

## SECTION 1 - IDENTIFICATION

### 1.1 Product identifier

Product name: **LAS REGIONAL**

Product Identifier: -

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

Relevant identified uses: Industrial use.

### 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**

Acute toxicity, oral (Category 4)

Skin corrosion (Category 1C) - Serious eye damage (Category 1)

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

Long-term (chronic) aquatic hazard (Category 3)

### 2.2 Label elements

**Pictogram:**



**Signal word:**

DANGER

**Hazard statements:**

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H401 + H412 - Toxic to aquatic life with long lasting effects.

**Precautionary statements:**

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

P264 - Wash thoroughly after handling.

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.

P405 - Store locked up.

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

### 2.3 Other hazards

There are no other additional hazards of consideration in the classification.

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Substance

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. (CAS 85536-14-7): 100% - Acute Tox. 4; Skin Corr. 1C; Eye Damage 1; Aquatic Acute 2; Aquatic Chronic 3

### 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 CPR. Call the doctor.
Skin contact:	Immediately wash skin with plenty of soap and water for at least 15 minutes. Do not neutralize or add substances other than water.
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 respiratory tract irritation.

Skin Contact: May cause skin burns.

Eye contact: may cause burns.

Ingestion: may cause burns.

### 4.3 Indication of any immediate medical attention and special treatment needed

Medical advice: Perform symptomatic treatment. For more information, consult a Poison Center.

## SECTION 5 – FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Use dry chemical, alcohol-resistant foam, sand or carbon dioxide (CO<sub>2</sub>). Some foams can react with the product. DO NOT USE water jets as it may spread fire.

### 5.2 Special hazards arising from the substance or mixture

The liquid will not ignite easily, but it can decompose and generate corrosive and/or toxic vapors.

### 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.

#### 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, sulfur oxides, 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

In case of spill with fire, avoid contact with the product. If contact is likely, wear a fully chemical resistant firefighting suit and self-contained breathing apparatus. If firefighting gear is not available, wear chemical-resistant clothing and self-contained breathing apparatus and fight fire from a remote location.

In the event of a non-fire spill, or in the post-fire cleanup phase, wear chemical resistant clothing that is specifically recommended by the manufacturer.

Eliminate all sources of ignition (no smoking, flares, sparks or open flames in danger area). Evacuate people to a ventilated area. Do not touch contaminated objects or areas or walk on the spilled material. Use self-contained breathing apparatus and skin and eye protection. Wear impervious protective gloves. Ventilate immediately, especially in low areas where vapors may accumulate. 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.  
Neutralization: calcium hydroxide or sodium bicarbonate. Neutralize carefully and with a specialist supervision. 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. Avoid inhalation of the product. Use PPE. Keep container closed. Use with adequate ventilation. Handle containers carefully.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a clean, dry, well-ventilated area. Protect from sunlight. Periodically check the containers to warn of losses and breakages. Store at temperatures between 15 and 25 °C, in rooms with a waterproof and resistant to corrosion floor.

Packaging materials: Supplied by the manufacturer.

Incompatibilities: Keep away from Oxidizing mineral acids, alcohols and glycols, aldehydes, amines, azo compounds, hydrazines, caustics, cyanides, dithiocarbamates, inorganic fluorides, isocyanates, metals, sulfides, epoxides, nitriles, strong oxidizing and reducing agents.

### 7.3 Specific end use(s)

Industrial use.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

TLV-TWA (ACGIH):	N/D
TLV-STEL (ACGIH):	N/D
PEL (OSHA):	N/D
IDLH (NIOSH):	N/D

## 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 PVC, nitrile or butyl 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:	Viscous liquid.
Colour:	less to 40 (KLETT)
Odour:	Disulfide characteristic.
Odour threshold:	N/D
pH:	N/D
Melting point:	6,5°C (43,7°F)
Boiling point:	189°C (372,2°F)
Evaporation rate:	N/D
Flammability:	The product is not flammable.
Flash point:	197,4°C (387,3°F)
Explosive limits:	N/D
Auto-ignition temperature:	N/D
Decomposition temperature:	N/D
Vapour pressure (20°C):	N/D
Vapour density (air=1):	N/D
Relative density (20°C):	1,050 g/cm <sup>3</sup>
Solubility (20°C):	Emulsifiable in water.
Partition coefficient (logKo/w):	N/D
Viscosity (20°C):	1451 cSt
(40°C)	347 cSt
Explosive properties:	Not explosive. This study is not required because in the molecule no chemical groups are associated with explosive properties.

Oxidizing properties: 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: Molecular weight: 326 g/mol  
Thermal conductivity: 0.13 W/m °C  
Free H<sub>2</sub>SO<sub>4</sub> content: 1.30%  
Specific heat: 1.6 kJ/kg °C

# SECTION 10 – STABILITY AND REACTIVITY

## 10.1. Reactivity

Product reactions or decompositions are not expected to occur under normal storage conditions. Does not contain organic peroxides. May be corrosive to metals. Does not react with water.

## 10.2. Chemical stability

The product is chemically stable and does not require stabilizers.

## 10.3. Possibility of hazardous reactions

Hazardous polymerization is not expected.

## 10.4. Conditions to avoid

Avoid high temperatures and contact with metals.

