SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US - OSHA Hazard Communication Standard (29 CFR 1910.1200)

Issuing Date 30-Mar-2023 **Revision Date** 31-Mar-2023 **Revision Number** 1.01

1. Identification

Product identifier

Product Name Orange Ginger

Other means of identification

UN/ID no UN3082

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Air freshener

Restrictions on use No information available

Details of the supplier of the safety data sheet

Manufacturer Address
Rexair LLC
2600 West Big Beaver Rd
Suite 555
Troy, MI 48084 USA
248-643-7222

E-mail webmaster@rexairllc.com

Emergency telephone number

Emergency telephone 1-800-255-3924 (ChemTel)

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1

Hazards not otherwise classified (HNOC)
Not applicable.

Label elements

Warning

Hazard statements
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/clothing and eye/face protection.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Contaminated work clothing should not be allowed out of the workplace.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
Take off contaminated clothing and wash before reuse.
If skin irritation or rash occurs: Get medical advice/attention.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

Other information
Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

Unknown acute toxicity

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Trade secret
Hexylene glycol	107-41-5	10-20	*
Limonene	5989-27-5	1-5	*
2-tert-Butylcyclohexyl acetate	88-41-5	0-4	*
Benzyl alcohol	100-51-6	0-2	*
alpha-Methylcinnamaldehyde	101-39-3	0-2	*
Dipropylene glycol monomethyl ether	34590-94-8	1-5	*
Vanillin	121-33-5	0-1	*
p-Methoxybenzaldehyde	123-11-5	0-1	*
Piperonal	120-57-0	0-1	*
Phenethyl alcohol	60-12-8	0-1	*
Ethyl vanillin	121-32-4	0-1	*
Ethyl butyrate	105-54-4	0-1	*
Ethyl 2-methyl-1,3-dioxolane-2-acetate	6413-10-1	0-1	*
Benzyl benzoate	120-51-4	0-1	*
2-Methyl-3-(p-isopropylphenyl)propionaldehyde	103-95-7	0-1	*
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclo	1222-05-5	0-1	*

penta-gamma-2-benzopyran			
Pinene	80-56-8	0.1-0.5	*
beta Pinene	127-91-3	0.1-0.5	*
Orange oil, sweet terpenes	68647-72-3	0-0.1	*
Coumarin	91-64-5	0-0.1	*
Citral	5392-40-5	0.1-0.5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. Wash off immediately with soap and plenty of water for at least 15 minutes.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation.

Effects of Exposure No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing media High volume water jet.

Specific hazards arising from the chemical Product is or contains a sensitizer. May cause sensitization by skin contact.

Hazardous combustion products Carbon oxides.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Hexylene glycol 107-41-5	STEL: 50 ppm vapor fraction STEL: 10 mg/m³ inhalable particulate matter, aerosol only TWA: 25 ppm vapor fraction	(vacated) Ceiling: 25 ppm (vacated) Ceiling: 125 mg/m³	Ceiling: 25 ppm Ceiling: 125 mg/m³
Dipropylene glycol monomethyl ether 34590-94-8	TWA: 50 ppm	TWA: 100 ppm TWA: 600 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m³ (vacated) S*	IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m³ STEL: 150 ppm STEL: 900 mg/m³

		S*	
Pinene 80-56-8	dermal sensitizer TWA: 20 ppm	-	-
beta Pinene 127-91-3	dermal sensitizer TWA: 20 ppm	-	-
Citral 5392-40-5	dermal sensitizer TWA: 5 ppm inhalable fraction and vapor S*	-	-

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance Clear liquid
Physical state Liquid
Color Colorless
Odor Fragrance
Odor threshold No data available

Property	Values	Remarks • Method
pH		No data available
pH (as aqueous solution)		No data available
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flash point	124 °C / 255.2 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Vapor pressure		No data available
Vapor density		No data available
Relative density		No data available
Water solubility		No data available
Solubility(ies)		No data available

Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC content	0%
VOC	0%
Liquid Density	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity None under normal use conditions.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid None known based on information supplied.

