In accordance with Globally Harmonized System of Classification and Labelling of Chemicals (GHS)- Chapter 1.5 and Annex 4

SAFETY DATA SHEET

Product: GASOLINA A

Revision: 01	Date: 06/13/2024	Pages: 1/9

1 - IDENTIFICATION

GHS Product identifier:	GASOLINA A
Other means of identification:	GAS620
Recommended use of the chemical:	Fuel.
Specific restrictions on use:	There are not known restrictions on use.
Supplier`s details:	Acelen **Address**: ROD BA 523, KM 4, MATARIPE, CEP: 43900-000 - BA - Brasil. **Phone number**: (71) 3511-8000 / (11) 5225-8900
Emergency phone number:	EMERGENCIall: 0800 729 2756 / (11) 94759-7282 (Whatsapp) (24h)

2 - HAZARD IDENTIFICATION

Classification of the substance or mixture:	Flammable Liquids - Category 1; Skin Corrosion/Irritation - Category 2; Germ Cell Mutagenicity - Category 1B; Carcinogenicity - Category 1A; Reproductive Toxicity - Category 2; Specific Target Organ Toxicity – Single Exposure - Category 3 - Narcotic; Aspiration Hazard - Category 1; Hazardous to the Aquatic Environment - Acute Hazard - Category 2; Hazardous to the Aquatic Environment - Chronic Hazard - Category 2.
Classification system adopted:	Globally Harmonized System of Classification and Labeling of Chemicals (GHS), United Nations.

GHS label elements, including precautionary statements

Pictograms:

Signal word:	DANGER
Hazard statement(s):	H224 Extremely flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H340 May cause genetic defects. H350 May cause cancer. H361 Suspected of damaging fertility or the unborn child. H411 Toxic to aquatic life with long lasting effects.
Precautionary statement(s):	**PREVENTION:** P203 Obtain, read and follow all safety instructions before use. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment.

	P241 Use explosion-proof electrical, ventilating and lighting equipment. P242 Use non-sparking tools. P243 Take action to prevent static discharges. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves, protective clothing, eye protection, face protection and hearing protection. **RESPONSE TO EMERGENCY:** P301 + P316 IF SWALLOWED: Get emergency medical help immediately. P302 + P352 IF ON SKIN: Wash with plenty of water. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower]. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P318 IF exposed or concerned, get medical advice. P319 Get medical help if you feel unwell. P321 Specific treatment. P331 Do NOT induce vomiting. P332 + P317 If skin irritation occurs: Get medical help. P362 + P364 Take off contaminated clothing and wash it before reuse. P370 + P378 In case of fire: Use carbon dioxide (CO_2), foam, water mist and powder to extinguish. P391 Collect spillage. **STORAGE:** P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. **DISPOSITION:** P501 Dispose of contents and container in accordance with local regulations.
Other hazards which do not result in classification:	The material has no other hazards.

3 - COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE	Petroleum Substance Group: This class of petroleum substances is composed of complex naphthas, substances consisting of hydrocarbons with carbon chains from C4 to C12 and a boiling range of -20 to 230ºC.
Common chemical name:	Gasoline.
Common name(s), synonym(s) of the substance:	
CAS:	86290-81-5
Components contributing to the hazard:	Benzene (CAS 71-43-2): < 1.0 %.

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4 - FIRST-AID MEASURES

Description of necessary first-aid measures

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If the victim feels unwell, contact a TOXICOLOGICAL INFORMATION CENTER or a doctor. Bring this document.
Skin:	Wash exposed skin with sufficient amount of water to remove the material. Take off and isolate contaminated clothing and shoes. In case of skin irritation: contact a doctor. Bring this document.
Eye:	Wash carefully with water for several minutes. In case of use of contact lenses, remove them, if possible. Keep washing. If eyes irritation continues: Contact a doctor. Bring this document.
Ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse the victims mouth with water in abundance. If the victim feels unwell, contact a TOXICOLOGICAL INFORMATION CENTER or a doctor. Bring this document.
Most important symptoms/effects, acute and delayed:	Causes skin irritation with redness, pain and dryness. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness, may cause dizziness and nausea.
Indication of immediate medical attention and special treatment needed, if necessary:	Avoid contact with the material to help the victim. Keep victim warm and quiet. Symptomatic treatment should comprise mainly supportive measures such as correction of electrolyte disturbances, metabolic, and respiratory support. In case of skin contact do not rub the affected area.

