

SAFETY DATA SHEET

Product: JIMO Repel

Revision: 04

Date: 05/27/2025

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SECTION 1: IDENTIFICATION

GHS product identifier: JIMO Repel

Recommended use of the chemical and restrictions on use: Insect repellent.

Supplier's details: Jimo Química Industrial Ltda.
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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: Acute Toxicity - Oral - Category 5;
Hazardous to the Aquatic Environment - Acute Hazard - Category 3.

Classification system adopted: Globally Harmonized System of Classification and Labeling of Chemicals (GHS), United Nations.

GHS label elements, including precautionary statements

Pictograms: Not applicable.

Signal word: WARNING

Hazard statement(s): H303 May be harmful if swallowed.
H402 Harmful to aquatic life.

Precautionary statement(s): **PREVENTION:**
P273 Avoid release to the environment.

RESPONSE TO EMERGENCY:
P301 + P317 IF SWALLOWED: Get medical help.

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 (%)
Cetearyl alcohol ¹	67762-27-0	1 - 10
Alcohols ethoxylated	68439-49-6	1 - 10
Ethylhexyl palmitate	29806-73-3	0.1 - 5

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

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Methylparaben ¹	99-76-3	0.1 - 5
Butylhydroxytoluene	128-37-0	0.01 - 1

¹ The ingredient does not contribute to the hazard, but is classified as a sensitizer.

SECTION 4: FIRST-AID MEASURES

Description of necessary first-aid measures

Inhalation:	Remove victim to fresh air and keep in a position that does not obstruct breathing. Inhalation effects may not be immediate. Monitor respiratory function. If breathing with difficulty the victim. If necessary, apply artificial respiration. Immediately contact the TOXICOLOGICAL INFORMATION CENTER or doctor. Bring this document.
Skin:	Immediately remove all contaminated clothing. Rinse skin with plenty of water or take a shower. Effects from skin contact may not be immediate. Immediately contact the TOXICOLOGICAL INFORMATION CENTER or doctor. Bring this document.
Eye:	Immediately flush eyes with sufficient amount of water, keeping eyelids open, for several minutes. If wearing contact lenses, remove them if it is easy and rinse again. 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. Oral effects may not be immediate. Immediately contact the TOXICOLOGICAL INFORMATION CENTER or doctor. Bring this document.
Most important symptoms/effects, acute and delayed:	May be harmful if swallowed.
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), foam, water mist and powder. Unsuitable: water jet directly.
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. Vapors can be denser than air and tend to accumulate in low-lying or confined areas such as storm drains and basements. Containers may explode if heated.
Special protective actions for fire-fighters:	Wear positive pressure self-contained breathing apparatus (SCBA) and full 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 away from the area. Stop the leakage if it can be done without risk. 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.
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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: Use water mist or vapor suppressing foam to reduce the dispersion of vapors. Use natural or spill containment barriers. Collect spilled products and place them in appropriate containers. Adsorb the remaining product with dry sand, earth, vermiculite, or any inert product. Place the adsorbed product in proper containers and remove it to a safe place. For final disposal, proceed according to 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 vapors and mists 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: It is not expected that the product presents a fire or explosion hazard.

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.

- Butylhydroxytoluene:
NIOSH - REL - TWA: 10 mg/m³;
ACGIH - TLV - TWA: 2 mg/m³ (IFV).

IFV: Inhalable fraction and vapor.

Biological limit: No biological indicators of exposure are established.

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

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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, viscous.

Colour: White.

Odour: Characteristic.

Melting point/freezing point: Not available.

Boiling point or initial boiling point and boiling range: 97.9 °C (208.22 °F) at 760 mmHg (101324.72 Pa).

Flammability: Not available.

Lower and upper explosion limit/flammability limit: Not available.

Flash point: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

pH: 5 to 6.

Kinematic viscosity: Not available.

Solubility: Miscible in water.

Partition coefficient n-octanol/water (log value): Not available.

Vapour pressure: Not available.

