1- IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING	
Product identifier:	CITRUS TERPENE
SDS is also valid for products (synonyms):	ORANGE CITRUS TERPENE ORANGE CITRUS TERPENE OIL
Relevant identified uses of the substance or mixture and uses advised against:	This natural orange oil is used single or fractions in the composition of various products such as washing and cleaning products, solvents, degreasing agents, base for rubber and plastic chemicals, polishes and waxes, adhesives and sealants, coating products, filters, plasters, laboratory chemicals, paints, inks and toners, and others industrial applications. The product is **technical grade, not food grade** (without further treatment) and have colorless to moderate yellow color, recovered by distillation from the press liquor coming from peel, bagasse, and seeds after lime treatment. The product is made from sound and ripe oranges (Citrus Sinensis varieties). It is free from additives after extraction, genetically modified organisms, being produced and kept under the HACCP- Hazard Analysis and Critical Control Points, Best Manufacturing and Quality Practices. The product is FTNF-From The Named Fruit. Limonene as main natural compound of the product is 100% bio-based and is GRAS- Generally Recognized as Safe rated.
Company	CITROSUCO S/A AGROINDÚSTRIA CNPJ: 33010786/0001-87
Address : (Brazil, São Paulo)	Matão : 305 João Pessoa St, Matão-SP Zip code ZC: 15990-902 Catanduva : 206,5 Km Pedro Monteleone highway, ZC: 15804-500 Araras : 2000 Otto Barreto Ave, ZC: 13602-060 Santos : 68 Mario Covas Jr Ave, Bacia do Macuco ZC: 11020-300
Telephone numbers:	Matão Plant 55 16 3383 8500 Catanduva Plant 55 17 3531 6000 Araras Plant 55 19 3321 6000

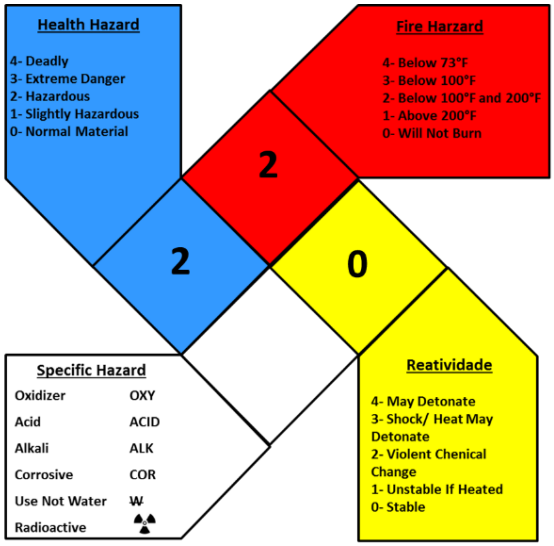
	Santos Terminal 55 13 3279 7900
Emergency Phone number **(Attendance only Brazil)**	**0800 770 0044** **UNYBRASIL** (Chemical and Environmental emergency 24 hours)
Technical Responsible, Phone number, Matão Plant	+55 16 3383 8555 – Technical contact: Oséia Pereira Filho Quality Control and Quality Assurance General Manager

AMBIPAR - INTERNATIONAL EMERGENCY RESPONSE		
In-country Dial Phone Numbers		
Country	**Local or National Number**	**Toll-Free Number**
Australia		1800 865 237
Belgium		0800 71 886
Brazil	+55 11 4349 6274	
China	(400-1) 400 120 1768	
Chile	+ 56 2 3210 0961	
Colombia		01 800 5190040
Czech Republic	+420 296 182 719	
El Salvador	+ 503 2136 1160	
Finland	+358 75 3252470	
Germany		0800 180 3968
Greece		800 848 1066
India		000 800 919 1522
Indonesia		0800 1503250
Italy	+39 024 091 8548	
Japan	0120-692-374	
Lithuania	+370 5 208 0633	

Malaysia		1 800 81 2207
Mexico		800 681 9387
Netherlands	+31 85 064 4048	
New Zealand	+64 9 886 0052	
Romania	+40 377 880 199	
South Africa		080 099 8390
South Korea		00308 491 0213
Spain		900 876 099
Sweden	+46 8 124 003 40	
Taiwan	+886 2 7737 4438	
Thailand		1800 014 752
United Kingdom	+44 330 027 2170	
United States		1 800 219 8391

