

**TECHNICAL DATA SHEET**Effective date: 04.2019
Rev.1**Grapefruit Seed Extract****INFORMATION ON SUBSTANCE / MIXTURE**

INCI	Citrus grandis seed extract, Glycerin
Botanical name	Citrus x paradisi
Manufacturing process	Grapefruit Seed Extract is formulated from both the seeds and the pulp of grapefruits (Citrus x paradisi). The process of extraction yields an active botanically-derived product consisting of flavonoids, such as naringen, ascorbic acid, tocopherols and citric acid which is then blended with USP vegetable glycerin and additional ascorbic acid.
Description	Powerful broad spectrum citrus based anti-microbial that can be used to extend product shelf life and protect personal skin care formulations against bacteria and fungus. GSE possesses strong antiseptic, germicidal, antibacterial, fungicidal and anti-viral properties and also acts as an antioxidant.
Composition	60% grapefruit seed extract and 40% USP vegetable glycerin
Compatibility	GSE is compatible with the following ingredients: <ul style="list-style-type: none">• Nonionic agents• Citric acid• Ascorbic acid• Acetic acid• Sodium acetate• Potassium hydroxide• Borax• Sodium sulfate• Sodium carbonate• Isopropanol alcohol GSE is not compatible with the following ingredients: <ul style="list-style-type: none">• Anionic wetting agents
Properties	<ul style="list-style-type: none">• Antimicrobial• Antioxidant• Germicidal• Antiseptic• Antibacterial (protects against gram-positive and gram-negative bacteria including Escherichia coli and Staphylococcus aureus)• Fungicidal (protects against Pseudomonas aeruginosa, Aspergillus flavus and Aspergillus niger)• Antiviral• Biodegradable• Non-corrosive• Considered environmentally safe• Non-toxic and Non-irritating (when used at dilutions of up to 2%)

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Appearance	Viscous liquid
Color	Lemon yellow to golden brown
Odor	Mild citrus
Specific Gravity (d25°)	1.10 - 1.30
Refractive index at 20°C	NA
Optical rotation at 20°C	NA
pH at 25°C	1.50 - 3.00
Flash point	132 - 149°C
Solubility	Soluble in water, glycol alcohol and organic solvents

Active Ingredients

Grapefruit Seed Extract	42.00 - 46.00%
Vitamin C (Ascorbic Acid)	14.0 - 18.0% (source of Vitamin C is from the extract)

Inert Ingredients

Glycerine USP	37.0 - 40.0%
Dextrose	0.00% w/w
Moisture	≤ 3.0%

TRANSPORT, STORAGE and SHELF LIFE

Storage conditions	Store in cool, dry and ventilated area, away from heat sources, sparks and open flames, protected from light in tightly closed original container
Shelf Life	36 months under good storage conditions
Custom tariff	-