Density and/or relative density: Relative density: 1 to 1.02 at 20 °C (68 °F).

Relative vapour density: Not available.

Particle characteristics: Not applicable.

Other information: Not applicable.

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SECTION 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:	There are not known hazardous reactions with the material.
Conditions to avoid:	Elevated temperatures. Contact with incompatible materials.
Incompatible materials:	Hydrochloric acid, nitric acid, oxidizing agents, strong oxidizers, strong oxidizing agents and sulphuric acid.
Hazardous decomposition products:	There are no known hazardous decomposition products.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:	<p>Product not classified as acute toxic by dermal and inhalation. May be harmful if swallowed. ATEmix Vapours (4h): > 20 mg/L. ATEmix Dusts and mists (4h): > 5 mg/L. ATEmix Dermal: 162.14 mg/kg. ATEmix Oral: 3076.923 mg/kg.</p> <p>Information regarding to: - <u>Alcohols ethoxylated</u>: LD₅₀ Oral (rats): 2000 mg/kg - <u>Ethylhexyl palmitate</u>: LD₅₀ Oral (rats): >64 mg/kg.</p>
Skin corrosion/irritation:	It is not expected to cause skin irritation.
Serious eye damage/irritation:	It is not expected to cause eye irritation.
Respiratory or skin sensitization:	<p>It is not expected to present respiratory or skin sensitization.</p> <p>The ingredient Methylparaben, classified as skin sensitizer - category 1, is in concentration < 1% and does not contribute to this classification of the product.</p>
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:	It is not expected to exhibit specific target organ toxicity by single exposure.
STOT - Repeated exposure:	It is not expected to exhibit specific target organ toxicity on repeated exposure.
Aspiration hazard:	It is not expected to present an aspiration hazard.

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SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Harmful to aquatic life.

Information regarding to:

- Alcohols ethoxylated:

EC₅₀ (*Daphnia magna*, 48 h): > 100 mg/L;

ErC₅₀ (*Desmodesmus subspicatus*, 72 h): > 100 mg/L;

LC₅₀ (*Danio rerio*, 96 h): 1 - 10 mg/L.

- Butylhydroxytoluene:

EC₅₀ (*Daphnia sp.*, 48 h): 0.316 mg/L;

ErC₅₀ (Green algae, 72 h): 0.4 mg/L;

LC₅₀ (Fish, 96 h): 0.57 mg/L;

EC₅₀ (*Daphnia sp.*, 48 h): 0.61 mg/L.

Persistence and degradability: It is expected that the product presents persistence and it is not considered readily biodegradable.

Bioaccumulative potential: It is not expected to have a high bioaccumulative potential.

Mobility in soil: Not determined.

Other adverse effects: No other environmental effects known.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods

Must be disposed of as 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.

SECTION 14: TRANSPORT INFORMATION

Road: UN - United Nations: Model Regulations:
• Recommendations on the Transport of Dangerous Goods.

UN number: Not classified as hazardous for the road transportation.

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: Not classified as dangerous for rail transport.

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: Not classified as hazardous for water transportation.

Environmental hazards: It's not considered a marine pollutant for transportation.

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Air: IATA - International Air Transport Association:
• DGR - Dangerous Goods Regulation.

UN number: Not classified as dangerous for air transport.

Environmental hazards: The product is not considered dangerous for the environment for air transport.

Special precautions for user: Not applicable.

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.

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.
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
04	05/24/2024	Change in composition. 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;
CAS - Chemical Abstracts Service;
EC - European Community;
EC₅₀ - Effective concentration of substance that causes 50 % of the maximum response;
EEC - European Economic Community;
ErC₅₀ - Effective concentration that results in a 50% reduction in the growth rate;
LC₅₀ - Lethal Concentration 50%;
LD₅₀ - Lethal Dose 50%;
NIOSH - National Institute for Occupational Safety and Health;
PBT - Persistent, bioaccumulative and toxic;
REL - Recommended Exposure Limit;

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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. 2024.