2- HAZARDS IDENTIFICATION	
Classification of the substance or mixture:	Flammable Liquids – Category 3 Skin sensitization – Category 1 Skin irritation – Category 2 Aspiration hazard – Category 1 Hazardous to the aquatic environment – Short-term hazard – Category 2 Hazardous to the aquatic environment – Long-term hazard – Category 2
Classification system adopted:	Regulation (EC) Nº 1272/2008 of the European Parliament and of the Council of 16 December 2008. ABNT-NBR 14725 2023 Global Harmonized System classification and labeling of chemical product.
Label elements:	

Hazard pictograms:	
Signal word:	**DANGER**
Hazard Statement / Hazard Phrases:	**H226** Flammable liquid and vapour. **H304** May be fatal if swallowed and enters airways. **H315** Causes skin irritation. **H317** May cause an allergic skin reaction. **H411** Toxic to aquatic life with long lasting effects.
Precautionary Statement / Precautionary Phrases:	**P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. **P241** Use explosion-proof (electrical/ventilating/lightining/…) equipment. **P262** Do not get in eyes, on skin, or on clothing. **P280** Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/… **P273** Avoid release to the environment. **P301 + P310** IF SWALLOWED: Immediately call a POISON CENTER/doctor/… **P303 + P361 + P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower). **P370 + P378** In case of fire: Use carbon dioxide (CO_2), foam, water mist and chemical powder to extinguish. **P331** Do not induce vomiting. **P405** Store locked up. **P501** Dispose of contents/container in accordance with local/national/international regulations.

Hommel Diagram / Hazard Diagram	

3- COMPOSITION/INFORMATION ON INGREDIENTS	
SUBSTANCE	ORANGE SWEET, EXTRACT
PRODUCT IDENTIFIERS	EC LIST NUMBER/EINECS: 232-433-8 **CAS NUMBER: 8028-48-6** UN NUMBER: 2319 UN NAME: TERPENE HYDROCARBONS N.O.S. FEMA 2821 - ORANGE ESSENCE OIL SINENSIS (L. OSBECK). FDA: 21CFR182.20
PRODUCT COMPOSITION	CITRUS TERPENE = 100%
Botanical Specie	Citrus Sinensis (L.) Osbeck
Orange Variety	A blend of major Brazilian varieties. Hamlin, Pera Rio, Natal and Valência
Fruit Origin	Brazilian Citrus Belt, São Paulo and Minas Gerais States

Impurities and stabilizing additives contributing to the hazard:	There are no impurities or stability additives that contribute to the hazard.

4- FIRST AID MEASURES	
Description of first aid measures	
Inhalation:	Remove victim to fresh air and keep resting in a comfortable position for breathing. Contact a POISON CENTER or a doctor if you feel unwell. Take this SDS.
Skin contact:	Take off immediately all contaminated clothing. Rinse skin with water or shower. In case of irritation: Consult a doctor. Take this SDS.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do and rinse again. If eye irritation persists: Consult a doctor. Take this SDS.
Ingestion:	Do not induce vomiting. Rinse the victim's mouth with water. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or a doctor. Take this SDS.
Most important symptoms and effects, both acute and delayed:	May be fatal if swallowed and enters airways.
Indication of any immediate medical attention and special treatment needed:	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 contact with the product, do not rub the affected site.

5- FIREFIGHTING MEASURES	
Extinguishing media:	Appropriate: Compatible with foam, water mist, carbon dioxide (CO_2) and chemical powder. Not recommended: Water directly on the burning liquid.

Special hazards arising from the substance or mixture:	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, basements, etc. 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. The combustion of the chemical products or containers may form toxic and irritant gases such as carbon monoxide and carbon dioxide.
Advice for firefighters:	Use self-contained breathing apparatus (SCBA) operated in positive pressure mode and complete protective clothing that provides protection against heat. 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:	Remove all sources of ignition. Do not smoke. Avoid contact with the product. Do not touch damaged containers or spilled material without the use of appropriate clothing. Use personal protective equipment as described in Section 8.
For emergency responders:	Use full PPE with safety goggles or face shield, butyl rubber, neoprene or PVC safety gloves, suitable protective clothing (long pants and cloth shirts) and closed shoes. In case of leakage, where exposure is large, the use of respiratory protective mask with filter against organic vapors, if necessary, is recommended. Isolate from ignition sources. Evacuate the area within a radius of at least 50 meters. Keep unauthorized persons away from the area. Stop the leakage, if it can be done without risk.
Environmental precautions:	Avoid spillage reaches watercourses and sewerage systems.
Methods and material for containment and cleaning up:	Use water mist or vapor suppressing foam to reduce the dispersion of the vapors. Do not allow water ingress into the containers. Use natural

	barriers or containment of spillage. Collect spilled product and place in appropriate containers. Adsorb the remaining product with dry sand, earth, vermiculite or other inert material. Place the adsorbed material in appropriate containers and remove them to a safe place. For disposal, proceed according to Section 13 of this SDS.
Reference to other sections:	See Section 8 for information on personal protection equipment. See Section 13 for information on disposal.