LEGISLATION

Certification	-
EINECS	289-904-6

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CAS	90045-43-5
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COUNTRY OF ORIGIN OF RAW MATERIAL:	USA
COUNTRY OF PRODUCTION:	USA
COMPOSITIONAL BREAKDOWN (%):	See Notes
RAW MATERIAL SOURCE:	<input checked="" type="checkbox"/> PLANT PART: Seeds, Rind, Rag <input type="checkbox"/> ANIMAL <input type="checkbox"/> MINERAL <input type="checkbox"/> BIOTECHNOLOGY <input type="checkbox"/> GMO <input type="checkbox"/> OTHER: _____
GRADE:	<input type="checkbox"/> FOOD/GRAS <input type="checkbox"/> NF <input checked="" type="checkbox"/> COSMETIC <input type="checkbox"/> HALAL <input checked="" type="checkbox"/> KOSHER <input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> VEGAN <input checked="" type="checkbox"/> VEGETARIAN <input type="checkbox"/> USP
APPLICATIONS:	<input checked="" type="checkbox"/> Personal Care / Cosmetics
STORAGE:	Store in a tightly closed original container in a cool, dry and ventilated area. Keep away from heat and light.
ORGANIC STANDARDS:	<input checked="" type="checkbox"/> NOT APPLICABLE (CONVENTIONAL) <input type="checkbox"/> USDA-NOP <input type="checkbox"/> NOP/COR (CANADA ORGANIC REGIME) <input type="checkbox"/> EU EQUIVALENCE TO EC No 889/2008 – EC No 834/2007 <input type="checkbox"/> US/KOREA EQUIVALENCE <input type="checkbox"/> SWISS EQUIVALENCE
CHEMICAL INVENTORIES:	US TSCA INVENTORY: <input checked="" type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN EU EINECS/ELINCS/NLP: <input checked="" type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN CHINA INVENTORY OF EXISTING CHEMICAL SUBSTANCES (IECSC): <input checked="" type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN JAPAN EXISTING AND NEW CHEMICAL SUBSTANCES INVENTORY (ENCs): <input checked="" type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN KOREAN EXISTING CHEMICALS LIST (KECL): <input checked="" type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN

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	TAIWAN CHEMICAL SUBSTANCE INVENTORY (TCSI): <input type="checkbox"/> LISTED OR EXEMPT <input checked="" type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS): <input checked="" type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN CANADA DOMESTIC SUBSTANCES LIST (DSL) AND NON-DOMESTIC SUBSTANCES LIST (NDSL): <input checked="" type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN NEW ZEALAND INVENTORY OF CHEMICALS (NZIOC): <input checked="" type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN PHILIPPINES INVENTORY OF CHEMICALS AND CHEMICAL SUBSTANCES (PICCS): <input checked="" type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input type="checkbox"/> NOT KNOWN THAILAND NATIONAL EXISTING CHEMICAL INVENTORY (NECI): <input type="checkbox"/> LISTED OR EXEMPT <input type="checkbox"/> NOT LISTED <input checked="" type="checkbox"/> NOT KNOWN
REACH REGISTERED:	<input type="checkbox"/> EXEMPT
CA PROP 65:	<input checked="" type="checkbox"/> This material does not appear on CA Prop 65 <input type="checkbox"/> This material contains chemicals listed on the CA Prop 65 List (Components/concentrations attached)
SUSTAINABLY SOURCED:	<input checked="" type="checkbox"/> YES, TO THE BEST OF OUR KNOWLEDGE, THIS MATERIAL HAS BEEN SUSTAINABLY SOURCED. <input type="checkbox"/> THIS MATERIAL IS CURRENTLY BEING EVALUATED FOR SUSTAINABILITY. <input type="checkbox"/> CERTIFIED SUSTAINABLE
CITES:	<input checked="" type="checkbox"/> TO THE BEST OF OUR KNOWLEDGE, THIS PRODUCT IS NOT MANUFACTURED USING PLANTS WHICH ARE PROTECTED BY THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES). <input type="checkbox"/> NOT KNOWN <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO REASON FOR EXEMPTION
NATURALNESS:	<input type="checkbox"/> THIS MATERIAL IS 100% NATURAL AND MEETS THE CRITERIA OF NATURALNESS AS DEFINED IN SECTION 101.22 (a) (3) OF TITLE 21 OF THE UNITED STATES CODE OF FEDERAL REGULATIONS. IT DOES NOT CONTAIN ARTIFICIAL FLAVORS. IT IS NOT ADULTERATED OR MISBRANDED ACCORDING TO FOOD AND DRUG LAWS. <input checked="" type="checkbox"/> THIS MATERIAL IS PRODUCED ACCORDING TO THE INTERPRETATION OF THE TERM "NATURAL" AS OUTLINED IN IFRA INFORMATION LETTER 737 (2005) AND THE ISO CODE

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	OF PRACTICE SECTION 3.1 AND 3.2 OF THE 1997 DIRECTIVE IN INTERNATIONAL STANDARD 9235. NO ANTIOXIDANTS, PRESERVATIVES, GENETICALLY MODIFIED PRODUCTS OR SYNTHETIC SOLVENTS HAVE BEEN INTRODUCED AT ANY PART IN THE PRODUCTION OF THIS MATERIAL.
TESTED ON ANIMALS:	<input checked="" type="checkbox"/> NO, NOT TESTED ON ANIMALS <input type="checkbox"/> YES, ANIMAL TESTED
GLUTEN FREE:	<input type="checkbox"/> YES, WE CONFIRM THIS PRODUCT IS GLUTEN FREE <input type="checkbox"/> THIS PRODUCT CONTAINS GLUTEN <input checked="" type="checkbox"/> NOT APPLICABLE
PORK/PORCINE-FREE:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE
BSE/TSE FREE:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NOT APPLICABLE (NO ANIMAL PRODUCTS ARE USED OR PRESENT ON PREMISES)
SULFATE FREE:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE
GMO-FREE:	<input checked="" type="checkbox"/> YES, WE CONFIRM THIS PRODUCT IS GMO-FREE <input type="checkbox"/> NO (Provide statement on GMO components) <input type="checkbox"/> NOT APPLICABLE
PALM FREE:	<input type="checkbox"/> YES, WE CONFIRM THIS PRODUCT IS PALM-FREE <input type="checkbox"/> NO, CONTAINS PALM OR PALM DERIVATIVES <input checked="" type="checkbox"/> CONTAINS RSPO PALM/DERIVATIVES <input type="checkbox"/> NOT APPLICABLE
BHA/BHT FREE:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE
PARABEN FREE:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/> CONTAINS PARABENS REPORTED ON SPEC
FREE OF ADDITIVES:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> CONTAINS ADDITIVES REPORTED ON SPEC
FREE OF RESIDUAL SOLVENTS:	<input type="checkbox"/> YES (SOLVENT IS REMOVED) <input type="checkbox"/> NO; % REMAINS (reported on spec) <input type="checkbox"/> NOT TESTED <input checked="" type="checkbox"/> NOT APPLICABLE (NOT SOLVENT EXTRACTED)
GROWN USING BIOSOLID/SEWER SLUDGE:	<input type="checkbox"/> YES

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	<input checked="" type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE
NANO-PARTICLE FREE:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NOT APPLICABLE
ETHOXYLATION USED IN PRODUCTION:	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NOT APPLICABLE
SULPHONATION USED IN PRODUCTION:	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NOT APPLICABLE
ETHYLENE OXIDE TREATMENT:	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NOT APPLICABLE
HYDROGENATION:	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NOT APPLICABLE
IRRADIATED:	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO, NOT IRRADIATED
ALKANOAMINES:	<input type="checkbox"/> YES: _____% <input checked="" type="checkbox"/> NOT APPLICABLE <input type="checkbox"/> NO <input type="checkbox"/> NOT TESTED
PESTICIDES:	<input type="checkbox"/> YES (Provide report and frequency of testing) <input type="checkbox"/> DOES NOT CONTAIN (Provide report and frequency of testing) <input checked="" type="checkbox"/> NOT TESTED <input type="checkbox"/> NOT APPLICABLE
PHTHALATES:	<input type="checkbox"/> YES: _____% <input type="checkbox"/> DOES NOT CONTAIN (Provide report) <input type="checkbox"/> NOT TESTED <input checked="" type="checkbox"/> NOT APPLICABLE
PETROCHEMICALS:	<input type="checkbox"/> YES: _____% <input type="checkbox"/> DOES NOT CONTAIN <input type="checkbox"/> NOT TESTED <input checked="" type="checkbox"/> NOT APPLICABLE
PRESERVATIVES:	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> YES (REPORTED ON SPECIFICATION SHEET)
FORMALDEHYDE Specify if material contains any trace amount or is a donor	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> NOT TESTED <input type="checkbox"/> CONTAINS <input type="checkbox"/> PRODUCTION SOURCE:

