



MATERIAL SAFETY DATA SHEET

(According to GHS rev. 5)

AGUARRAS MINERAL

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: WHITE SPIRIT Chemical name: Solvent (petroleum).
	Synonyms: Mineral turpentine. Petroleum ether. Naphtha (petroleum), hydrodesulfurized heavy.
	Emergency Telephone: Argentina: 0800-222-2933 Other countries: +54 11 4552 8747

2.HAZARD IDENTIFICATION

2.1 LABEL ELEMENTS

Pictograms			
Warning word	Peligro		
Hazard statement	H226 - Flammable liquid and vapour.	H315 - Causes skin irritation. H304 - May be fatal if swallowed and enters airways. H336 - May cause drowsiness or dizziness.	H411 - Toxic to aquatic life with long lasting effects.
Classification criteria	Flammable liquid (Category 3)	Skin irritation (Category 2) Aspiration hazard (Category 1) STOT-SE (Category 3)	Environmental - RE (Category 2)
Other regulations	-		

OTHER HAZARDS

This material is a static electricity accumulator.
Certain factors, such as the temperature of the liquid, the presence of contaminants, the addition of antistatic additives and filtration can significantly influence the conductivity of the liquid and modify the ability to accumulate static electricity.

3.COMPOSITION/INFORMATION ON INGREDIENTS

General composition: A complex combination of hydrocarbons obtained from a catalytic hydrodesulfurization process. It consists of hydrocarbons having carbon numbers predominantly in the range of C7 through C12 and boiling in the range of approximately 145°C to 218°C.

Main components	Range %	Classification	S Phrases
Naphtha (petroleum), hydrodesulfurized heavy. (Benzene < 0.01%) CAS# 64742-82-1 CE# 265-185-4	100		

4. FIRST-AID MEASURES

Inhalation: Move the affected person to fresh air. If breathing is difficult, administer oxygen; in case of respiratory arrest, apply artificial respiration. Call for medical attention.

Ingestion/Aspiration: DO NOT INDUCE VOMITING. Call for medical attention urgently.

Contact skin/eyes: Remove contaminated clothing. Wash the affected area thoroughly with soap and water. Call for medical attention . Flush with copious amounts of water for up to 15 minutes. Call for medical attention.

General measures: Call for medical attention urgently.

5. FIRE-FIGHTING MEASURES

Extinguishing agents: CO₂, foams, water spray and dry chemicals.

Non suitable extinguishing agents: WATER SHOULD NEVER BE USED DIRECTLY.

Combustion products: CO₂ and H₂O; CO and toxic/irritant vapours, in case of incomplete combustion.

Special measures: Move container from fire area if it can be done without risk. Apply cooling water to the containers sides exposed to flames until well after fire is out. Stay away from tank. In case of massive fire in cargo area, use unmanned hose holder or monitor nozzles; if fire goes out of control, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank wall due to fire. Consult and follow existing emergency standard procedures.

Special hazards: Flammable/combustible liquid. Vapours may form explosive mixtures with air. May be ignited by heat, sparks, static electricity or flames. Vapour may travel to remote ignition sources and flash back. Empty containers may explode in heat of fire. Vapour explosion hazard indoors, outdoors or in sewers. Runoff to drains or sewers may create fire and explosion hazard.

Protective equipment: Firefighters' protective clothing. At high concentration of vapours and/or fumes, self-contained breathing apparatus will be needed.

6. ACCIDENTAL RELEASE MEASURES

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

Personal precautions: Isolate the area. Avoid vapour inhalation and skin and eye contact with the product. Eliminate all ignition sources. Do not smoke in the area.

Cleanup methods: Small spillages: Take up with non-combustible absorbent materials. Transfer to sealed containers for later disposal.

Large spillages: Avoid product dispersion with mechanical barriers. Dike far ahead of liquid spill and aspirate liquid into closed containers for later disposal.

Personal protection: Self-contained breathing apparatus, suitable protective clothing, safety goggles and gloves to prevent contact with the product.

