Desde 1956
JIMO
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SDS

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

SAFETY DATA SHEET

Product: JIMO Descarbonizante Aerossol

Revision: 05	Date: 05/08/2025	Pages: 1/10

SECTION 1: IDENTIFICATION

GHS product identifier:	JIMO Descarbonizante Aerossol
Other means of identification:	91405
Recommended use of the chemical and restrictions on use:	Automotive.
Supplier's details:	Jimo Química Industrial Ltda. **Address**: Rua Ítalo Raffo 693 - Distrito Industrial, CEP: 94930-240 - RS - Brasil. **Phone number**: +55 51 3470 67 55 **E-mail**: jimo@jimo.com.br
Emergency phone number:	+55 51 3470 67 55 / 0800 051 41 46

SECTION 2: HAZARD IDENTIFICATION

Classification of the substance or mixture:	Aerosols - Category 1; Acute Toxicity - Oral - Category 4; Acute Toxicity - Dermal - Category 5; Skin Corrosion/Irritation - Category 2; Specific Target Organ Toxicity – Single Exposure - Category 3 - Narcotic; Specific Target Organ Toxicity – Repeated Exposure - Category 2; Hazardous to the Aquatic Environment - Acute 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):	H222 Extremely flammable aerosol. H229 Pressurized container: may burst if heated. H302 Harmful if swallowed. H313 May be harmful in contact with skin. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H373 May cause damage to the central nervous system through prolonged or repeated exposure. H401 Toxic to aquatic life.
Precautionary statement(s):	**PREVENTION:** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a with adequate ventilation.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, eye protection, face protection and hearing protection.

RESPONSE TO EMERGENCY:
P301 + P317 IF SWALLOWED: Get medical help.
P302 + P317 IF ON SKIN: Get medical help.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P319 Get medical help if you feel unwell.
P321 Specific treatment.
P330 Rinse mouth.
P332 + P317 If skin irritation occurs: Get medical help.
P362 + P364 Take off contaminated clothing and wash it before reuse.

STORAGE:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

DISPOSITION:
P501 Dispose of contents and container in accordance with local regulations.

Other hazards which do not result in classification:	The product has no other hazards.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE

Components contributing to the hazard:

Product identifier	CAS/EC	Concentration range (%)
Toluene	108-88-3	50 - 60
Liquefied Petroleum Gas (LPG)	68476-85-7	30 - 40
Methyl alcohol	67-56-1	10 - 20

SECTION 4: FIRST-AID MEASURES

Description of necessary first-aid measures

Inhalation:	Gases and vapors can cause dizziness or suffocation. Remove victim to fresh air and keep in a position that does not obstruct breathing. Monitor respiratory function. If the victim is breathing hard, give oxygen. If necessary, apply artificial respiration. Consult a doctor. Bring this document.
Skin:	In case of contact of the product in pressurized form with the skin, injury or frostbite may occur. Wash exposed skin with a sufficient amount of water. Clothing that adheres to the skin should be thawed with warm water before being removed. Consult a doctor. Bring this document.
Eye:	In case of contact with the eyes of the product in pressurized form, injury or frostbite may occur. Flush eyes with a sufficient amount of water, keeping eyelids open. If wearing contact lenses, remove them if it is easy. Keep rinsing. Consult a doctor. Bring this document.

