

MATERIAL SAFETY DATA SHEET · MSDS (SDS)

Lavee Solar

Waterless cleaning product for photovoltaic panels. Document prepared in accordance with ABNT NBR 14725 (Brazilian standard based on the GHS).

MSDS 0775/01
Version 0005
Date 15 Jan 2026
SDS-ID Ecadil 0775

NO
PICTOGRAM

- **Not classified** — no safety symbol and no signal word.
- **Transport:** not classified as dangerous goods (ANTT and IMDG).
- **Protection:** gloves and safety glasses. In case of contact with skin or eyes, rinse with water.
- **Storage:** closed container, in a dry, ventilated place protected from light.

Summary taken from sections 3, 8 and 14 of this sheet. If in doubt, the text of the sections prevails.

1 Product and company identification

Product name	Lavee or Lavee Plus
Trade names	Lavee · Lavee Limpeza Seco · Dry Cleaning Lavee
Recommended use	Product for cleaning photovoltaic panels, without the use of water
Chemical name	Mixture of polycondensed esters (low molecular weight), quaternary ammonium compound and sequestering agents. 5th-generation quaternary ammonium compound
CAS No.	157905-74-3 · 68551-12-2 · 7732-18-5 · 178949-82-1
Molecular formula	(C8 – H17 – N5. HCl) n
Packaging	5 L · 20 L · 200 L · 1,000 L (IBC)

Supplier	BioForcis Soluções Tecnológicas Ltda. CNPJ (Brazilian company ID) 29.682.756/0001-40 Rua Iracy Rozatti Viel, 68, Lote 11 — Vinhedo, SP — Brazil — CEP 13287-011 contato@bioforcis.com.br · www.bioforcis.com.br
Manufacturer	Icaraí do Brasil Indústria Química Ltda. Rua Rondônia, 03 — Cosmópolis, SP — Brazil
Emergency telephone	+55 19 3872-3033 (24 hours) · 0800 013433 (toll-free in Brazil)
Poison Control Center	+55 19 3521-7555
Anvisa (Brazilian Health Regulatory Agency)	0800-722-6001 (toll-free in Brazil)
Toxicological information	+55 19 3251-7660

2 Composition and information on ingredients

CHEMICAL NAME	CAS NO.	RANGE (% W/W)
Amacitel fragrance	NA	0.001 ~ 0.05
Cyclic aliphatic quaternary ammonium	157905-74-3	0.05 ~ 1.00
Silane polyol polyether	68551-12-2	0.07 ~ 1.55
Demineralized water	7732-18-5	87.90 ~ 98.99
L-Aspartic acid, N,N'-1,2-ethanediylbis-, trisodium salt	178949-82-1	0.78 ~ 1.53

3 Hazard identification

GHS classification in accordance with ABNT NBR 14725.

Physical hazards	Non-corrosive — Category 5
Human health hazards	Acute toxicity — Category 5 Skin corrosion / irritation — Category 5 Eye irritation — Category 5

Environmental hazards	Non-corrosive. Aquatic environment — Category 5
Safety symbols and signal words	Not classified
Hazards to water treatment	Not identified
Precautionary statements	Wear gloves and safety glasses. In case of contact with skin and eyes: rinse with water. If inhaled: move the person to a ventilated area and keep at rest.
Storage	Use appropriate containers. Not flammable and not oxidizing.
Disposal	Follow the applicable environmental legislation.
Other hazards which do not result in classification	Not determined

4 First-aid measures

Inhalation	Move the victim to fresh air.
Skin contact	Wash the area with soap and water. If any symptoms occur, see a doctor.
Eye contact	Rinse the eyes with water as a precaution. Remove contact lenses. Protect the unaffected eye. If irritation persists, consult a specialist.
Ingestion	Do not induce vomiting unless instructed by a doctor. Give the victim two glasses of water. Never give anything by mouth to an unconscious person. If symptoms persist, consult a doctor.
Symptoms and effects, acute and delayed	Slightly corrosive to the skin.
Notes to physician	Symptomatic treatment.