7. HANDLING AND STORAGE

Handling:

General precautions: Good local exhaust ventilation in confined areas (according to legislation in force) to avoid vapours, mists or aerosols formation. Avoid exposures to vapours. During transfer use gloves and goggles in case of risk of splashes. Do not smoke in the areas where the product is handled. Earthed equipment is needed during transfer.

This material can accumulate static electric charges that can cause an electrical spark (source of ignition). When the material is handled in bulk, an electrical spark can ignite vapors of flammable liquids or debris that may be present (for example, during cargo transfer operations). Use proper procedures for grounding. However, ground connections may not eliminate the danger of static accumulation. Place the container to earth during filling and maintain contact with it. Do not use electronic equipment (including, but not limited to, cell phones, computers, calculators, pagers and other devices) in the vicinity of filling areas, unless they are properly certified as safe.

Consult the applicable local regulations for guidance. Additional references include the American Petroleum Institute 2003 (Protection against ignition from static, lightning and parasitic currents) or National Fire Protection Agency 77 (recommended practice in static electricity) or CENELEC CLC / TR 50404 (Electrostatics - Code of conduct to avoid risks due to electricity or static) or IEC TS 60079-32-1: Electrostatic Hazards, Guidelines or ASTM D4865: Standard Guide for Generation and Dissipation of Static Electricity in Petroleum Fuel Systems.

Specific conditions: Special procedures during bulk loading, cleaning and maintaining the tanks to avoid vapour exposure. Make sure that tanks have been thoroughly purged before performing any cleaning or maintaining procedure. If nitrogen has been used for purging, eliminate completely the nitrogen atmosphere before entering the tank. Nitrogen may cause immediate loss of consciousness.

Specific Use: Diluent.

Storage:

Temperature and decomposition products: The product decomposition may emit toxic and irritant fumes

Dangerous reactions: Flammable material.

Storage conditions: Keep the product in properly sealed and labelled containers in cool and well-ventilated place. Keep them away from heat and sources of ignition. Keep containers earthed.

Incompatible materials: Strong oxidants and acids.

8.EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection:

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

Respiratory protection: At high vapours concentration, self-contained breathing apparatus will be needed.

Skin protection: Solvent resistant gloves, suitable protective clothing and appropriate footwear are recommended.

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

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

Specific hygiene measures: Contaminated clothing should be changed immediately. Good work practices and the adoption of good personal hygiene measures reduce unnecessary exposures. 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.

Exposure controls:

Stoddard solvent:

TLV/TWA (ACGIH): 100 ppm

REL/TWA (NIOSH): 350 mg/m³

REL/Ceiling (NIOSH): 1800 mg/m³

VM & P naphtha:

TLV/TWA (ACGIH): 300 ppm

REL/TWA (NIOSH): 350 mg/m³

REL/Ceiling (NIOSH): 1800 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:Liquid.

pH: NP

Colour:25 min. (Saybolt).

Odour: Characteristic.

Boiling point: 145-218°C

Melting/Freezing point:

Flash point: 36.9°C min. C/C

Autoignition temperature: >200 °C

Explosive properties: Lower Explosive Limit: 1.1 %
Upper Explosive Limit: 6.0 %

Oxidizing properties: NP

Vapour pressure:

Density: 0.776 g/cm³

Surface tension: NP

Viscosity:

Vapour density:

Partition coefficient (n-octanol/water):

Water solubility: Insoluble.

Solubility: Miscible with benzene, alcohol, ether, chloroform and carbon disulphide.

Other data: Aromatic content: < 25%

Electric conductivity: 0 pS/m (Typical: <25 pS/m)

10. STABILITY AND REACTIVITY

Stability: Stable at room temperature. Flammable material at room temperature in presence of ignition sources.

Conditions to avoid: Exposure to flames, sparks or high temperatures.

Materials to avoid: Strong oxidants and acids.