5 - FIRE-FIGHTING MEASURES

Extinguishing media:	Appropriate: carbon dioxide (CO_2), foam, water mist and powder. Inappropriate: water directly onto the burning material.
Specific hazards arising from the chemical:	Combustion of the material or its packaging can form irritating and toxic gases such as carbon monoxide and dioxide. Very dangerous when exposed to excessive heat or other sources of ignition such as sparks, open flames or flames of matches and cigarettes, welding operations, pilot lights and electric motors. Can accumulate static charge by flow or agitation. Vapors from heated liquid can be ignited by static discharge. Vapors are heavier than air and tend to accumulate in low or confined areas, such as sewers and basements. Can travel great distances causing retrogression of the flame or new fires both in open environments in as confined ones. Containers may explode if heated.
Special protective actions for fire-fighters:	Use self-contained breathing apparatus (SCBA) operated in positive pressure mode and complete protective clothing. Containers and tanks involved in the fire should be cooled with water mist.

6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Prevent sparks or flames. Do not smoke. Do not touch damaged containers or spilled material without the use of appropriate clothing. Avoid exposure to the material. Stay in a safe place, with wind from behind. Use personal protective equipment as described in Section 8.
For emergency responders:	Wear complete PPE with safety glasses, safety gloves, suitable protective clothing and closed shoes. In case of leakage, where exposure is high, it is recommended to use a suitable respiratory protection mask.
Environmental precautions:	Avoid that the spilled material reaches waterways or sewage system.
Methods and materials for containment and cleaning up:	Use water mist or vapor suppressing foam to reduce the dispersion of vapors. Use natural barriers or spill containment. Collect spilled material and put it into containers. Adsorb the remaining material with dried sand, vermiculite or any other inert material. Put the adsorbed material in appropriate containers and remove them to a safe place. Use tools that do not cause sparks to collect absorbed material. For final destination, proceed pursuant to Section 13 of this SDS. Large spill: confine the liquid into a dike away from the spills for later and proper disposition. Water

mist can be used to reduce of vapors, but it wont prevent ignition in closed environments.

7 - HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe handling:	Handle in a ventilated area or with a general local exhaust/ventilation system. Avoid formation of vapors and mists. Handling the material can result in electrostatic charge buildup. All ignition sources must be extinguished from areas during use. Use proper grounding procedures. Use personal protective equipment as described in section 8. Avoid contact with incompatible materials.
General hygiene:	Wash hands and face thoroughly after handling and before eating, drinking, smoking or going to the bathroom. Contaminated clothing should be changed and washed before reuse. Remove clothing and protective equipment contaminated before entering eating areas.

Conditions for safe storage, including any incompatibilities

Technical measures for prevention of fire and explosion:	Keep away from heat, sparks, open flames and hot surfaces. - Do not smoke. Keep container tightly closed. Ground the container vessel and the receiver of the material during transfers. Only use anti-sparking tools. Avoid the accumulation of electrostatic charges. Use electrical equipment, ventilation and lighting explosion proof. Use personal protective equipment as described in Section 8.
Conditions for safe storage, including any incompatibilities:	Store in a well ventilated place, away from sunlight. Keep container closed. Keep away from high temperatures and ignition sources. It is not necessary addition of stabilizers and antioxidants to ensure the durability. This material may react dangerously with some incompatible materials as outlined in Section 10. Keep away from incompatible materials.
Packaging compatibilities:	Similar to the original packaging.
Inadequate packaging materials:	There are not known unsuitable material.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limit:	The values below apply to workplaces. - <u>Gasoline:</u> ACGIH - TLV - TWA: 300 ppm; ACGIH - TLV - STEL: 500 ppm. - <u>Benzene:</u> OSHA - PEL - TWA: 1 ppm (29 CFR 1910.1028, Benzene; 29 CFR 1910.1000 Table Z-2) (CFR); OSHA - PEL - STEL: 5 ppm (29 CFR 1910.1028, Benzene; 29 CFR 1910.1000 Table Z-2) (CFR); NIOSH - REL - TWA: 0.1 ppm (Ca) (AA); NIOSH - REL - STEL: 1 ppm; ACGIH - TLV - TWA: 0.5 ppm (*); ACGIH - TLV - STEL: 2.5 ppm (*). *: Also absorbed through the skin; Ca: Potential occupational carcinogen. AA: See NIOSH REL Appendix A; CFR: See mentioned item in OSHA CFR.
Biological limit:	- <u>Benzene:</u> ACGIH - BEI: Determinant: S-phenylmercapturic acid in urine. Sampling time: End of shift. Index: 25 µg/g creatinine. Notation: B. Determinant: t,t-muconic acid in urine. Sampling time: End of shift. Index: 500 µg/g creatinine. Rating: B.

	B: The determinant may be present in biological specimens collected from subjects who have not been occupationally exposed, at a concentration which could affect the interpretation of the results. Such background concentrations are incorporated in the BEI value.
Other limits and values:	- Benzene: Benzene does not have LT, but is the object of Annex 13-A, of NR15, where, for companies subject to the provisions of the Annex, the parameter VRT-MPT (average concentration of benzene in the air weighted by the time, for a working hours of eight hours, obtained in the breathing zone of workers, individually or from Homogeneous Exposure Groups - GHE, as defined in Normative Instruction No. 01). According to this Annex, the values established for the VRT-MPT are 1.0 ppm for the companies included in the Annex, with the exception of steel companies, and 2.5 ppm for the steel companies.
Appropriate engineering controls:	Promote mechanical ventilation and exhaust system to outside. These acts help reducing the exposition to the material. Maintain atmospheric concentrations of the constituents of the material below occupational exposure limits indicated.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection:	Wide-view glasses with splash protection.
Skin protection:	Safety shoes and safety clothing to protect the whole body from chemical splashes. Protective gloves against chemicals such as PVC.
Respiratory protection:	Use of respirator with filter against vapors and organic mists is recommended for average exposures above half the TLV-TWA. In cases where exposure exceeds 3 times the TLV-TWA value, use a self-contained, full facepiece, air-supplied respirator (SCBA) operated in positive pressure mode. Follow guidance from the Respiratory Protection Program (PPR), 4th ed. São Paulo: Fundacentro, 2016.
Thermal hazards:	It does not present thermal hazards.

9 - PHYSICAL AND CHEMICAL PROPERTIES

Aspect:	Liquid, viscous.
Color:	Colorless to yellowish.
Odour:	Characteristic.
Melting point/freezing point:	-20 °C (-4 °F).
Boiling point or initial boiling point and boiling range:	-20 to 215 °C (-4 to 419 °F).
Flammability:	Flammable.
Lower and upper explosion limit/flammability limit:	Upper: 7.6 % and Lower: 1.4 %.
Flash point:	< -40 °C (-40 °F) - Closed cup.
Auto-ignition temperature:	280 to 470 °C (536 to 878 °F).
Decomposition temperature:	Not available.
pH:	Not applicable.
Kinematic viscosity:	< 1 mm²/s at 40 °C (104 °F).

Solubility(ies):	Immiscible in water.
Partition coeficient n-octanol/water (log value):	Not available.
Vapour pressure:	45 to 62 kPa at 37.8 °C (100.04 °F).
Relative vapour density:	Not available.
Density and/or relative density:	Absolute density: 721.1 kg/m³ at 20 °C (68 °F).
Particle characteristics:	Not applicable.
Other information:	Not applicable.

10 - STABILITY AND REACTIVITY

Reactivity:	Reactivity is not to be expected under normal conditions of temperature and pressure.
Chemical stability:	Stable under normal temperature and pressure conditions.
Possibility of hazardous reactions:	Benzene: Reacts violently with iodine pentafluoride. Contact with oxidizing materials can start a fire. Explosively reacts with bromine pentafluoride, chlorine, chlorine trifluoride, diborane, nitric acid, nitrile perchlorate, liquid oxygen, ozone and silver perchlorate.
Conditions to avoid:	Elevated temperatures. Ignition sources. Contact with incompatible materials.
Incompatible material:	Acids, halogen, liquid oxygen, ozone, perchlorates, peroxides, strong oxidizing agents and sulphur.
Hazardous decomposition products:	There are no known hazardous decomposition products.

11 - TOXICOLOGICAL INFORMATION

Acute toxicity:	Product not classified as acute toxic. ATEmix Vapours (4h): > 20 mg/L. ATEmix Oral: > 5000 mg/kg. ATEmix Dermal: > 5000 mg/kg.
Skin corrosion/irritation:	Causes skin irritation with redness, pain and dryness.
Serious eye damage/irritation:	It is not expected to cause eye irritation.
Respiratory or skin sensitization:	It is not expected to present respiratory or skin sensitization.
Germ cell mutagenicity:	May cause genetic defects. Information regarding to: - Benzene: Micronucleus assays *in vivo*and *in vitro*in mouse cells obtained positive results for mutagenicity.
Carcinogenicity:	May cause cancer. Information regarding to: - Gasoline: Possibly carcinogenic to humans (group 2B - IARC). Confirmed animal carcinogen of unknown relevance to humans (Category A3 - ACGIH). - Benzene:

	Human carcinogen (Group 1 - IARC), Confirmed human carcinogen (Category A1 - ACGIH).
Reproductive toxicity:	Suspected of damaging fertility or the unborn child.
STOT - Single exposure:	May cause drowsiness or dizziness, may cause dizziness and nausea.
STOT - Repeated exposure:	It is not expected to exhibit specific target organ toxicity on repeated exposure.
Aspiration hazard:	May be fatal if swallowed and enters airways.

