	NOT CLASSIFIED AS A DANGEROUS GOODS
Marine pollutant :	NOT CLASSIFIED AS A DANGEROUS GOODS
Stowage and segregation :	NOT CLASSIFIED AS A DANGEROUS GOODS
Ems :	NOT CLASSIFIED AS A DANGEROUS GOODS

15. REGULATORY INFORMATION

CLASIFICACION: LABELLING

Symbols: NP

Phrases R: NP

NP

Phrases S: NP

Other regulations: The product is listed in TSCA Inventory (EPA).

16. OTHER INFORMATION

Data Bases consulted

EINECS: European Inventory of Existing Commercial Substances.
TSCA: Toxic Substances Control Act, US Environmental Protection Agency
HSDB: US National Library of Medicine.
RTECS: US Dept. of Health & Human Services

R phrases show in the document:

Legislation consulted:

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
Dir. 67/548/EEC about classification, labelling and packaging of dangerous substances (including amendments and adaptations in force).
Dir. 1999/45/EC about classification, labelling and packaging of dangerous preparations (including amendments and adaptations in force).
Dir. 91/689/EEC dangerous waste; Dir. 91/156/EEC waste management.
Royal Decree 363/95: Regulation about notification of new substances and classification, packaging and labelling of dangerous substances.
Royal Decree 255/2003: Regulation about classification, packaging and labelling of dangerous preparations.
European Agreement concerning the international carriage of dangerous goods by road (ADR).
Regulation on the international transport of dangerous goods on the railway. (RID)
International maritime code of dangerous goods. (IMDG)
International Air Transport Association (IATA) regulation pertaining to air shipment.

Glossary:

CAS: Chemical Abstract Service

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists.

TLV: Threshold Limit Value

TWA: Time Weighted Average

STEL: Short-term Exposure Level

REL: Recommendable Exposure Limit

PEL: Permissible Exposure Limit

INSHT: Instituto Nal. de Seguridad e Higiene en el Trabajo

VLA-ED: Valor Límite Ambiental – Exposición Diaria

VLA-EC: Valor Límite Ambiental – Exposición Corta

LD₅₀: Lethal Dose Medium

LC₅₀: Lethal Concentration Medium

EC₅₀: Effective Concentration Medium

IC₅₀: Inhibitory Concentration Medium

BOD: Biological Oxygen Demand.

NP: Not Pertinent

| : Changes from the last revision

[1502.161]

The information given in this document has been compiled based on the best existing information sources, latest available knowledge and according to the current requirements on classification, packaging and labelling of hazardous substances. It does not imply the information is exhaustive or accurate in all cases. It is the user's responsibility to determine the validity of the information contained in this Material Safety Data Sheet to apply depending on the case.