AGUARRÁS MINERAL

SAFETY DATA SHEET According to GHS, 5th Revision



SECTION 1 - IDENTIFICATION

1.1 Product identifier

Product name: AGUARRÁS MINERAL

Product Identifier:

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Diluent.

1.3 Details of the supplier of the Safety Data Sheet

YPF S.A.

Macacha Güemes n° 515, (C1106BKK) Puerto Madero, Ciudad Autónoma de Buenos Aires, Argentina. P: +54 11 5441 2000. F: +54 11 5441 5796.

1.4 Emergency telephone number

Emergency phone (24 hours): CIQUIME 0800 222 2933 (from Argentina)

+54 11 4552 8747 (other countries)

SECTION 2 – HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to the Globally Harmonized System

Flammable liquids (Category 3)

Skin irritation (Category 2) - Eye irritation (Category 2A)

Specific target organ toxicity – single exposure (Category 3)

Aspiration hazard (Category 1)

Short-term (acute) aquatic hazard (Category 2)

Long-term (chronic) aquatic hazard (Category 2)

2.2 Label elements

Pictogram:



Signal word:

Hazard statements:

H226 - Flammable liquid and vapour.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

H401 + H411 - Toxic to aquatic life with long lasting effects.

Revision: 17 Revision date: October, 2023

Precautionary statements:

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 - Do not breathe fume, mist, vapours or spray.

P264 - Wash thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves.

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P370 + P378 - IN CASE OF FIRE: Use water spray, foam, dry chemical or carbon dioxide to extinguish.

P391 - Collect spillage.

P403 + P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

P501 - Dispose of contents and/or container in accordance with national and international regulations.

2.3 Other hazards

Static accumulator: this material is a static accumulator. Liquid temperature, the presence of contaminants, the addition of antistatic additives and/or filtration can change this property.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance

Naphtha (petroleum), hydrodesulfurized heavy (CAS 64742-82-1): 100% - Flam. Liquid 2; Skin Irrit. 2; STOT Single Exp. 3; Asp. Tox. 1; Aquatic Acute 2

3.2 Mixtures

Does not apply.

SECTION 4 – FIRST-AID MEASURES

4.1 Description of first aid measures

General advice: Avoid exposure to the product and take appropriate protective measures. Consult your

doctor with the safety data sheet.

Inhalation: Move victim to an area with clean air. Keep her at rest. If not breathing, apply artificial

respiration. Call the doctor.

Skin contact: Immediately wash skin with plenty of soap and water for at least 15 minutes.

Eye contact: Immediately flush eyes with water for at least 15 minutes, keeping eyelids open. If you

have contact lenses, remove them after 5 minutes and continue rinsing eyes. Consult

the doctor.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with water. If the victim is unconscious, call

a doctor immediately, and turn her on her side to reduce the risk of aspiration. Do not

give the victim anything to drink or eat.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: May cause nausea, dizziness, and headache.

Skin Contact: May cause irritation. Eye Contact: May cause irritation.

Ingestion: May cause nausea, vomiting, and stomach upset.

4.3 Indication of any immediate medical attention and special treatment needed

Medical advice: If swallowed, material may be aspirated into the lungs and cause chemical pneumonia. Treat properly. For more information, consult a Poison Center.

SECTION 5 – FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Use dry chemical, foam, sand or carbon dioxide (CO₂). Use the product according to surrounding materials. DO NOT USE water jets as it may spread fire.

5.2 Special hazards arising from the substance or mixture

FLAMMABLE. Container and/or tank subjected to heat may unexpectedly explode and project dangerous fragments. Vapors are heavier than air and may spread along floors.

5.3 Advice for firefighters

5.3.1 Firefighting instructions

Spray containers and/or tanks with water to keep them cool.

Continue cooling with water after fire is out.

Prevent water used for fire control from entering watercourses, drains or springs.

Hot material can cause violent boiling when in contact with water, being able to project and cause serious burns.

5.3.2 Protective clothing

Use SCBA and structural protection clothing for firefighters.

5.3.3 Hazardous combustion products

In case of fire, it may release irritating and/or toxic fumes and gases, such as carbon monoxide, and other substances derived from incomplete combustion.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Evacuate personnel to a ventilated area.

6.1.2 For emergency responders

Wear positive pressure self-contained breathing apparatus and fire-fighting protective clothing (includes fire-fighting helmet, jacket, pants, boots, and gloves). Avoid contact with the product during operations.

For non-fire spills or post-fire cleanup phase, wear chemical protective clothing specifically recommended by the manufacturer.

Eliminate all sources of ignition (no smoking, flares, sparks or open flames in danger area). Ground all equipment used to handle the product. Stop leak if you can do it without risk. Do not touch contaminated objects or areas or walk on the spilled material. You can use foam to reduce the emission of vapors. Do not allow reuse of spilled product.

6.2 Environmental precautions

Contain spilled liquid with a dam or barrier. Prevent entry into navigable waterways, sewers, basements or uncontrolled confined areas.

6.3 Methods and material for containment and cleaning up

Contain and recover the liquid when possible. Collect the liquid product with sand, vermiculite, earth, or inert absorbent material and then completely clean the affected area. Dispose of the waste properly. Dispose of the water and collected waste in marked containers for disposal as waste.

6.4 Reference to other sections

See Section 8 - Exposure Controls and Personal Protection, and Section 13 - Disposal considerations.

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling

Do not eat, drink or smoke during handling. Avoid contact with eyes, skin and clothing. Wash arms, hands, and nails after handling. Facilitate access to safety showers and eyewash emergency.

Use equipment and clothing that prevents the accumulation of electrostatic charges. Monitor and avoid explosive atmosfere formation.

This material can accumulate static electric charges that can cause an electrical spark (source of ignition). Place the container to earth during filling and maintain contact with it. Do not use electronic equipment in the vicinity of filling areas, unless they are properly certified as safe.

7.2 Conditions for safe storage, including any incompatibilities

Store in a clean, dry, well-ventilated area. Protect from sunlight.

The type of container used to store the material can affect the accumulation and dissipation of electrostatic charges.

The stored containers must be grounded and bonded together. The fixed containers, the transfer containers and their associated equipment must be grounded and bonded to prevent the accumulation of electrostatic charge. Other information: The vapors present in the container may be at the explosion / flammability limit and, therefore, be flammable.

Packaging materials: Supplied by the manufacturer.

Incompatibilities: Keep away from Oxidizing mineral acids, strong oxidizing agents.

7.3 Specific end use(s)

Diluent.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

TLV-TWA (ACGIH):	100 ppm; Stoddard solvent
TLV-STEL (ACGIH):	N/D
PEL (OSHA):	500 ppm; Stoddard solvent
REL:	350 mg/m³; Stoddard solvent
REL-C:	1800 mg/m³; Stoddard solvent
IDLH (NIOSH):	20 000 mg/m³; Stoddard solvent

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Keep workplace ventilated. The normal routine ventilation is usually adequate. Local hoods should be used for operations that produce or release large amounts of product. In low or confined areas should be provided mechanical ventilation. Provide showers and eyewash stations.

8.2.2. Individual protection measures, such as personal protective equipment

Eye and face protection: When necessary, wear safety glasses complying with EN 166.

Skin protection: When necessary, wear impermeable protective LLDPE, nitrile, PVA or Viton - do

not use butyl, rubber, neoprene or PVC - gloves (complying with standards EN

374), clothes and safety footwear resistant to chemicals.

Respiratory protection: When necessary, wear an organic gas or steam (A) respirator. Special attention to

oxygen levels in the air should be paid.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Liquid.

Colour: min. 25 [Saybolt]
Odour: Characteristic.

Odour threshold: N/D pH: N/A Melting point: N/D

Boiling point: 145°C to 218°C (293°F to 424,4°F)

Evaporation rate: N/D

Flammability: The product is flammable.

Flash point: min. 37°C (98,6°F)

Explosive limits: 6,0% - 1,1%

Auto-ignition temperature: > 200°C (392°F)

Decomposition temperature: N/D
Vapour pressure (20°C): N/D
Vapour density (air=1): N/D

Relative density (20°C): 0,776 g/cm³

Solubility (20°C): Insoluble in water. Miscible with benzene, alcohol, ether, chloroform and

carbon disulfide.

Partition coefficient (logKo/w): N/D
Viscosity (20°C): N/D
Henry constant (20°C): N/D

Explosive properties: Not explosive. According to column 2 of Annex VII of REACH, this study is

not required because in the molecule no chemical groups are associated

with explosive properties.

Oxidizing properties: According to column 2 of Annex VII of REACH, this study is not necessary

because the substances present in the product, due to their chemical structures, are incapable of reacting exothermically with combustible

materials.

9.2 Other information

Other properties: Total aromatics: < 25%

Electrical Conductivity: 0 pS/m (Typical Value: <25 pS/m)

SECTION 10 – STABILITY AND REACTIVITY

10.1. Reactivity

It is not expected that product reactions or decomposition may occur under normal storage conditions. It does not contain organic peroxides. It is not corrosive to metals. It does not react with water.

10.2. Chemical stability

The product is chemically stable and it does not require stabilizers.

10.3. Possibility of hazardous reactions

No hazardous polymerization is expected.

10.4. Conditions to avoid

Avoid high temperatures, open flames, sparks and other sources of ignition.

10.5. Incompatible materials

Keep away from Oxidizing mineral acids, strong oxidizing agents.

10.6. Hazardous decomposition products

When heated, it may release toxic and irritating vapors. In case of fire, see section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Bibliographic data are presented for reference.

LD50 oral (bibl): > 5000 mg/kg LD50 der (bibl.): > 2000 mg/kg LC50 inh. (4 hs., bibl.): > 5 mg/l Skin irr. (rabbit, estim.): irritant Eye irr. (rabbit, estim.): irritant

Skin sens (Guinea pig, estim.): not sensitising Resp. sens (Guinea pig, estim.): not sensitizing

Carcinogenicity, mutagenicity, reproductive toxicity and other effects:

Carcinogenicity: NOTE P: The carcinogenic classification is not applicable since the product contains less than 0.1% w/w of benzene.

Mutagenicity: NOTE P: The mutagenic classification is not applicable since the product contains less than 0.1% w/w of benzene.

tox. Repr.: The oil cut used in the formulation of the product does not contain components that are classified as toxic for reproduction by the GHS with effects on sexual function and fertility.

Teratogenicity: The oil cut used in the formulation of the product does not contain components that are classified as toxic for reproduction by the GHS with effects on the development of offspring.

STOT-SE: May cause narcotic effects, with drowsiness, dizziness, and vertigo.

STOT-RE: NOTE OIN 8: the classification of toxic for target organs after prolonged or repeated exposure category 1 does not apply because it does not classify as carcinogenic.

Aspiration: The product is toxic by aspiration and its viscosity makes it possible to incorporate it by this route, which is why it is classified as dangerous by aspiration.

Acute and delayed effects:

Routes of exposure: Inhalation, skin and eye contact, and ingestion.

Inhalation: May cause nausea, dizziness, and headache.

Skin Contact: May cause irritation. Eye Contact: May cause irritation.

Ingestion: May cause nausea, vomiting, and stomach upset.

SECTION 12 – ECOLOGICAL INFORMATION

12.1. Toxicity

Bibliographic data of its component are presented for reference.

EC50 (fish, 96 h): 1 - 10 mg/l EC50 (inv., bibl., 48 h): 1 - 10 mg/l EC50 (algas, bibl., 72 h): 1 - 10 mg/l NOEC (fish, 14 d): 1 - 10 mg/l NOEC (inv., 14 d): 1 - 10 mg/l

12.2. Persistence and degradability

BIODEGRADABILITY (estimated): Biodegradation is expected to be the main end process in soil and water. The rate of biodegradation depends on the temperature, the presence of a sufficient number of microorganisms capable of metabolizing hydrocarbons and the concentration of the product in the soil or in the water. Biodegradation of C7-C12 hydrocarbons is expected to be significant under favorable environmental conditions by microbial oxidation.

12.3. Bioaccumulative potential

Log Ko/w: N/D

BIOCONCENTRATION FACTOR - BCF (OCDE 305): The bioaccumulation potential in aquatic and terrestrial ecosystems is dependent on the bioaccumulation potential of the individual components. Water-soluble aromatic and aliphatic components exhibit a low bioconcentration factor based on their octanol-water partition coefficients.

12.4. Mobility in soil

HENRY CONSTANT (20°C): N/D

LogKoc: N/D

12.5. Results of PBT and vPvB assessment

This product is a UVCB. This product does not contain PBT constituents included in the SVHC candidate list at concentrations above 0.1%.

12.6. Other adverse effects

AOX and metal containing: Does not contain organic halogens nor metals.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of excess product and empty containers according to current legislation for the protection of the environment and hazardous waste. Disposal procedure: incineration.

SECTION 14 – TRANSPORT INFORMATION

14.1 Transport by land

Proper Shipping Name: PETROLEUM PRODUCTS, N.O.S.

UN/ID Number: 1268

Hazard class: 3

Packing group:

Hazard identification number: 30

Excepted and limited quantity: 1000 / 5 L

Special provisions: 223



14.2 Air transport (ICAO/IATA)

Proper Shipping Name: PETROLEUM PRODUCTS, N.O.S.

UN/ID Number: 1268

Hazard class: 3
Packing group: III

PAX and Cargo Packing instructions: Y344; 10L / 355; 60L

Cargo Packing instructions: 366; 220L

ERC: 3L

Special provisions:

14.3 Sea transport (IMO)

IMDG Code

Proper Shipping Name: PETROLEUM PRODUCTS, N.O.S.

UN/ID N°: 1268
Hazard class: 3
Packing group: III

EMS: F-E, S-E

Stowage and manipulation: Category E

Segregation: -

Marine pollutant: YES

Proper Shipping Name: UN1268; PETROLEUM PRODUCTS, N.O.S.; Class 3; PG III; MARINE POLLUTANT;

Flash point min. 37°C (98,6°F) c.c.

SECTION 15 - REGULATORY INFORMATION

Not dangerous for the ozone layer.

Volatile organic compounds (VOC's): N/D

NFPA: 120-EPP: G

Regulation

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 2023) and amendments. Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2023) and amendments. International Maritime Dangerous Goods Code (IMDG 2020 - Amendment 41-22), International Maritime Organization (IMO).

Regulations of the International Air Transport Association (IATA 64 ed., 2023) on the transport of dangerous goods by air.





SECTION 16 – OTHER INFORMATION

16.1 Abbreviations and acronyms

N/A: not applicable. N/D: no data available.

CAS: Chemical Abstracts Service

IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental In-

dustrial Hygienists.

TLV: Threshold Limit Value TWA: Time Weighted Average STEL: Short Term Exposure

REL: Recommended Exposure Limit. PEL: Permissible Exposure Limit.

INSHT: National Institute for Safety and Health at

Work.

ATE: Acute toxicity estimate.

LD50: Lethal Dose.

LC50: Lethal Concentration.

EC50: Average Effective Concentration. IC50: Inhibitory Concentration Medium.

DENOMINATION OF GHS CLASSES

Aer.: aerosols

Oxid. Gas: oxidizing gas

Compressed gas: compressed gas Dissolved gas: dissolved gas Flam. Gas: flammable gas

Liquefied Refr. Gas: refrigerated liquefied gas

Liquefied gas: liquefied gas Oxid. Liquid: oxidizing liquid Flam. Liquid: flammable liquid Pyr. Liq.: pyrophoric liquid Met. Corr.: corrosive for metals Org. Perox.: organic peroxide

Water React. Flam. Gas: substance reactive with wa-

ter, which emits flammable gases

Oxid. Solid: oxidizing solid Flam. Solid: flammable solid Asp Tox.: aspiration toxicity Carc.: carcinogenicity

Skin Corr. / Irrit.: Corrosion / skin irritation

Eye Damage / Irrit .: Serious eye damage / eye irrita-

tion

Lac.: toxic for reproduction - lactation

Muta.: mutagenicity

Repr.: toxic for reproduction Skin Sens.: skin sensitizer

Resp. Sens.: respiratory sensitizer

STOT Rep. Exp.: Specific target organ toxicity - re-

peated exposure

STOT Single Exp.: Specific target organ toxicity - sin-

gle exposure

Acute Tox.: Acute toxicity

Aquatic Acute: Hazardous to the aquatic environ-

ment - acute danger

Aquatic Chronic: Dangerous for the aquatic environ-

ment - chronic danger

Ozo.: Dangerous for the ozone layer.

16.2 Key literature references and sources for data

International Agency for Research on Cancer (IARC), classification of carcinogens.

 $Hazard\ Classification\ and\ Labeling\ of\ Petroleum\ Substances\ in\ the\ European\ Economic\ Area-2020,\ CONCAWE,$

Brussels, October 2020

European Chemicals Agency - ECHA

GESTIS-Stoffdatenbank, IFA, DGUV, Germany

Annex VI of Regulation (EC) No. 1272/2008, on classification, labeling and packaging of substances and mixtures

(CLP Regulation)

US National Library of Medicine - PUBCHEM

eChem Portal, OECD

16.3 Classification and procedure used to derive the classification for mixtures

The classification was performed based on chemical analogues and product information compiled by CIQUIME. SECTION 2: classification by analogy with other products, and based on product data in CIQUIME database. SECTION 9: product data.

SECTION 11 and 12: calculation of acute toxicity estimation according to GHS, product data and bibliographic data.

Change's control: v.17 - Format update.

V.16 - Phrase and format update. General revision.

V.15 - CAS update and re-classificaction.

V.14 - Adaptation to the SGA. Correction of benzene content and addition of total aromatics.

16.4 Disclaimer

This information only concerns the above-mentioned product and is not to be valid for other (s) product (s) or in any process. This safety data sheet provides health and safety information. The information is to our best knowledge, correct and complete. It is given in good faith but without warranty. The product should be used in applications consistent with our product literature. Individuals handling this product should be in-formed of the recommended safety precautions and should have access to this information. For any other use, exposure should be evaluated so that they can implement appropriate handling practices and training programs to ensure safe operations in the workplace.

It remains the user's own responsibility that this information is appropriate and complete for the special use of this product.