12 - ECOLOGICAL INFORMATION

Toxicity:	Toxic to aquatic life with long lasting effects. Information regarding to: - Gasoline: EC_{50} (*Daphnia magna*, 48 h): 4.5 mg/L; LC_{50} (*Pimephales promelas*, 96 h): 8.2 mg/L.
Persistence and degradability:	It is not expected to present persistence and degradability.
Bioaccumulative potential:	Presents high bioacumulative potencial in aquatic organisms. Information regarding to: - Gasoline: log K_{ow}: 2 to 7.
Mobility in soil:	Not determined.
Other adverse effects:	The release of large amounts of product can cause undesirable environmental effects, such as the reduction of oxygen availability in aquatic environments due to the formation of an oily layer on the surface, coating and consequent suffocation of animals.

13 - DISPOSAL CONSIDERATIONS

Disposal methods

Must be disposed of as hazardous waste in compliance with local regulations. The treatment and disposal should be evaluated for each specific product.
Keep the product remains in its original and properly closed containers. Disposal should be performed as established for the product.

14 - TRANSPORT INFORMATION

Road:	UN - United Nations: Model Regulations: • Recommendations on the Transport of Dangerous Goods.
UN number:	1203
Proper shipping name:	GASOLINE
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	II
Environmental hazards:	The product is considered dangerous for the environment for land transport.

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Railway regulations:	COTIF - Convention concerning International Carriage by Rail: • Appendix C: RID - Regulations concerning the International Carriage of Dangerous Goods by Rail.
UN number:	1203
Proper shipping name:	GASOLINE
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	II
Environmental hazards:	The product is considered dangerous for the environment in rail transport.
Sea:	IMO - International Maritime Organization: • IMDG Code - International Maritime Dangerous Goods Code.
UN number:	1203
Proper shipping name:	GASOLINE
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	II
Environmental hazards:	The product is considered a marine pollutant.
EmS:	F-E,S-E
Air:	IATA - International Air Transport Association: • DGR - Dangerous Goods Regulation.
UN number:	1203
Proper shipping name:	GASOLINE
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	II
Environmental hazards:	The product is considered dangerous for the environment for air transport.
Special precautions for user:	Not applicable.
Maritime transport in bulk according to IMO instruments:	Consult regulations: • International Maritime Organization: MARPOL: Articles, protocols, annexes, unified interpretations of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, consolidated edition. IMO, London, 2006; • International Maritime Organization: IBC code: International code for the construction and equipment of shipping carrying dangerous chemicals in bulk: With Standards and guidelines relevant to the code. IMO, London, 2007.

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15 - REGULATORY INFORMATION

Convention concerning Safety in the use of Chemicals at Work (Convention 170) - International Labour Organization, 1990.

16 - OTHER INFORMATION

This SDS was prepared based on current knowledge about the proper product handling and under normal conditions of use, in accordance with the application specified on the packaging. Any other use of the product involving their combination with other materials, and use various forms of those indicated, are the responsibility of the user. Warns that the handling of any chemical substance requires the prior knowledge of its hazards for the user. In the workplace it is for the user company's product promotes training of its collaborators about the possible risks arising from exposure to the chemical.

Change control:

Version	Manufacture date	Changes
01	03/22/2023	Elaboration

Abbreviations:
ACGIH - American Conference of Governmental Industrial Hygienists;
ATEmix - Acute Toxicity Estimate of the mixture;
BEI - Biological Exposure Index;
CAS - Chemical Abstracts Service;
EC_{50} - Effective concentration of substance that causes 50 % of the maximum response;
IARC - International Agency for Research on Cancer;
K_{ow} - Octanol-water partition coefficient;
LC_{50} - Lethal Concentration 50%;
NIOSH - National Institute for Occupational Safety and Health;
OSHA - Occupational Safety & Health Administration;
PEL - Permissible Exposure Limit;
REL - Recommended Exposure Limit;
STEL - Short Term Exposure Limit;
TLV - Threshold Limit Value;
TWA - Time Weighted Average;
UN - United Nations.

Bibliographic references:

ACGIH - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2023.

GHS - GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS. 10th rev. ed. New York and Geneva: United Nations, 2023.