7- HANDLING AND STORAGE	
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. Avoid contact with incompatible materials. Use personal protective equipment as indicated in Section 8. Wash hands and face thoroughly after handling it 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. 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.
Conditions for safe storage, including any incompatibilities:	Store in a well-ventilated place away from direct sunlight. Keep container closed. Keep stored at ambient or room temperatures. Keep away from high temperatures, sources of ignition and incompatible materials. Incompatible with strong oxidizing agents and mineral acids. <u>Recommended packaging materials:</u> Metal drums of 200 and 50 Liters with internal epoxy protective film. Drums can be stacked at a maximum of 4 high (floor base + 3) without using wooden support posts.The maximum can be 7 high (floor base +6), however it is necessary to put wooden support posts in the four corners

	of the pallets if stacking more than 4 high. For example, stacking 5 high, the first pallet from the base floor must be supported by wooden posts. Drums and packages must be kept at upright position during all handling process. It is extremely forbidden to tip, free fall and roll over the drums. During handle, storage, transportation, stuffing and destuffing process, drums or any other container must be kept at upright position with the lid facing up. Any handle at temperature above ideal storage values range shall not exceed 24 hours. When applicable, the thawing process shall not last more than 72 hours, and the product shall be used immediately afterwards. After first opening the product should be used as soon as possible due to oxidation.
Shelf life	24 months, provided the storage conditions have been respected

8- EXPOSURE CONTROLS/PERSONAL PROTECTION	
Control parameters:	
Occupational exposure limit:	See toxicological information section.
Biological limit:	See ecological information section.
Other limits and values	Not established.
Recommended monitoring procedures	Include product and/or volatile organic compounds analysis of air monitoring residues in process and handle areas.
Exposure controls:	
Engineering controls measures:	Promote direct mechanical ventilation and exhaust system to the outside environment. These measures help reduce exposure to product.
Individual protection measures, such as personal protective equipment:	
Eye/face protection:	Safety goggles and face shield.
Skin protection:	Butyl rubber, neoprene or PVC safety gloves, suitable protective clothing (long pants and cloth shirts) and closed shoes.

Respiratory protection:	Respiratory protective mask with filter against organic vapors, if necessary.
Thermal hazards:	It does not present thermal hazards.
Environmental exposure control:	The dilution water from the firefighting may cause pollution.

9- PHYSICAL AND CHEMICAL PROPERTIES **Based on the main coumpund d-Limonene.**	
Information on basic physical and chemical properties	
Appearance	Liquid, low viscosity, clear and no turbidity
Collor	Colorless to pale yellow
Sensory profile	Orange oil characteristic odor, typically citric, easily recognized as orange extract, sweet and pleasant fruit odour.
Specific Weight (d25/25ºC)	0.839 to 0.850
Odour threshold (based on the main compound d-Limonene) by GC-O Olfactometry	8500 / 13700 ug/L, trained/population panelists in orange juice deodorized matrix. 34 to 210 ug/L trained panel in ultrapure water
Melting point/Freezing point:	-74ºC
Boiling point	160 +/-10 ºC @ 102.6 kPa
Flash point (ASTM D93, Pensky-Martens, closed cup with agitation))	52.5 ºC
Evaporation rate:	No data available.
Auto Flammability/Self ignition	235 ºC @ 101.2 KPa
Upper/ lower flammability or explosive limits	Upper: 6.1% at 262°C Lower: 0.7% at 150°C
Vapour pressure	1.4 mmHg at 20ºC ; 1.864 hPa @ 25ºC

Vapour density	0.012 at 20ºC (air = 1)
Solubility(ies)	Slight soluble in water: 62.8 mg/L at 25ºC Completely soluble in ethanol 95 to 100% at 25ºC
Partition coefficient: n-octanol/water	2.78 – 4.88 Log Pow
Decomposition temperature	Not available.
Viscosity	Dynamic: 0.99 mPa.s at 20°C Kinematic: 1.17 mm²/s at 20°C
Explosiveness properties	Not available.
Oxidizing properties	Not available.
Dissociation constant	Not available
Other information:	Not applicable.