5 Firefighting measures

Suitable extinguishing media	Adapt firefighting measures to local conditions and the surrounding environment. Use water, foam, carbon dioxide (CO ₂) or dry powder.
Hazardous combustion products	Not identified.
Protection of firefighters	Wear full protective equipment (accessories and clothing).

6 Accidental release measures

Personal precautions — non-emergency personnel	Avoid inhalation and contact with skin, mucous membranes and eyes; use the recommended personal protective equipment. Follow emergency procedures and consult a specialist.
Personal precautions — emergency responders	Wear personal protective equipment. Comply with all applicable local, regional and national regulations.
Environmental precautions	Prevent the product from entering the sewage system.
Methods for containment and cleaning up	Spilled material must be cleaned up by a qualified person. Contain the leak. Collect as much of the material as possible with the help of tools. Clean up the residue and collect the cleaning solution. Keep in suitable closed containers until disposal.

7 Handling and storage

Safe handling	For personal protection, see section 8. Avoid contact with the eyes. Avoid prolonged or repeated contact with the skin.
Safe storage	Keep the container tightly closed in a dry, well-ventilated place, protected from light.

8 Exposure controls and personal protection

Engineering control measures	Appropriate technical measures and work practices should take priority over the use of personal protective equipment.
Hand protection	Wear rubber gloves.
Eye protection	Avoid contact with the eyes.
Body and skin protection	Wear cotton clothing and safety boots with a leather toe cap.
Respiratory protection	Wear a protective mask.
Thermal protection	Not applicable.
Personal hygiene	Clothing, gloves, footwear and PPE must be cleaned before reuse. Use hot water, soap and cleansing creams. Wash hands before using the toilet, eating or drinking. Do not use gasoline, diesel or any other petroleum-derived solvent for personal hygiene.

9 Physical and chemical properties

Physical state, color and odor	Colorless to slightly yellowish, uniform liquid
pH	6.50 ~ 7.50 (10% at 25 °C)
Boiling point / range	100 °C
Melting point / range	-4 °C
Flash point	Not determined
Explosion limits (LEL / UEL)	Not determined
Auto-flammability	Not determined
Vapor pressure	18 mmHg
Solubility in water	Soluble

Relative density	1.00
Vapor density	Not applicable
Volatile organic compounds	Not determined
Percentage of volatiles	Not determined
Evaporation rate	Not determined
Viscosity	10 to 200 mPa·s / 20 °C

10 Stability and reactivity

Reactivity	Stable. Hazardous polymerization will not occur.
Chemical stability	Stable. Hazardous polymerization will not occur.
Possibility of hazardous reactions	No data available
Conditions to avoid	No data available
Incompatible materials or substances	No data available

11 Toxicological information

Acute toxicity	May be harmful if swallowed.
Local effects	Skin irritation may occur in some people.
Chronic toxicity	People susceptible to dermatitis may find their condition aggravated.

12 Ecological information

Ecotoxicity	Not toxic
Persistence and degradability	After neutralization, degradation is rapid: less than 72 h for 80%

Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available

As regulations vary, consult the applicable legislation or the authorities before disposing of waste.

13 Disposal considerations

Product as sold	Incinerate in an incinerator licensed for hazardous waste. Alternatively, dispose of the product residue at a site licensed for hazardous waste. Neutralize first.
Special instructions	As regulations vary, consult the applicable legislation or the authorities before disposing of waste.

14 Transport information

Land transport (ANTT — Resolution 5998/2022, Brazil)	Product not classified as dangerous for transport.
Sea transport (IMDG Code)	Product not classified as dangerous for transport.

About this document. English translation of the technical content of MSDS 0775/01, version 0005, of 15 Jan 2026, presented in the BioForcis graphic standard. No technical data have been changed; the company's CNPJ and typing errors in the original were corrected. In case of discrepancy, the Portuguese version prevails. The original sheet in PDF, as well as test reports and approval letters, is sent on request via WhatsApp +55 11 97351-1188.

The information in this sheet represents current data and reflects our best knowledge for the proper handling of this product under normal conditions and in accordance with the application specified on the packaging and in the literature. Any other use of the product, including use combined with another product or with other processes, is the user's responsibility.



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