Ingestion:	Wash the victim's mouth with plenty of water. Never give anything by mouth to an unconscious person. If you feel 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. Harmful if swallowed. May be harmful in contact with skin. May cause damage to the central nervous system through prolonged or repeated exposure. 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 product when helping the victim. If necessary, symptomatic treatment should include, above all, supportive measures such as correction of hydro electrolytic and metabolic disorders and respiratory assistance. In case of skin contact, do not rub the affected area.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media:	Suitable: carbon dioxide (CO_2), water mist and dry chemical powder. Unsuitable: 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 from matches and cigarettes, welding operations, pilot lamps and electric motors. Gases can be denser than air and can accumulate in low-lying or confined areas, such as storm drains and basements. They can travel long distances, causing flame regression or new fires in both open and confined environments. Containers may explode if heated.
Special protective actions for fire-fighters:	Do not extinguish a gas leak fire unless the leak can be contained. If cargo is involved in fire, isolate and evacuate the area within a minimum radius of 1600 meters. Use self-contained respiratory protection equipment (SCBA) with positive pressure and complete protective clothing. Containers and tanks involved in the fire must be cooled with water mist.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Isolate the leakage from sources of ignition. Keep unauthorized persons out of the area and away from windows. Stop the leakage if it can be done without risk. Prevent sparks or flames. Do not smoke. Do not touch damaged containers or spilled product without proper clothing. Avoid exposure to the product. Stay in a safe place, with the wind at your back. 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 product reaches waterways or sewage system.
Methods and materials for containment and cleaning up:	For the gas phase: Release contents slowly into the atmosphere. Stay downwind. Do not pour water into the spill or source of the leak. Due to the dispersion of the material in the environment, it is recommended that the area be ventilated until the area is cleared. All equipment used to contain the material must be grounded. Do not dispose of used or damaged containers directly into the environment or into the sewage system. For the liquid phase: Use water mist to reduce material dispersion. Use natural or spill containment barriers. Collect spilled material and place in appropriate containers. Adsorb the remaining material with dry sand, earth, vermiculite, or any other inert product. Place the adsorbed material in appropriate containers and remove them to a safe location. Use non-sparking tools to collect absorbed material. For final disposal, proceed as per Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe handling:	Handle in a well ventilated area or with general system of ventilation/local exhaust. Avoid gases and aerosols formation. Avoid exposure to the product, since the effects may not be felt immediately. 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 using the toilet. Contaminated clothing should be changed and washed before reuse. Remove contaminated clothing and protective equipment 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 flame, and hot surfaces. Do not smoke. Keep the container tightly closed. Ground the container vessel and product receiver during transfers. Only use non-sparking tools. Avoid the accumulation of electrostatic charges. Use explosion-proof electrical, ventilation, and lighting equipment.
Conditions for safe storage, including any incompatibilities:	Store in a dry, well-ventilated place away from sunlight. Keep the container closed. It is not necessary addition of stabilizers and antioxidants to ensure the durability. Keep away from incompatible materials.
Packaging compatibilities:	Similar to the original packaging.
Inadequate packaging materials:	There are not known unsuitable material.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limit:

The values below apply to workplaces.

- Toluene:
OSHA - PEL - TWA: 200 ppm (29 CFR 1910.1000 Table Z-2; 29 CFR 1926.55 Table 1; 29 CFR 1915.1000 Table Z-Shipyards) (CFR);
OSHA - PEL - Ceiling: 300 ppm; 500 ppm (Peak) (29 CFR 1910.1000 Table Z-2; 29 CFR 1926.55 Table 1; 29 CFR 1915.1000 Table Z-Shipyards) (CFR) (MS);
NIOSH - REL - TWA: 100 ppm (375 mg/m³);
NIOSH - REL - STEL: 150 ppm (560 mg/m³);
ACGIH - TLV - TWA: 20 ppm;
- Liquefied Petroleum Gas (LPG):
OSHA - PEL - TWA: 1000 ppm (1800 mg/m³) (29 CFR 1910.1000 Table Z-1) (CFR);
NIOSH - REL - TWA: 1000 ppm (1800 mg/m³);
ACGIH - TLV - TWA: (AF; D; EX);
- Methyl alcohol:
OSHA - PEL - TWA: 200 ppm (260 mg/m³) (29 CFR 1910.1000 Table Z-1) (CFR);
NIOSH - REL - TWA: 200 ppm (260 mg/m³);
NIOSH - REL - STEL: 250 ppm (325 mg/m³) (*);
ACGIH - TLV - TWA: 200 ppm (*);
ACGIH - TLV - STEL: 250 ppm (*).