10- STABILITY AND REACTIVITY	
Reactivity:	It is not expected that the product shows reactivity potential.
Chemical stability:	Product is stable under normal conditions of temperature and pressure.
Possibility of hazardous reactions:	Vapours of the substance can form an explosive mixture in contact with air.
Conditions to avoid:	High temperatures. Ignition sources and contact with incompatible materials.
Incompatible materials:	Strong oxidizing agents and mineral acids.
Hazardous decomposition products:	The thermal decomposition may release carbon monoxide and carbon dioxide.

11- TOXICOLOGICAL INFORMATION
Information on toxicological effects (based on main compound d-Limonene)

Acute toxicity	ORAL LD_{50} (rat) : > 5000 mg/kg DERMAL LD_{50} (rabbit): > 5000 mg/kg
Workers inhalation exposure (long-term), DNEL	31.1 mg/m3
Workers inhalation exposure (acute/short-term), DNEL	Not available
General population inhalation exposure (long-term), DNEL	7.78 mg/m3
General population inhalation exposure (acute/short term), DNEL	Not available
Skin sensitization/irritation	Causes skin sensitization and irritation with redness and dryness. Skin – Rabbit, result: Irritating to skin. (OECD Test Guideline 404).
Workers dermal exposure (long-term), DNEL sensitization skin	8.89 mg/Kg bw/day
Workers dermal exposure (acute/short-term), DNEL sensitization skin	185.8 ug/cm3
General population dermal exposure (long-term), DNEL sensitization skin	4.44 mg/Kg bw/day
General population dermal exposure (acute/short-term), DNEL sensitization skin	92.9 ug/cm3
Repeated dose toxicity	NOAEL (rat): 150-2400 mg/Kg bw/day NOAEL (mouse): 500 mg/Kg bw/day NOAEL (dog): 100 mg/Kg bw/day LOAEL (rat): 1200 mg/Kg bw/day LOAEL (mouse): 1000 mg/Kg bw/day

Oral exposure (long-term), DNEL	4.44 mg/Kg bw/day
Eye damage/irritation	Not available, but it is expected that the product causes eye irritation.
Genetic toxicity (in vitro)	No adverse effect observed (negative)
Genetic toxicity (in vivo)	Not available
Germ cell mutagenicity	Not available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	Not available
Specific target organ toxicity – single exposure	It is not expected that the product present specific target organ toxicity by single exposure.
Specific target organ toxicity – repeated exposure	Not available
Aspiration hazard	May be fatal if swallowed and enters airways.
Interactive effects	There are not known substances capable of producing interactive effects with the product.
Other information	Not applicable.

12- ECOLOGICAL INFORMATION	
Environmental effects, behavior and fate of the product (based on main compound d-Limonene)	
Toxicity to freshwater fish and invertebrate (short-term)	Toxic to aquatic life with expected long-lasting effects. EC_{50} (*Daphnia magna*, 48h): 1.1 mg/L

	EC_{50}/ LC_{50} (*Danio rerio*, 96 h): 5.65 mg/L
Toxicity to freshwater fish and invertebrate (long-term)	Not available
Toxicity to aquatic algae and cianobacteria	EC_{50} for freshwater algae: 4.3 mg/L
Toxicity to aquatic microorganisms	Not available
Toxicity to soil and terrestrial microorganisms	Not available
Toxicity to terrestrial arthropods	Not available
Toxicity to terrestrial plants	Not available
Toxicity to birds	Not available
Hazard for aquatic organisms	Freshwater: 5.4 ug/L Intermittent releases (freshwater): 5.77 ug/L Marine water: 540 ng/L Sewage treatment plant: 2.1 mg/L Sediment (freshwater): 1.3 mg/Kg Sediment (marine water): 130 ug/Kg
Hazard to air	Not available
Hazard for terrestrial organism	Soil: 261 ug/Kg
Hazard for predators (secondary poisoning)	No potential to cause toxic effects if accumulated (in higher organisms) via the food chain.
Persistence and degradability	The product does not have persistence and it is considered readily biodegradable (100%). Degradation rate: 83.4% in 28 days

Bioaccumulative potential	Presents high bioaccumulative potential in aquatic organisms. Log kow: 2.78 – 4.88
Mobility in soil	Not determined.
Other adverse effects	There are no known adverse environmental effects for this product.