Hazardous decomposition/combustion products: CO₂, H₂O, CO (in incomplete combustion), unburned hydrocarbons.

Polymerizations risk: NP

Conditions to avoid: NP

11. TOXICOLOGICAL INFORMATION

Routes of exposure: Inhalation. Contact with skin, eyes and ingestion.

Acute and chronic effects: Harmful: may cause lung damage if swallowed. Irritating to skin. Vapours and mists may cause respiratory tract irritation, drowsiness and dizziness. Repeated and prolonged exposures to high concentrations of vapours result in central nervous system damage.

Carcinogenicity: NP

Reproductive toxicity: This product is not a mammalian reproductive toxin.

Medical conditions wich increase hazard to exposure: Respiratory deficiencies and dermatological problems. Avoid the use of epinephrine because of possible adverse effects on the sensitized myocardium. Antibiotics are used if there is a specific indication, such as bacterial pneumonitis. Alcohol should not be ingested because it promotes intestinal absorption.

12. ECOLOGICAL INFORMATION

Pollutant potential:

Persistence and degradability: Biodegradation is expected to be the main fate process in soil and water. The rate of biodegradation depends on the temperature, the presence of a sufficient number of microorganisms capable of metabolizing the hydrocarbons and the concentration of product in or on soil or water. C7 to C12 hydrocarbons biodegradation is expected to be significant under environmental conditions favourable to microbial oxidation.

Mobility/bioaccumulative potential: The potential for bioaccumulation in aquatic or terrestrial ecosystems depends on the bioaccumulation potential of the individual hydrocarbon components. Water-soluble aliphatic and aromatic compounds may be expected to have low bioconcentration factors based on their octanol water partition coefficients.

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

13. DISPOSAL CONSIDERATIONS

Disposal methods (surplus): Incineration or recycling when possible.

Waste: Liquids and solids from industrial processes or other uses.

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

Handling: Contaminated materials should be regarded as toxic and dangerous waste and 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 usual transport conditions.

Additional Information:

LAND TRANSPORT:

Proper shipping name :	PETROLEUM DISTILLATES N.O.S
UN Number :	1268
Hazard class :	3
Hazard identification number :	30
Packing group :	III
Exempt amount :	333

AIR TRANSPORT (ICAO/IATA) :

Proper shipping name :	PETROLEUM DISTILLATES N.O.S
UN Number :	1268
Hazard class :	3
Packing group :	III
CRE :	10L
Passenger and cargo aircraft :	Y344, 10L / 355, 60L
Cargo aircraft only :	366, 220L

MARITIME TRANSPORT (IMDG/IMO) :

Proper shipping name :	PETROLEUM DISTILLATES N.O.S
UN Number :	1268
Hazard class :	3
Packing group :	III
Marine pollutant :	YES
Stowage and segregation :	Category A
Ems :	F-E; S-E

15.REGULATORY INFORMATION

CLASIFICACION: LABELLING

Symbols:

Phrases R:

[1502.050]

Phrases S:

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:

Globally Harmonized System of Classification and Labelling of Chemicals, fifth revised edition, 2013 (GHS 2013 - 'ST / SG / AC 10/30 / Rev.5'). The fifth edition is taken into consideration because it is the one valid for Argentina according to Resolution 801/2015 of the SRT. In any case, the information is contrasted with Revision 7 ('ST / SG / AC 10/30 / Rev.7') and clarification is made if required.
Agreement on Transport of Dangerous Products within the MERCOSUR, MERCOSUR\CMC\DEC N° 2/94.
European Agreement on the International Carriage of Dangerous Goods by Road (ADR 2017) and amendments.
Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2017) and amendments.
International Maritime Dangerous Goods Code (IMDG 2016 - Amendment 38-16), International Maritime Organization (IMO).
IBC Code 2016, IMO, IMO Resolution MSC.369 (93).
Regulations of the International Air Transport Association (IATA 58 ed., 2017) on the transport of dangerous goods by air.

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: benzene and aromatic contents.

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.