Incompatible materials Acids, Bases, Metals, Oxidizing or reducing agents, Metal salts, Isocyanates.

Hazardous decomposition products Carbon oxides, Aldehydes, Cresol vapors, Oxides of yttrium, Organic acids and their derivatives.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. May cause sensitization by skin contact. Causes skin irritation. (based on components). Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Acute toxicity .

Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document:

Unknown acute toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hexylene glycol 107-41-5	= 3700 mg/kg (Rat)	= 12300 mg/kg (Rabbit)	-
Limonene 5989-27-5	= 5200 mg/kg (Rat) = 4400 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
2-tert-Butylcyclohexyl acetate 88-41-5	= 4600 mg/kg (Rat)	-	-
Benzyl alcohol 100-51-6	= 1230 mg/kg (Rat)	= 2 g/kg (Rabbit)	> 4178 mg/m^3 (Rat) 4 h
alpha-Methylcinnamaldehyde 101-39-3	= 2050 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
Dipropylene glycol monomethyl ether 34590-94-8	= 5.35 g/kg (Rat)	= 9500 mg/kg (Rabbit)	-
Vanillin 121-33-5	= 1580 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	-
p-Methoxybenzaldehyde 123-11-5	> 2000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 0.32 mg/L (Rat) 7 h
Piperonal 120-57-0	= 2700 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Phenethyl alcohol 60-12-8	= 1609 mg/kg (Rat)	= 2535 mg/kg (Rabbit)	> 4.63 mg/L (Rat) 4 h
Ethyl vanillin 121-32-4	= 1590 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Ethyl butyrate 105-54-4	= 13 g/kg (Rat)	> 2000 mg/kg (Rat)	-
Ethyl 2-methyl-1,3-dioxolane-2-acetate 6413-10-1	> 5 g/kg (Rat)	-	-
Benzyl benzoate 120-51-4	= 500 mg/kg (Rat)	= 4000 mg/kg (Rabbit)	-
2-Methyl-3-(p-isopropylphenyl)propionaldehyde 103-95-7	= 3810 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran 1222-05-5	> 3250 mg/kg (Rat)	> 3250 mg/kg (Rabbit)	-
Pinene 80-56-8	= 3700 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
beta Pinene 127-91-3	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Coumarin 91-64-5	> 5000 mg/kg (Rat)	= 293 mg/kg (Rat)	-
Citral	= 4960 mg/kg (Rat)	= 2250 mg/kg (Rabbit)	-

5392-40-5			

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization Classification based on data available for ingredients. May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Limonene 5989-27-5	-	Group 3	-	X
Coumarin 91-64-5	-	Group 3	-	-

Legend

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target organ effects Respiratory system. Eyes. Skin. Central nervous system.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

Ecotoxicity Toxic to aquatic life. Harmful to aquatic life with long lasting effects. (applicable for Orange Ginger fragrance only).

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hexylene glycol 107-41-5	-	LC50: 10500 - 11000mg/L (96h, Pimephales promelas) LC50: =10000mg/L (96h, Lepomis macrochirus) LC50: =8690mg/L (96h, Pimephales promelas) LC50: =10700mg/L (96h, Pimephales promelas)	-	EC50: 2700 - 3700mg/L (48h, Daphnia magna)