13- DISPOSAL CONSIDERATIONS	
Waste treatment 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. Disposal should be performed as established for the product. Do not reuse empty containers. These may contain product residues and should be kept closed and sent for proper disposal as established for the product.
Product	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Used packaging	Do not reuse empty containers. These may contain product residues and should be kept closed and sent for proper disposal as established for the product by local legislation.

14- TRANSPORT INFORMATION	
International regulations	
Land:	UN – "United Nations" European Agreement concerning the International Carriage of Dangerous Goods by Road – ADR
UN number:	2319
UN proper shipping name:	TERPENE HYDROCARBONS, N.O.S.

Transport hazard class(es):	3
Subsidiary risk:	NA
Packing group:	III
Special precautions	Storage and transportation in drums or bulk at ambient / room temperature.
Sea:	IMO – International Maritime Organization International Maritime Dangerous Goods Code (IMDG Code)
UN number:	2319
UN proper shipping name:	TERPENE HYDROCARBONS, N.O.S.
Transport hazard class(es):	3
Subsidiary risk:	NA
Packing group:	III
Marine pollutant:	Y
EmS:	F-E, S-D
Special precautions	Storage and transportation in drums or bulk at ambient / room temperature.
Air:	IATA – International Air Transport Association Dangerous Goods Regulation (DGR)
UN number:	2319
UN proper shipping name:	TERPENE HYDROCARBONS, N.O.S.
Transport hazard class(es):	3
Subsidiary risk:	NA
Packing group:	III
Environmental hazards:	The product is considered a marine pollutant.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	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.
Special precautions:	Storage and transportation in drums or bulk at ambient / room temperature.

15- REGULATORY INFORMATION	
Safety, health and environmental regulations/legislation specific for the substance or mixture:	Convention concerning Safety in the use of Chemicals at Work (Convention 170) – International Labour Organization, 1990 Regulation 689/2008 (exportation and importation of hazardous products) Directive 76/768/EEC European Parliament and the Council: Regulation (EC) No 1272/2008
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, section 302.
SARA 313 Components	This material does not contain any chemical component with known CAS numbers that exceed the hazard threshold.
SARA 311/312	Fire Hazard, Acute Health Hazard GHS Classification in accordance with 29 CFR 1910 (OSHA HCS). **EPA (USA): DTXSID1047730** RTECS: RI86000000 – To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

National Inventories: (Citrus Terpene Listed as d-Limonene, main compound)	
Australia AICS – Australian Inventory of Chemical Substances	Listed
Canada DSL – Domestic Substances List	Listed
China IECSC – Inventory of Existing Chemical Substances Produced or Imported	Listed
Europe ECSI – European Community Substance Inventory (EINECS/ELINC/ELP)	Listed
Europe EU-REACH – Registration, Evaluation, Authorization and Restriction of Chemicals	Listed
Indonesia BPOM-Regulation of the Head of the Food and Drug Supervisory	Listed
Japan CSCL-ENCS – Chemical Substance Control Law - Existing and New Chemical Substances	Listed
Korea KECI – Korea Existing Chemicals Inventory	Listed
Mexico INSQ – National Inventory of Chemical Substances	Listed
New Zealand NZIoC – New Zealand Inventory of Chemicals	Listed
Phlilippines PICCS – Philippine Inventory of Chemicals and Chemicals Substances	Listed
Taiwan TCSI – Taiwan Chemical Substance Inventory	Listed
Türkiye CICR – Chemical Inventory and Control Regulation	Listed
United States TSCA – Toxic Substance Control Act	Listed
Vietnam NCI - National Chemical Inventory	Listed

16- OTHER INFORMATION

This SDS was prepared based on best practices 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.

The information contained herein is based on current knowledge and experience, no responsibility is accepted that the information is enough or correct in all cases. Users should consider these data only as

a supplement to other information obtained by the user. No warranty is expressed or implied regarding the accuracy of experimental data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. Users should make independent determination of suitability and completeness of the information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment. This information is furnished upon the condition the person receiving it shall determine the suitability for the particular purpose. This SDS is to be used as a guideline for safe work practices and emergency response. Caution: The user should conduct his own experiments and establish proper procedures and controls before attempting use on critical parts.

SDS Historical Document Information:

Rev.	Date	Information
0	October 20, 2025	SDS first version (1-2 T).

Abbreviations and acronyms:

ABNT	Technical Standards Brazilian Association.
REACH	Registration, Evaluation, Authorization, and restriction of Chemicals of EU.
CAS	Chemical Abstracts Service, CAS Registry number
UN	United Nations
ECHA	European Chemical Agency
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances.
USDA	United States Department of Agriculture.
IMO	International Maritime Organization
IMDG	International Maritime code of Dangerous Goods.
IATA	International Air Transportation Association.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
AOAC	Association of Official Analytical Collaboration International.

OSHA	Occupational Safety and Health Administration USA.
NIOSH	National Institute for Occupational Safety and Heath, USA.
NFPA	National Fire Protection Association USA.
EC_{50}	Effective Concentration 50%
EC_{10}	Effective Concentration 10%
LC_{50}	Lethal Concentration 50%
LD_{50}	Lethal Dose 50%
NA	Not applicable.
PVC	Polyvinyl Chloride.
SCBA	Self-Contained Breathing Apparatus
HACCP	Hazard Analysis and Critical Control Points.
PNEC	Predicted No Effect Concentration: the concentration value of a substance with adverse effects in the environment are not expected to occur.
DNEL or DN(M)EL	Derived No or Minimum Effect Level: is the level of exposure which a human should not be exposed to a substance.
Kg.b.w	Kilogram body weight
NOAEL	No Observed Adverse Effect Level, term used in toxicology.
LOAEL	Lowest Observable Adverse Effect Level, term used in toxicology.
SARA	US-EPA Superfund Amendments and Reauthorization Act
IARC	WHO International Agency for Research on Cancer
NTP	US Department of health and human services – National Toxicology Program
EPA	US Environmental Protection Agency
WHO	UN United Nations - World Health Organization

Bibliographic references:

ECHA EUROPEAN CHEMICAL AGENCY, http://echa.europa.eu

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://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:353:0001:1355:en:PDF>.

Access at: Oct. 2024

USDA FDA United States Department of Agriculture, Food and Drugs Administration

ABNT Brazilian Association of technical Standards, NBR 14725 (1-2-3-4) Chemical Products Informations about Safety, Health and Environment. Guidelines for MSDS (FISPQ).

AIJN European Fruit Juice Association, Code of Practices, European Community Reference Standards

Citrus Science and Technology; Book of Nagy S., Shaw P.E., Veldhuis M.K., The AVI Publishing Company, INC, 1977.

Quality Control Manual for Citrus Processing Plants, James.B. Redd., Charles M. Hendrix Jr and Donald L. Hendrix, INTERCIT INC, Florida USA, 1986.

RSK Values, The complete manual – Guide values and ranges of specific numbers, including the revised method of analysis, VdF – Association of the German Fruit Juice Industry, Bonn. 1987.

AOAC Association of Official Analytical Collaboration International, www.aoac.org

IMO International Maritime Organization, Sub-commitee of dangerous goods, solid cargos and containers, October 26, 2009. Ammendments to the IMSBC Code, including evaluation of properties of solid bulk cargoes, DSC-14.

OSHA OCCUPATIONAL SAFETY AND HEATH ADMINISTRATION, USA, www.osha.gov.

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

ECB EUROPEAN CHEMICALS BUREAU. Diretiva 67/548/EEC (substâncias); Diretiva 1999/45/EC http://ecb.jrc.it

EPA USA Environmental Protection Agency, Washington http://www.epa.gov

HSDB HAZARDOUS SUBSTANCES DATA BANK. http://toxnet.nlm.nih.gov

IARC INTERNATIONAL AGENCY FOR RESEARCH ON CANCER.http://monographs.iarc.fr

IPCS INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY – INCHEM http://www.inchem.org

IUCLID INTERNATIONAL UNIFORM CHEMICAL INFORMATION DATABASE European chemical Bureau. http://ecb.jrc.ec.europa.eu

NIOSH NATIONAL INSTITUTE OF OCCUPATIONAL AND SAFETY. International Chemical Safety Cards. http://www.cdc.gov/niosh

NITE-GHS JAPAN – NATIONAL INSTITUTE OF TECHNOLOGY AND EVALUATION. http://www.safe.nite.go.jp

SIRETOX/INTERTOX – SISTEMA DE INFORMAÇÕES SOBRE RISCOS DE EXPOSIÇÃO QUÍMICA. http://www.intertox.com.br

TOXNET – TOXICOLOGY DATA NETWORKING.http://chem.sis.nlm.nih.gov

Technical paper: Odour and flavor threshold for key aroma components in an orange juice matrix: Terpenes and aldehydes; Anne Ploto and others, Flavor and Fragrance Journal, 2004, 19: 491-498.