CFR: See mentioned item in OSHA CFR;
MS: 10 Min maximum in an 8 hr shift;
D: Simple asphyxiant;

	EX: Explosion hazard: the substance is a flammable asphyxiant or excursions above the TLV® could approach 10% of the lower explosive limit; AF: See Appendix F: Minimal Oxygen Content. *: Also absorbed through the skin.
Biological limit:	- Toluene: ACGIH - BEI: Determinant: o-Cresol in urine. Sampling Time: End of shift. Index: 0.3 mg/g creatinine (H). Rating: B; Determinant: Toluene in blood. Sampling Time: Before the last shift of the work week. Index: 0.02 mg/L; Determinant: Toluene in urine. Sampling Time: End of shift. Index: 0.03 mg/L. - Methyl alcohol: ACGIH - BEI: Determinant: Methanol in urine. Sampling Time: End of shift. Index: 15 mg/L. Notation: B, Ns. 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; H: The analytical method requires hydrolysis; Ns: The determinant is nonspecific, since it is also observed after exposure to other chemicals.
Other limits and values:	No other limits and values are established.
Appropriate engineering controls:	A risk assessment is recommended to define the engineering control measures necessary to eliminate or minimize the risk. These measures help to reduce exposure to the product. 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:	Safety glasses.
Skin protection:	Closed shoes and suitable protective clothing. Appropriate protective gloves.
Respiratory protection:	A risk assessment should be performed for proper definition of respiratory protection, in view of the material use conditions.
Thermal hazards:	It does not present thermal hazards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid, compressed.
Colour:	Colorless.
Odour:	Characteristic.
Melting point/freezing point:	Not applicable.
Boiling point or initial boiling point and boiling range:	Not applicable.
Flammability:	Not available.
Lower and upper explosion limit/flammability limit:	Not applicable.
Flash point:	5 °C (41 °F) - Closed cup.

Auto-ignition temperature:	Not available.
Decomposition temperature:	Not applicable.
pH:	Not applicable.
Kinematic viscosity:	Not applicable.
Solubility:	Immiscible in water.
Partition coeficient n-octanol/water (log value):	Not available.
Vapour pressure:	Not applicable.
Density and/or relative density:	Relative density: 0.84 to 0.86.
Relative vapour density:	Not applicable.
Particle characteristics:	Not applicable.
Other information:	Not applicable.

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Reactivity is not to be expected under normal conditions of temperature and pressure.
Chemical stability:	Product stable under normal temperature and pressure conditions.
Possibility of hazardous reactions:	There are not known hazardous reactions with the material.
Conditions to avoid:	High temperatures. Ignition sources. Contact with incompatible materials.
Incompatible materials:	Chlorine, lead, magnesium, nickel, nitric acid, oxidizing agents, oxygen, silver perchlorate, strong inorganic acids, strong oxidizing agents, sulphuric acid, tetranitromethane, uranium hexafluoride and zinc.
Hazardous decomposition products:	No dangerous decomposition products are known.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:

Product not classified as acute toxic by inhalation.
Harmful if swallowed.
May be harmful in contact with skin.
ATEmix Oral: 549.706 mg/kg.
ATEmix Dermal: 3097.893 mg/kg.
ATEmix Vapours (4h): > 20 mg/L.
ATEmix Dusts and mists (4h): > 5 mg/L.

Information regarding to:
- Toluene:
LD_{50} Oral (rats): 2600 mg/kg
- Methyl alcohol:

	LD_{50} Oral (rats): 100 mg/kg. LD_{50} Dermal (rabbits): 500 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:	It is not expected to show mutagenicity in germ cells.
Carcinogenicity:	It is not expected to be carcinogenic.
Reproductive toxicity:	It is not expected to be reproductively toxic.
STOT - Single exposure:	May cause drowsiness or dizziness, may cause dizziness and nausea.
STOT - Repeated exposure:	May cause damage to the central nervous system through prolonged or repeated exposure.
Aspiration hazard:	It is not expected to present an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:	Toxic to aquatic life. Information regarding to: - Toluene: LC_{50} (*Pimephales promelas*, 96 h): 12.6 mg/L; EC_{50} (*Daphnia magna*, 48 h): 5.46 - 9.83 mg/L.
Persistence and degradability:	It has no persistence and is considered rapidly degradable. Information regarding to: - Toluene: Easily biodegradable. not persistent. BOD (% ThOD) 69% DTO (5 days in unadapted effluent).
Bioaccumulative potential:	Presents low bioacumulative potencial in aquatic organisms. Information regarding to: - Toluene: log K_{ow}: 2.11 to 2.8.
Mobility in soil:	Not determined.
Other adverse effects:	No other environmental effects known.

SECTION 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 product residues in their original packaging and properly closed. Disposal must be carried out as established for the product.

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Product: JIMO Descarbonizante Aerossol

SECTION 14: TRANSPORT INFORMATION

Road:	UN - United Nations: Model Regulations: • Recommendations on the Transport of Dangerous Goods.
UN number:	1950
UN proper shipping name:	AEROSOLS
Transport hazard class(es):	2.1
Packing group:	NA
Environmental hazards:	The product is not considered dangerous for the environment for land transport.
Railway regulations:	COTIF - Convention concerning International Carriage by Rail: • Appendix C: RID - Regulations concerning the International Carriage of Dangerous Goods by Rail.
UN number:	1950
UN proper shipping name:	AEROSOLS
Transport hazard class(es):	2.1
Packing group:	NA
Environmental hazards:	The product is not considered dangerous for the environment in rail transport.
Sea:	IMO - International Maritime Organization: • IMDG Code - International Maritime Dangerous Goods Code.
UN number:	1950
UN proper shipping name:	AEROSOLS
Transport hazard class(es):	2.1
Packing group:	NA
Environmental hazards:	It's not considered a marine pollutant for transportation.
EmS:	F-D,S-U
Air:	IATA - International Air Transport Association: • DGR - Dangerous Goods Regulation.
UN number:	1950
UN proper shipping name:	AEROSOLS
Transport hazard class(es):	2.1
Packing group:	NA
Environmental hazards:	The product is not considered dangerous for the environment for air transport.
Special precautions for user:	Not applicable.
Transport in bulk	Consult regulations:

according to IMO instruments:	• 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.

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

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

SECTION 16: OTHER INFORMATION

This document 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 products, 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
05	05/08/2025	Change in section: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16.

Abbreviations:
ACGIH - American Conference of Governmental Industrial Hygienists;
ATEmix - Acute Toxicity Estimate of the mixture;
BEI - Biological Exposure Index;
BOD - Biochemical Oxygen Demand;
CAS - Chemical Abstracts Service;
Ceiling - The concentration that should not be exceeded during any part of the working exposure;
EC - European Community;
EC_{50}- Effective concentration of substance that causes 50 % of the maximum response;
EEC - European Economic Community;
IARC - International Agency for Research on Cancer;
K_{ow}- Octanol-water partition coefficient;
LC_{50}- Lethal Concentration 50%;
LD_{50}- Lethal Dose 50%;
NIOSH - National Institute for Occupational Safety and Health;
OSHA - Occupational Safety & Health Administration;
PBT - Persistent, bioaccumulative and toxic;
PEL - Permissible Exposure Limit;
REL - Recommended Exposure Limit;
STEL - Short Term Exposure Limit;
ThOD - Theoretical Oxygen Demand;
TLV - Threshold Limit Value;
TWA - Time Weighted Average;
UN - United Nations;

vPvB - Very Persistent and very Bioaccumulative.

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, 2024.

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

REACH - REGISTRATION, EVALUATION, AUTHORIZATION AND RESTRICTION OF CHEMICALS. Commission Regulation (EC) No 1272/2008 of December 2008 amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals. Available in: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:353:0001:1355:en:PDF>. Access at: May. 2025.