

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

SAFETY DATA SHEET

Product: THINNER ECOEFICIENTE 5000

Revision: 05

Date: 08/02/2021

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1 - IDENTIFICATION

GHS Product identifier: THINNER ECOEFICIENTE 5000

Other means of identification: 023636-00

Recommended use of the chemical: Solvent for dilution and cleaning.

Restrictions on use: There are not known restrictions on use of the product.

Supplier's details: ANJO QUIMICA DO BRASIL LTDA

Address: Acesso Estadual Rio Maina, nº 1165, Bairro Vila Macarini CEP: 88818-800, Criciúma - SC - BR

Phone number(s): (48) 34618000 (48) 34618049

Emergency phone number: CIATox/SC (Centro de Informação e Assistência Toxicológica de Santa Catarina) 08006435252

2 - HAZARD IDENTIFICATION

Classification of the substance or mixture: Specific Target Organ Toxicity –Single Exposure - Category 3 - Narcotic and Category 3 - Respiratory
Flammable Liquids - Category 2
Skin Corrosion/Irritation - Category 2
Serious eye damage/eye irritation - Category 2A
Hazardous to the Aquatic Environment - Acute Hazard - Category 3
Hazardous to the Aquatic Environment - Chronic 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:



Signal word: DANGER

Hazard statement(s): H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s): **PREVENTION:**
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.

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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:

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 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.
P312 Call a POISON CENTER or a doctor, if you feel unwell.
P321 Specific treatment.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing. And wash it before reuse.
P370 + P378 In case of fire: Use carbon dioxide (CO₂), foam, water mist and powder. to extinguish.

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:

It is not expected that product presents specific hazards.

3 - COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE

Components contributing to the hazard:	Sec-butyl acetate (CAS 105-46-4): 10.55 - 31.65 %; Light naphtha (CAS 64741-66-8): 8.00 - 24.00 %; Methyl ethyl ketone (CAS 78-93-3): 7.12 - 21.37 %; 2-butanol (CAS 78-92-2): 2.59 - 7.77 %; Diacetone alcohol (CAS 123-42-2): 2.00 - 6.00 %; Acetone (CAS 67-64-1): 1.50 - 4.50 %; Ethyl acetate (CAS 141-78-6): 1.00 - 3.00 %.
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4 - FIRST-AID MEASURES

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Routes of exposure

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 SDS.
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 SDS.
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 SDS.
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 SDS.
Most important symptoms/effects, acute and delayed:	Causes skin irritation with redness, pain and dryness. Causes serious eye irritation with redness and pain. May cause drowsiness or dizziness, may cause dizziness and nausea. May cause respiratory irritation, may cause cough and sneezing.
Indication of immediate medical attention and special treatment needed, if necessary:	Avoid contact with the product 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 product.
Specific hazards arising from the chemical:	The combustion or the chemical containers may form toxic and irritant gases such as carbon monoxide and carbon 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 product. Stay in a safe place, with wind from behind. Use personal protective equipment as described in Section 8.
For emergency service personnel:	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

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Environmental precautions:	suitable respiratory protection mask. Avoid that the spilled material reaches waterways or sewage system.
Method 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 product 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.

7 - HANDLING AND STORAGE

Precautions for safe handling

Safe handling of the substance or mixture:	Handle in a well ventilated area or with general system of ventilation/local exhaust. Avoid vapors and mists formation. Avoid exposure to the chemical, since the effects may not be felt immediately.
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 product 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.
Adequate conditions:	Store in a well ventilated place, away from sunlight. Keep container closed. Keep away from high temperatures and ignition sources. Keep stored at room temperature not exceeding 35°C.
Packaging compatibilities:	Similar to the original packaging.
Inadequate packaging materials:	There are not known unsuitable material of the product.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limit:	The values below apply to workplaces. - <u>Acetone:</u> OSHA - PEL - TWA: 1000 ppm; 2400 mg/m ³ ; NIOSH - REL - TWA: 250 ppm; ACGIH - TLV - TWA: 250 ppm; ACGIH - TLV - STEL: 500 ppm. - <u>Diacetone alcohol:</u> OSHA - PEL - TWA: 50 ppm; 240 mg/m ³ ;
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NIOSH - REL - TWA: 50 ppm;
ACGIH - TLV - TWA: 50 ppm.
- 2-butanol:
OSHA - PEL - TWA: 150 ppm; 450 mg/m³;
NIOSH - REL - TWA: 100 ppm;
NIOSH - REL - STEL: 150 ppm;
ACGIH - TLV - TWA: 100 ppm.
- Methyl ethyl ketone:
OSHA - PEL - TWA: 200 ppm; 590 mg/m³;
NIOSH - REL - TWA: 200 ppm;
NIOSH - REL - STEL: 300 ppm;
ACGIH - TLV - TWA: 200 ppm;
ACGIH - TLV - STEL: 300 ppm.
- Sec-butyl acetate:
OSHA - PEL - TWA: 200 ppm; 950 mg/m³;
NIOSH - REL - TWA: 200 ppm;
ACGIH - TLV - TWA: 50 ppm;
ACGIH - TLV - STEL: 150 ppm.

Biological limit:

- Acetone:
ACGIH - BEI: Determinant: Acetone in urine. Sampling Time: End of shift. Index: 25.00 mg/L. Ns.
- Methyl ethyl ketone:
ACGIH - BEI: Determinant: Methyl ethyl ketone in urine. Sampling Time: End of shift. Index: 2.00 mg/L. Ns.

Ns: The determinant is nonspecific, since it is also observed after exposure to other chemicals;.

Other limits and values:

- Diacetone alcohol:
IDLH (NIOSH, 2010): 1800 ppm
- Ethyl acetate:
IDLH (NIOSH, 2010): 2000 ppm.

Appropriate engineering controls:

Provide mechanical ventilation and direct exhaust system to the outside environment. These measures help reduce the exposure to the product. Maintain atmospheric concentrations, of the constituents of the product, below the indicated occupational exposure limits. Maintain atmospheric concentrations of the constituents of the product 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 product use conditions.

Thermal hazards: Does not present thermal hazards.

9 - PHYSICAL AND CHEMICAL PROPERTIES

Aspect: Liquid.

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Color:	Not available.
Odour:	Not available.
Melting point/freezing point:	78 to 112 °C (172.4 to 233.6 °F).
Boiling point or initial boiling point and boiling range:	Not available.
Flammability:	Flammable.
Lower and upper explosion limit/flammability limit:	Upper: 3.3 % and Lower: 19%.
Flash point:	12 °C (53.6 °F) - Open cup.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
pH:	Not available.
Kinematic viscosity:	Not available.
Solubility:	Water immiscible.
Partition coefficient n-octanol/water (log value):	Not available.
Vapour pressure:	Not available.
Relative vapour density:	Not available.
Density and/or relative density:	Not available.
Particle characteristics:	Not applicable.
Other information:	Absolute density: 0.78 to 0.8 g/cm ³ .

10 - STABILITY AND REACTIVITY

Reactivity:	Reactivity is not to be expected under normal conditions of temperature and pressure
Stability:	Product is stable under normal conditions of temperature and pressure.
Possibility of hazardous reactions:	Ethanol: Can form explosive mixtures with air. Risk of explosion in contact with alkali metals, alkaline oxides and nitric acid. 2-butanol: The substance can form explosive peroxides. Reacts with aluminum and chromium trioxide forming flammable and explosive gases. Sec-butyl acetate: Reacts with strong oxidizing agents, strong acids and strong bases with risk of explosion. The product vapors may form explosive mixtures with air. Acetone: The product may ignite on contact with strong oxidizing

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agents, strong acids. Ethyl acetate: React dangerously with strong oxidizing agents and chlorosulfonic acid and can start a fire or explosion. Diacetone alcohol: In contact with strong oxidizers may ignite.

Conditions to avoid: Elevated temperatures. Sources of ignition. Contact with incompatible materials.

Incompatible material: 2,4-dinitrotoluene, Acids, Alkaline metals, Aluminum, Amines, Ammonia, Base, Halogen, Isocyanates, Nitrates, Organic peroxides, Oxidizing Agents, Pyridines, Radioactive materials, Spontaneous combustion of materials, Strong reducing agents and Sulphuric acid.

Hazardous decomposition products: There are not known hazardous decomposition products.

11 - TOXICOLOGICAL INFORMATION

Acute toxicity: Product not classified as acute toxic.
ATEmix (Oral): > 5000 mg/kg.
ATEmix (Dermic): > 5000 mg/kg.
ATEmix (Inhalation of gases, 4h): > 5000 µL/L (ppm).
ATEmix (Inhalation of vapors, 4h): > 20 mg/L.
ATEmix (Inhalation of dusts and mists, 4h): > 5 mg/L.