Limonene 5989-27-5	-	LC50: 0.619 - 0.796mg/L (96h, Pimephales promelas) LC50: =35mg/L (96h, Oncorhynchus mykiss)	-	-
Benzyl alcohol 100-51-6	-	LC50: =460mg/L (96h, Pimephales promelas) LC50: =10mg/L (96h, Lepomis macrochirus)	-	EC50: =23mg/L (48h, water flea)
Dipropylene glycol monomethyl ether 34590-94-8	-	LC50: >10000mg/L (96h, Pimephales promelas)	-	LC50: =1919mg/L (48h, Daphnia magna)
Vanillin 121-33-5	-	LC50: 53 - 61.3mg/L (96h, Pimephales promelas) LC50: =88mg/L (96h, Pimephales promelas) LC50: =57mg/L (96h, Pimephales promelas)	-	-
Piperonal 120-57-0	-	LC50: =2.5mg/L (96h, Cyprinus carpio)	-	-
Phenethyl alcohol 60-12-8	EC50: =490mg/L (72h, Desmodesmus subspicatus)	-	-	EC50: =287.17mg/L (48h, Daphnia magna)
Ethyl vanillin 121-32-4	-	LC50: 81.4 - 94.3mg/L (96h, Pimephales promelas)	-	-
Ethyl 2-methyl-1,3-dioxolane-2-acetate 6413-10-1	-	LC50: >100mg/L (96h, Oncorhynchus mykiss)	-	-
Benzyl benzoate 120-51-4	-	LC50: =2.32mg/L (96h, Danio rerio)	-	-
Pinene 80-56-8	-	LC50: =0.28mg/L (96h, Pimephales promelas)	-	LC50: =41mg/L (48h, Daphnia magna)
Citral 5392-40-5	EC50: =16mg/L (72h, Desmodesmus subspicatus) EC50: =19mg/L (96h, Desmodesmus subspicatus)	-	-	EC50: =7mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Hexylene glycol 107-41-5	0.14
Limonene 5989-27-5	4.38
Benzyl alcohol 100-51-6	1.05
Dipropylene glycol monomethyl ether 34590-94-8	0.35

Vanillin 121-33-5	1.23
p-Methoxybenzaldehyde 123-11-5	1.56
Piperonal 120-57-0	1.2
Phenethyl alcohol 60-12-8	1.36
Ethyl vanillin 121-32-4	1.61
Ethyl butyrate 105-54-4	2.433
Ethyl 2-methyl-1,3-dioxolane-2-acetate 6413-10-1	0.8
Benzyl benzoate 120-51-4	3.97
2-Methyl-3-(p-isopropylphenyl)propionaldehyde 103-95-7	3.4
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma -2-benzopyran 1222-05-5	5.3
Pinene 80-56-8	4.1
Citral 5392-40-5	2.76

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

Note: The below information is applicable only to the Orange Ginger Fragrance. All other fragrances ship as 'Not Regulated'.

DOT

UN/ID no UN3082
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es) 9
Packing group III
Special Provisions 8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Marine Pollutant I
Marine pollutant Limonene, beta Pinene
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Limonene, beta Pinene), 9, III, Marine pollutant
Emergency Response Guide 171

Number

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
IATA Technical Name	Limonene, beta Pinene
Special Provisions	A97, A158, A197
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Limonene, beta Pinene), 9, III
ERG Code	9L

IMDG Not regulated

UN number or ID number	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es)	9
Packing group	III
EmS-No	F-A, S-F
Marine pollutant	P
Marine pollutant	Limonene, beta Pinene
Special Provisions	274, 335, 969
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Limonene, beta Pinene), 9, III, Marine pollutant

15. Regulatory information

International Inventories

Contact supplier for inventory compliance status

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Dipropylene glycol monomethyl ether - 34590-94-8	1.0
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma -2-benzopyran - 1222-05-5	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Dipropylene glycol 25265-71-8	-	-	X
Hexylene glycol 107-41-5	X	X	X
Benzyl alcohol 100-51-6	-	X	X
Dipropylene glycol monomethyl ether 34590-94-8	X	X	X
Ethyl butyrate 105-54-4	X	X	X
Pinene 80-56-8	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	**Health hazards** 2	**Flammability** 1	**Instability** 0	**Special hazards** -
HMIS	**Health hazards** 2 *	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

Chronic Hazard Star Legend ** = Chronic Health Hazard*

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)

National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet