SAFETY DATA SHEET

1. Product and Company Identification

PRODUCT NUMBER: 389411

PRODUCT NAME: FRESH SHIELD MAX LINEN

PRODUCT DESCRIPTION: Urinal Screen

COMPANY INFORMATION: **PRO CHEM, INC.**
1475 Bluegrass Lakes Parkway
Alpharetta, GA 30004

COMPANY PHONE: 1-800-241-8180

EMERGENCY TELEPHONE: 1-800-535-5053

INFOTRAC: 1-800-535-5053

2. Hazards Identification

GHS CLASSIFICATION:
Eye Damage 1 H318: Causes serious eye damage.
Skin Irritant 2 H315: Causes skin irritation.
Skin Sensitization 1 H317: May cause an allergic skin reaction.
The product is classified and labeled according to the Globally Harmonized System (GHS).

SIGNAL WORD:
DANGER

SYMBOL:

·HAZARD-DETERMINING COMPONENTS OF LABELING:
Benzenesulfonic acid, C10-13-alkyl derivatives, sodium salts
4-tert-butylcyclohexyl acetate
Citrus limon (L.) Burm. F.
dl-Citronellol
Citral
p-t-Butyl-alpha-methylhydrocinnamic aldehyde
citrus limon l. burm. f. peel oil c.p.
Linalool
5-(2,2,3-trimethyl-3-cyclopentenyl)-3-methylpentan-2-ol

HAZARD STATEMENTS:
Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction.

PRECAUTIONARY STATEMENTS:
Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/eye protection/face protection.
Response: IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (See on this label). Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition / Information on Ingredients

Description: Mixture of the substances listed below with nonhazardous additions.

Chemical Name	CAS	Concentration % by Weight
Sodium Carbonate	497-19-8	10-50%
Benzenesulfonic acid, C10-13-alkyl derivatives, sodium salts	68411-30-3	≥3-<10%
4-tert-butylcyclohexyl acetate	32210-23-4	≥2.5-<10%
benzyl acetate	140-11-4	≥0.1-≤2.5%
Alpha-Pinene	80-56-8	≥0.1-≤2.5%
Beta-Pinene	127-91-3	≥0.1-≤2.5%
Citrus limon (L.) Burm. F.	68917-33-9	≥0.1-<1%
dl-Citronellol	106-22-9	≥0.1-<1%
Citral	5392-40-5	≥1-≤2.5%
p-t-Butyl-alpha-methylhydrocinnamic aldehyde	80-54-6	≥0.1-<1%
Citrus Limon l. burm. f. peel oil	8008-56-8	≥0.1-<1%
Linalool	78-70-6	≥0.1-<1%
5-(2,2,3-trimethyl-3-cyclopentenyl)-3-methylpentan-2-ol	65113-99-7	≥0.1-<1%

4. First Aid Measures

EMERGENCY OVERVIEW:
GENERAL: Immediately remove any clothing soiled by the product.
EYES: Rinse opened eye for several minutes under running water. Then consult a doctor.
SKIN: Immediately wash with water and soap and rinse thoroughly.
INHALATION:
Supply fresh air and to be sure call for a doctor. In case of unconsciousness, place patient stably in side position for transportation.
INGESTION:
If symptoms persist, consult doctor.
MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED:
No further relevant information available.
INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:
No further relevant information available.

5. Fire-Fighting Measures

SUITABLE FIRE EXTINGUISHING MEDIA:

Use fire fighting measures that suit the environment.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

No further relevant information available.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:

No special measures required.

6. Accidental Release Measures

PERSONAL PRECAUTIONS:

Wear protective equipment. Keep unprotected persons away.

ENVIRONMENTAL PRECAUTIONS:

Do not allow to enter sewers/ surface or ground water.

METHODS & MATERIALS FOR CONTAINMENT & CLEANUP:

Use neutralizing agent. Dispose contaminated material as waste according to Section 13 of SDS. Ensure adequate ventilation.

REFERENCE TO OTHER SECTIONS:

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

PROTECTIVE ACTION CRITERIA FOR CHEMICALS:

Chemical Name	CAS	Value
PAC-1:		
Ethyl vinyl acetate copolymer	24937-78-8	30 mg/m³
Sodium Carbonate	497-19-8	7.6 mg/m³
Benzyl Acetate	140-11-4	30 ppm
Ethyl Benzoate	93-89-0	6.3 mg/m³
Benzyl Benzoate	120-51-4	5.7 mg/m³
p-Methoxybenzaldehyde	123-11-5	21 mg/m³
Ethyl Acetoacetate	141-97-9	12 mg/m³
Methyl Salicylate	119-36-8	2.3 ppm
PAC-2:		
Ethyl Vinyl Acetate Copolymer	24937-78-8	330 mg/m³
Sodium Carbonate	497-19-8	83 mg/m³
Benzyl Acetate	140-11-4	330 ppm
Ethyl Benzoate	93-89-0	69 mg/m³
Benzyl Benzoate	120-51-4	63 mg/m³
p-Methoxybenzaldehyde	123-11-5	230 mg/m³
Ethyl Acetoacetate	141-97-9	130 mg/m³
Methyl Salicylate	119-36-8	25 ppm
PAC-3:		
Ethyl Vinyl Acetate Copolymer	24937-78-8	2,000 mg/m³
Sodium Carbonate	497-19-8	500 mg/m³
Benzyl Acetate	140-11-4	2,000 ppm
Ethyl Benzoate	93-89-0	420 mg/m³
Benzyl Benzoate	120-51-4	380 mg/m³
p-Methoxybenzaldehyde	123-11-5	300 mg/m³
Ethyl Acetoacetate	141-97-9	790 mg/m³
Methyl Salicylate	119-36-8	150 ppm

7. Handling and Storage

SAFE HANDLING:

Thorough dedusting. Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: No special measures required.

SAFE STORAGE & INCOMPATIBILITIES:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s): No further relevant information available.

8. Exposure Controls / Personal Protection

Additional information about design of technical systems: No further data; see Section 7 of the SDS.
Components with limit values that require monitoring at the workplace: The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
140-11-4 benzyl acetate	TLV	Long-term value: 61 mg/m³, 10 ppm
80-56-8 alpha-Pinene	TLV	Long-term value: 112 mg/m³, 20 ppm DSEN
127-91-3 beta-Pinene	TLV	Long-term value: 112 mg/m³, 20 ppm DSEN
5392-40-5 Citral	TLV	Long-term value: 32* mg/m³, 5* ppm Skin; DSEN; *inhalable fraction + vapor

PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face Protection: Tightly sealed goggles.
Skin Protection: Protective gloves. The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to missing tests no recommendation to the glove material can be given for the product/the preparation/the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
Material of Gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.
Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Respiratory Protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.
General Hygiene Considerations: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the skin. Avoid contact with the eyes and skin.
Additional information: The lists that were valid during the creation were used as basis.

9. Physical & Chemical Properties

Form:	Solid.	**Flammability(solid/gas):**	Not determined.
Color:	Light blue.	**Organic Solvents:**	1.4%
Odor:	Characteristic.	**Solids Content:**	100.0%
Odor Threshold:	Not determined.	**VOC Content:**	0.73% Exempt Fragrance and no other VOCs.
pH:	Not applicable.	**Explosive Limit-Lower (%):**	Not determined.
Melting Point/Range:	Undetermined.	**Explosive Limit-Upper (%):**	Not determined.
Boiling Point/Range:	>100°C (>212°F)	**Vapor Density:**	Not applicable.
Viscosity Dynamic:	Not applicable.	**Vapor Pressure:**	Not applicable.
Viscosity Kinematic:	Not applicable.	**Relative Density:**	Not determined.
Flash Point:	>100°C (>212°F)	**Auto-Ignition Temp:**	Product is not self-igniting.
Density at 20°C (68°F):	>1 g/cm³ (>8.345 lbs/gal)	**Partition Coeff(n-octanol/water):**	Not determined.
Evaporation Rate:	Not applicable.	**Danger of Explosion:**	Product does not present an explosion hazard.
Decomposition Temp:	Not determined.	**Other Information:**	No further relevant information available.
Solubility (water):	Insoluble.		