Skin corrosion/irritation: Causes skin irritation with redness, pain and dryness.

Serious eye damage/irritation: Causes serious eye irritation with redness and pain.

Respiratory or skin sensitization: It is not expected that the product presents respiratory or skin sensitization.

Germ cell mutagenicity: It is not expected that the product presents germ cell mutagenicity.

Carcinogenicity: It is not expected that the product presents carcinogenicity.

Reproductive toxicity: It is not expected that the product presents reproductive toxicity.

STOT - Single exposure: May cause drowsiness or dizziness, may cause dizziness and nausea. May cause respiratory irritation, may cause cough and sneezing.
Information regarding to :
- 2-butanol:
to central nervous system if inhaled.
- Acetone:
At high concentrations may cause hypotension, tachycardia, vasodilation, dizziness, incoordination, headache, confusion, stupor and coma.

STOT - Repeated exposure: It is not expected that the product presents specific target organ toxicity by repeated exposure.

Aspiration Hazard: It is not expected that the product presents aspiration hazard.

12 - ECOLOGICAL INFORMATION

Toxicity: Harmful to aquatic life with long lasting effects.
Information regarding to :
- Light naphtha:
EC₅₀ (*Daphnia magna*, 48h): 4.5 mg/L;

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LC₅₀ (*Amphiprion ocellaris*, 96h): 4.5 - 23 mg/L.

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

Bioaccumulative potential: Presents low bioaccumulative potential in aquatic organisms.

Mobility in soil: Not determined.

Other adverse effects: There are not known other environmental effects for this product.

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: 1263

Proper shipping name: PAINT RELATED MATERIAL

Primary risk class or division: 3

Subsidiary risk class or division: NA

Packing group: II

Railway regulations: COTIF - Convention concerning International Carriage by Rail:
• Appendix C: RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

UN Number: 1263

Sea: IMO - International Maritime Organization:
• IMDG Code - International Maritime Dangerous Goods Code.

UN Number: 1263

Proper shipping name: PAINT RELATED MATERIAL

Primary risk class or division: 3

Subsidiary risk class or division: NA

Packing group: II

EmS: F-E,S-E

Environmental: The product is not considered a marine pollutant for transportation.

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hazards:

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

UN Number: 1263

Proper shipping name: PAINT RELATED MATERIAL

Primary risk class or division: 3

Subsidiary risk class or division: NA

Packing group: II

Special precautions for user: Not applicable

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.

Elaborated August 2021.

Change Control:

Version	Elaboration	Changes
05	08/02/2021	Change in composition. Change in section: 1, 2, 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;
CAS - Chemical Abstracts Service;
EC₅₀ - Effective Concentration 50%;
IARC - International Agency for Research on Cancer;
IDLH - Immediately Dangerous to Life or Health;
LC₅₀ - Lethal Concentration 50%;
NIOSH - National Institute for Occupational Safety and Health;

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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:

GHS - GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS. 8th rev. ed.
New York: United Nations, 2019.

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, 2020.

ECHA - EUROPEAN CHEMICAL AGENCY. Available at: < <http://echa.europa.eu/web/guest> >. Access in: Aug. 2021.

GESTIS - SUBSTANCE DATABASE. Available at: < [http://gestis-en.itrust.de/nxt/gateway.dll/gestis_en/000000.xml?f=templates\\$fn=default.htm\\$3.0](http://gestis-en.itrust.de/nxt/gateway.dll/gestis_en/000000.xml?f=templates$fn=default.htm$3.0) >. Access in: Aug. 2021.

HSDB - HAZARDOUS SUBSTANCES DATA BANK. Available at: <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB>. Access in: Aug. 2021.

IARC - INTERNATIONAL AGENCY FOR RESEARCH ON CANCER. Available at:
<http://monographs.iarc.fr/ENG/Classification/index.php>. Access in: Aug. 2021.

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IUCLID - INTERNATIONAL UNIFORM CHEMICAL INFORMATION DATABASE. [S.1.]: European chemical Bureau.
Available at: <http://ecb.jrc.ec.europa.eu>.

NIOSH - NATIONAL INSTITUTE OF OCCUPATIONAL AND SAFETY. International Chemical Safety Cards.
Available at: <http://www.cdc.gov/niosh/>. Access in: Aug. 2021.

TOXNET - TOXICOLOGY DATA NETWORKING. ChemIDplus Lite. Available at: <http://chem.sis.nlm.nih.gov/>.
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