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VOLATILE ORGANIC COMPOUNDS:	<input type="checkbox"/> YES _____ % <input type="checkbox"/> NO (Provide report) <input type="checkbox"/> NOT TESTED <input checked="" type="checkbox"/> NOT APPLICABLE
HEAVY METALS:	<input checked="" type="checkbox"/> NONE (Provide report and frequency of testing) <input type="checkbox"/> LEAD: <input type="checkbox"/> CADMIUM: <input type="checkbox"/> ARSENIC: <input type="checkbox"/> MERCURY: <input type="checkbox"/> OTHER: <input type="checkbox"/> NOT TESTED
IMPURITIES:	<input type="checkbox"/> YES (REPORTED ON SPECIFICATION SHEET) <input checked="" type="checkbox"/> DOES NOT CONTAIN
EU 26 ALLERGENS	<input type="checkbox"/> PRESENT (Provide report) <input type="checkbox"/> NONE (Provide report) <input checked="" type="checkbox"/> NOT TESTED
ALLERGENS PRESENT: Major Food Allergens as found under the Food Allergen Labeling and Consumer Protection Act of 2004	<input type="checkbox"/> CEREALS (RYE, BARLEY, OATS, WHEAT) <input type="checkbox"/> CRUSTACEAN SHELLFISH <input type="checkbox"/> EGGS <input type="checkbox"/> FISH <input type="checkbox"/> PEANUTS <input type="checkbox"/> SOYBEANS <input type="checkbox"/> MILK (INCLUDING LACTOSE) <input type="checkbox"/> TREE NUTS (EXCLUDING COCONUT) <input type="checkbox"/> CELERY <input type="checkbox"/> MUSTARD <input type="checkbox"/> SESAME <input type="checkbox"/> SULPHUR DIOXIDE/SULFITES <input type="checkbox"/> LUPINE <input type="checkbox"/> MOLLUSKS <input type="checkbox"/> CORN <input checked="" type="checkbox"/> NONE
OTHER SUBSTANCES:	<input type="checkbox"/> MSG <input type="checkbox"/> MEAT <input type="checkbox"/> 3-MCPD <input type="checkbox"/> HYDROLYZED ANIMAL PRODUCTS <input type="checkbox"/> HYDROLYZED PLANT PROTEIN <input type="checkbox"/> FD & C COLORS <input type="checkbox"/> CHOCOLATE

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SUBSTANCES OF VERY HIGH CONCERN: CMR, PBT OR OTHER	<input type="checkbox"/> YES (Provide statement on SVHC substances) <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NOT KNOWN
HEALTH HAZARDS:	See Notes
ENVIRONMENTAL HAZARDS:	Not Known
TOXICOLOGY:	<input type="checkbox"/> NOT ADEQUATELY TESTED FOR TOXICITY <input checked="" type="checkbox"/> NON-TOXIC <input type="checkbox"/> ACUTE ORAL TOXICITY <input type="checkbox"/> ACUTE DERMAL TOXICITY <input type="checkbox"/> ACUTE INHALATION TOXICITY <input type="checkbox"/> DERMAL IRRITATION <input type="checkbox"/> DERMAL SENSITIZATION <input type="checkbox"/> OCULAR IRRITATION <input type="checkbox"/> CORROSIVITY <input type="checkbox"/> COMEDOGENICITY <input type="checkbox"/> PHOTO-TOXICITY <input type="checkbox"/> PHOTO-SENSITIZATION

DISCLAIMER

All warranty claims in respect to the conformity of our product are subject to our General Terms and Conditions of Sale and Delivery. The data listed above reflects the results of the manufacturer or our supplier quality tests. We do not hereby make any express or implied warranty, whether for specific properties or for fitness for any particular application or purpose. All values are valid for the product when dispatched from the works. We recommend you perform your own quality and or identification checks on receipt.