## 10.5. Incompatible materials

Keep away from Oxidizing mineral acids, alcohols and glycols, aldehydes, amines, azo compounds, hydrazines, caustics, cyanides, dithiocarbamates, inorganic fluorides, isocyanates, metals, sulfides, epoxides, nitriles, strong oxidizing and reducing 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.  
Oral LD50 (bibl.): 1470 mg/kg  
LD50 der (bibl.): not applicable because it is corrosive.  
LC50 inh. (4 hours, bibl.): corrosive to the respiratory tract.  
Skin irr. (rabbit, estim.): corrosive  
Eye irr. (rabbit, estim.): corrosive  
Skin sens (Guinea pig, estim.): not sensitising

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

**Carcinogenicity, mutagenicity, reproductive toxicity and other effects:**

Carcinogenicidade: Não há informação disponível sobre qualquer componente deste produto presente em níveis maiores do que ou iguais a 0,1%, que é classificada como provável, possível ou confirmado carcinógeno humano pela Agência Internacional de Pesquisa sobre o Câncer (IARC).

Mutagenicidade: Não existem componentes deste produto, presentes em concentração maior ou igual a 0,1%, que se classifiquem como mutagênicos de acordo com o SGH.

Tox. Repr.: Não existem componentes deste produto, presentes em concentração maior ou igual a 0,1%, que classifiquem como perigosos para reprodução de acordo com o SGH.

Teratogenicidade: Não existem componentes deste produto, presentes em concentrações maiores ou iguais a 0,1%, que se classifiquem como teratogênicos de acordo com o SGH.

STOT-SE: Não existem componentes deste produto, presentes em concentração maior ou igual a 1%, que classifiquem como tóxicos para órgãos-alvo, de acordo com o SGH.

STOT-RE: Não existem componentes deste produto, presentes em concentração maior ou igual a 1%, que classifiquem como tóxicos para órgãos-alvo de acordo com o SGH.

Aspiração: Não existem componentes deste produto, presentes em concentração maior ou igual a 10%, que se classifiquem como tóxicos por aspiração de acordo com o SGH.

**Acute and delayed effects:**

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

Inhalation: May cause respiratory tract irritation.

Skin Contact: May cause skin burns.

Eye contact: may cause burns.

Ingestion: may cause burns.

## SECTION 12 – ECOLOGICAL INFORMATION

### 12.1. Toxicity

There is no information about the ecotoxicity of the product, but acute toxicity estimations are presented. ATE-

EC50 (fish, calc., 96 h): 1,67 mg/l

ATE-EC50 (inv., calc., 48 h): 2,9 mg/l

ATE-EC50 (algae, calc., 72 h): 3,1 mg/l

ATE-NOEC (fish, calc., 14 d): 1 - 10 mg/l

ATE-NOEC (inv., calc., 14 d): 1 - 10 mg/l

PNEC (water): 268 µg/l; 4-C10-C13-sec-alkylbenzenesulfonic acid

PNEC (sea): 26.8 µg/l; 4-C10-C13-sec-alkylbenzenesulfonic acid

PNEC-STP: 3.43 mg/l; 4-C10-C13-sec-alkylbenzenesulfonic acid

### 12.2. Persistence and degradability

BIODEGRADABILITY (OECD): 94% in 28 days - easily biodegradable.

### 12.3. Bioaccumulative potential

Log  $K_{ow}$ : N/D

BIOCONCENTRATION FACTOR - BCF (OCDE 305): N/D

### 12.4. Mobility in soil

HENRY CONSTANT (20°C): N/D

LogKoc: N/D .

### 12.5. Results of PBT and vPvB assessment

This product does not meet the PBT criteria of Annex XIII of REACH. This product does not meet the vPvB criteria in Annex XIII of REACH.

### 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:	ARYLSULPHONIC ACIDS, LIQUID
UN/ID Number:	2586
Hazard class:	8
Packing group:	III
Hazard identification number:	80
Excepted and limited quantity:	1000 / 5 L
Special provisions:	-



### 14.2 Air transport (ICAO/IATA)

Proper Shipping Name:	ARYLSULPHONIC ACIDS, LIQUID
UN/ID Number:	2586
Hazard class:	8
Packing group:	III
PAX and Cargo Packing instructions:	Y841; 1L / 852; 5 L
Cargo Packing instructions:	856; 60 L
ERC:	8L
Special provisions:	A803



### 14.3 Sea transport (IMO)

#### IMDG Code

Proper Shipping Name:	ARYLSULPHONIC ACIDS, LIQUID
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UN/ID N°: 2586  
Hazard class: 8  
Packing group: III  
EMS: F-A, S-B  
Stowage and manipulation: Category B  
Segregation: –  
Marine pollutant: NO  
Proper Shipping Name: UN2586; ARYLSULPHONIC ACIDS, LIQUID; Class 8; PG III



## SECTION 15 – REGULATORY INFORMATION

Not dangerous for the ozone layer.

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

NFPA: 3 0 0 COR- 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 Industrial 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 water, 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 irritation  
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 - repeated exposure  
STOT Single Exp.: Specific target organ toxicity - single exposure  
Acute Tox.: Acute toxicity  
Aquatic Acute: Hazardous to the aquatic environment - acute danger  
Aquatic Chronic: Dangerous for the aquatic environment - 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 hazard extrapolation and based on product data.  
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.1 - Adaptation to the GHS.  
The partial or total modification of this file is not allowed, including the renown of the product, without the authorization of CIQUIME S.R.L.

## 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.