10. Stability & Reactivity Information

REACTIVITY:
No further relevant information available.
CHEMICAL STABILITY:
No decomposition if used according to specifications.
POSSIBILITY OF HAZARDOUS REACTIONS:
No dangerous reactions known.
CONDITIONS TO AVOID:
No further relevant information available.
INCOMPATIBLE MATERIALS:
No further relevant information available.
HAZARDOUS DECOMPOSITION PRODUCTS:
No dangerous decomposition products known.

11. Toxicological Information

PRIMARY ROUTE OF ENTRY:
Eyes: Strong irritant with the danger of severe eye injury.
Skin: Irritant to skin and mucous membranes.
ACUTE TOXICITY:
LD/LC50 values that are relevant for classification:

Components	Species	Test Results
497-19-8 Sodium Carbonate		
Acute		
Oral		
LD50	Rat	4,090 mg/kg

32210-23-4 4-tert-butylcyclohexyl Acetate

Acute		
Oral		
LD50	Rat	5,000 mg/kg

140-11-4 Benzyl Acetate

Acute		
Dermal		
LD50	Rabbit	>5,000 mg/kg
Oral		
LD50	Rat	2,490 mg/kg

85-91-6 Methyl N-methylanthranilate

Acute		
Dermal		
LD50	Rabbit	5,000 mg/kg
Oral		
LD50	Rat	3,380 mg/kg

106-22-9 dl-Citronellol

Acute		
Dermal		
LD50	Rabbit	2,650 mg/kg
Oral		
LD50	Rat	3,450 mg/kg

5392-40-5 Citral

Acute		
Oral		
LD50	Rat	4,960 mg/kg

78-70-6 Linalool

Acute		
Dermal		
LD50	Rabbit	5,610 mg/kg
Oral		
LD50	Rat	2,790 mg/kg

65113-99-7 5-(2,2,3-trimethyl-3-cyclopentenyl)-3-methylpentan-2-ol

Acute		
Oral		
LD50	Rat	6,700 mg/kg

SKIN SENSITIZATION:
Sensitization possible through skin contact.

CARCINOGENICITY:

IARC (International Agency for Research on Cancer):
140-11-4 benzyl acetate: 3
128-37-0 Butylated hydroxytoluene: 3

NTP (National Toxicology Program): None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration): None of the ingredients are listed.

INFORMATION:
The product shows the following dangers according to internally approved calculation methods for preparations: Irritant.

12. Ecological Information

AQUATIC TOXICITY:
No further relevant information available.

PERSISTENCE AND DEGRADABILITY:
No further relevant information available.

BIOACCUMULATIVE POTENTIAL:
No further relevant information available.

MOBILITY IN SOIL:
No further relevant information available.

ADDITIONAL ECOLOGICAL INFORMATION:
General Notes: Water hazard class 2 (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized. Danger to drinking water if even small quantities leak into the ground.

Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

OTHER ADVERSE EFFECTS:
No further relevant information available.

13. Disposal Consideration

DISPOSAL INSTRUCTIONS:

Dispose in a safe manner in accordance with local/national regulations.

14. Transportation Information

DOT: **UN Number:** Not regulated.
UN Proper Shipping Name: Not regulated.
Transport Hazard Class(es):
Class: Not regulated.
Packing Group: Not regulated.

IATA: **UN Number:** Not regulated.
UN Proper Shipping Name: Not regulated.
Transport Hazard Class(es):
Class: Not regulated.
Packing Group: Not regulated.
Environmental Hazards: Not applicable.
Special Precautions For User: Not applicable.

IMDG: **UN Number:** Not regulated.
UN Proper Shipping Name: Not regulated.
Transport Hazard Class(es):
Class: Not regulated.
Packing Group: Not regulated.
Environmental Hazards: Not applicable.
Special Precautions For User: Not applicable.

ADN: **UN Number:** Not regulated.
UN Proper Shipping Name: Not regulated.
Transport Hazard Class(es):
Class: Not regulated.
Packing Group: Not regulated.
Environmental Hazards: Not applicable.
Special Precautions For User: Not applicable.

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:

Not applicable.

UN "MODEL REGULATION":

Not regulated.

15. Regulatory Information

US FEDERAL REGULATIONS:

Safety, health and environmental regulations/legislation specific for the substance or mixture
SARA:
Section 355 (extremely hazardous substances): None of the ingredients are listed.
Section 313 (Specific toxic chemical listings): None of the ingredients are listed.
TSCA (Toxic Substances Control Act): All ingredients are listed.

PROPOSITION 65:

Chemicals known to cause cancer: None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed.
Chemicals known to cause developmental toxicity: None of the ingredients are listed.

CARCINOGENIC CATEGORIES:

EPA (Environmental Protection Agency): None of the ingredients are listed.
TLV (Threshold Limit Value established by ACGIH):

140-11-4 Benzyl Acetate	A4
80-56-8 Alpha-Pinene	A4
127-91-3 Beta-Pinene	A4
128-37-0 Butylated Hydroxytoluene	A4

NIOSH-Ca (National Institute for Occupational Safety and Health): None of the ingredients are listed.

16. Other Information

Abbreviations and Acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitization – Category 1

DISCLAIMER:

To the best of our knowledge, information contained herein is accurate. However, there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard, which exists. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product, which may not be covered by this SDS. The user is responsible for full compliance.

SAFETY DATA SHEET

1. Product and Company Identification

PRODUCT NUMBER:	389401	**COMPANY PHONE:**	1-800-241-8180
PRODUCT NAME:	FRESH SHIELD MAX KIWI GRAPEFRUIT	**EMERGENCY TELEPHONE:**	1-800-535-5053
PRODUCT DESCRIPTION:	Urinal Screen	**INFOTRAC:**	1-800-535-5053
COMPANY INFORMATION:	**PRO CHEM, INC.** 1475 Bluegrass Lakes Parkway Alpharetta, GA 30004		

2. Hazards Identification

GHS CLASSIFICATION:
Eye Damage 1 H318: Causes serious eye damage.
Skin Irritant 2 H315: Causes skin irritation.
Skin Sensitization 1 H317: May cause an allergic skin reaction.
The product is classified and labeled according to the Globally Harmonized System (GHS).

SIGNAL WORD:
DANGER

SYMBOL:

HAZARD STATEMENTS:

Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction.

PRECAUTIONARY STATEMENTS:

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/eye protection/face protection.

Response: IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (See on this label). Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

HAZARDS NOT OTHERWISE SPECIFIED:

No additional information available.

3. Composition / Information on Ingredients

Description: Mixture of the substances listed below with nonhazardous additions.

Chemical Name:	CAS	Concentration % by Weight
Sodium Carbonate	497-19-8	10-50%
Benzenesulfonic acid, C10-13-alkyl derivatives, sodium salts	68411-30-3	≥3-<10%
Beta-Pinene	127-91-3	≥0.1-≤2.5%
Alpha-Pinene	80-56-8	≥0.1-≤2.5%
Citral	5392-40-5	≥1-≤2.5%
(R)-p-mentha-1,8-diene	5989-27-5	≥0.1-<1%
Linalool	78-70-6	≥0.1-<1%
Hydroxycitronellal	107-75-5	≥0.1-<1%
Citrus limon (L.) Burm. F.	68917-33-9	≥0.1-<1%
dl-Citronellol	106-22-9	≥0.1-<1%
Alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	43052-87-5	≥0.1-<1%
Beta-1-(2,6,6-Trimethyl-1-cyclohexen-1-yl)-2-buten-1-one	35044-68-9	≥0.1-<1%
Alpha-Ionone	127-41-3	≥0.1-<1%
Citrus Limon l. burm. f. peel oil	8008-57-9	≥0.1-<1%

4. First Aid Measures

EMERGENCY OVERVIEW:

GENERAL: Immediately remove any clothing soiled by the product.

EYES: Rinse opened eye for several minutes under running water. Then consult a doctor.

SKIN: Immediately wash with water and soap and rinse thoroughly.

INHALATION:

Supply fresh air and to be sure call for a doctor. In case of unconsciousness, place patient stably in side position for transportation.

INGESTION:

If symptoms persist, consult doctor.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED:

No further relevant information available.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

No further relevant information available.

5. Fire-Fighting Measures

SUITABLE FIRE EXTINGUISHING MEDIA:

Use fire fighting measures that suit the environment.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

No further relevant information available.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:

No special measures required.

6. Accidental Release Measures

PERSONAL PRECAUTIONS:

Wear protective equipment. Keep unprotected persons away.

ENVIRONMENTAL PRECAUTIONS:

Do not allow to enter sewers/surface or ground water.

METHODS & MATERIALS FOR CONTAINMENT & CLEANUP:

Use neutralizing agent. Dispose contaminated material as waste according to Section 13 of the SDS. Ensure adequate ventilation.

REFERENCE TO OTHER SECTIONS:

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

PROTECTIVE ACTION CRITERIA FOR CHEMICALS:

Chemical Name	CAS	Value
PAC-1:		
Ethyl vinyl acetate copolymer	24937-78-8	30 mg/m³
sodium carbonate	497-19-8	7.6 mg/m³
decanal	112-31-2	1.8 ppm
(R)-p-mentha-1,8-diene	5989-27-5	15 ppm
Benzyl benzoate	120-51-4	5.7 mg/m³
PAC-2:		
Ethyl vinyl acetate copolymer	24937-78-8	330 mg/m³
sodium carbonate	497-19-8	83 mg/m³
decanal	112-31-2	19 ppm
(R)-p-mentha-1,8-diene	5989-27-5	67 ppm
Benzyl benzoate	120-51-4	63 mg/m³
PAC-3:		
Ethyl vinyl acetate copolymer	24937-78-8	2,000 mg/m³
sodium carbonate	497-19-8	500 mg/m³
decanal	112-31-2	120 ppm
(R)-p-mentha-1,8-diene	5989-27-5	170 ppm
Benzyl benzoate	120-51-4	380 mg/m³

7. Handling and Storage

SAFE HANDLING:

Thorough dedusting. Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: No special measures required.

SAFE STORAGE & INCOMPATIBILITIES:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s): No further relevant information available.

8. Exposure Controls / Personal Protection

Additional information about design of technical systems: No further data; see Section 7 of the SDS.

Components with limit values that require monitoring at the workplace: The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
127-91-3 beta-Pinene	TLV	Long-term value: 112 mg/m³, 20 ppm DSEN
80-56-8 alpha-Pinene	TLV	Long-term value: 112 mg/m³, 20 ppm DSEN
5392-40-5 Citral	TLV	Long-term value: 32* mg/m³, 5* ppm Skin; DSEN; *inhalable fraction + vapor

PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face Protection: Tightly sealed goggles.

Skin Protection: Protective gloves. The glove material has to be impermeable and resistant to the product/the substance/the preparation.
Due to missing tests, no recommendation to the glove material can be given for the product/the preparation/the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
Material of Gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be has to be checked prior to the application.
Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Respiratory Protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.
General Hygiene Considerations: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the skin. Avoid contact with the eyes and skin.
Additional information: The lists that were valid during the creation were used as basis.

9. Physical & Chemical Properties

Form:	Solid.	**Flammability(solid/gas):**	Not determined.
Color:	Pink.	**Organic Solvents:**	0.8%
Odor:	Characteristic.	**Solids Content:**	100.0%
Odor Threshold:	Not determined.	**VOC Content:**	0.60% Exempt Fragrance and no other VOCs.
pH:	Not applicable.	**Explosive Limit-Lower (%):**	Not determined.
Melting Point/Range:	Undetermined.	**Explosive Limit-Upper (%):**	Not determined.
Boiling Point/Range:	>100°C (>212°F)	**Vapor Density:**	Not applicable.
Viscosity Dynamic:	Not applicable.	**Vapor Pressure:**	Not applicable.
Viscosity Kinematic:	Not applicable.	**Relative Density:**	Not determined.
Flash Point:	>100°C (>212°F)	**Auto-Ignition Temp:**	Product is not self-igniting.
Density at 20°C (68°F):	>1 g/cm³ (>8.345 lbs/gal)	**Partition Coeff(n-octanol/water):**	Not determined.
Evaporation Rate:	Not applicable.	**Danger of Explosion:**	Product does not present an explosion hazard.
Decomposition Temp:	Not determined.	**Other Information:**	No further relevant information available.
Solubility (water):	Insoluble.		

10. Stability & Reactivity Information

REACTIVITY:
No further relevant information available.
CHEMICAL STABILITY:
No decomposition if used according to specifications.
POSSIBILITY OF HAZARDOUS REACTIONS:
No dangerous reactions known.
CONDITIONS TO AVOID:
No decomposition if used according to specifications.
INCOMPATIBLE MATERIALS:
No decomposition if used according to specifications.
HAZARDOUS DECOMPOSITION PRODUCTS:
No dangerous decomposition products known.

11. Toxicological Information

PRIMARY ROUTE OF ENTRY:
Eyes: Strong irritant with the danger of severe eye injury.
Skin: Irritant to skin and mucous membranes.
ACUTE TOXICITY:
LD/LC50 values that are relevant for classification:

Components	Species	Test Results
497-19-8 Sodium Carbonate		
Acute		
Oral		
LD50	Rat	4,090 mg/kg
5392-40-5 Citral		
Acute		
Dermal		
LD50		
Oral		
LD50	Rat	4,960 mg/kg
5989-27-5 (R)-p-mentha-1,8-diene		
Acute		
Oral		
LD50	Rat	4,400 mg/kg
78-70-6 Linalool		
Acute		
Dermal		
LD50	Rabbit	5,610 mg/kg

Oral		
LD50	Rat	2,790 mg/kg

106-22-9 dl-Citronellol

Acute		
Dermal		
LD50	Rabbit	2,650 mg/kg
Oral		
LD50	Rat	3,450 mg/kg

127-41-3 Alpha-Ionone

Acute		
Oral		
LD50	Rat	4,590 mg/kg

8008-57-9 citrus limon l. burm. f. peel oil

Acute		
Dermal		
LD50	Rabbit	5,000 mg/kg
Oral		
LD50	Rat	5,000 mg/kg

SKIN SENSITIZATION:
Sensitization possible through skin contact.
CARCINOGENICITY:
IARC (International Agency for Research on Cancer):
5989-27-5 (R)-p-mentha-1,8-diene
128-37-0 Butylated hydroxytoluene
NTP (National Toxicology Program): None of the ingredients is listed.
OSHA-Ca (Occupational Safety & Health Administration): None of the ingredients is listed.
INFORMATION:
The product shows the following dangers according to internally approved calculation methods for preparations: Irritant.

12. Ecological Information

AQUATIC TOXICITY:
No further relevant information available.
PERSISTENCE AND DEGRADABILITY:
No further relevant information available.
BIOACCUMULATIVE POTENTIAL:
No further relevant information available.
MOBILITY IN SOIL:
No further relevant information available.
ADDITIONAL ECOLOGICAL INFORMATION:
General Notes: Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized. Danger to drinking water if even small quantities leak into the ground.
Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.
OTHER ADVERSE EFFECTS:
No further relevant information available.

13. Disposal Consideration

DISPOSAL INSTRUCTIONS:
Dispose in a safe manner in accordance with local/national regulations.

14. Transportation Information

DOT: **UN Number:** Not regulated.
UN Proper Shipping Name: Not regulated.
Transport Hazard Class(es):
Class: Not regulated.
Packing Group: Not regulated.
IATA: **UN Number:** Not regulated.
UN Proper Shipping Name: Not regulated.
Transport Hazard Class(es):
Class: Not regulated.
Packing Group: Not regulated.
Environmental Hazards: Not applicable.
Special Precautions For User: Not applicable.
IMDG: **UN Number:** Not regulated.
UN Proper Shipping Name: Not regulated.
Transport Hazard Class(es):
Class: Not regulated.

Packing Group: Not regulated.
Environmental Hazards: Not applicable.
Special Precautions For User: Not applicable.

ADN:
UN Number: Not regulated.
UN Proper Shipping Name: Not regulated.
Transport Hazard Class(es):
Class: Not regulated.
Packing Group: Not regulated.
Environmental Hazards: Not applicable.
Special Precautions For User: Not applicable.

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:
Not applicable.

UN "MODEL REGULATION":
Not regulated.

15. Regulatory Information

US FEDERAL REGULATIONS:

Safety, health and environmental regulations/legislation specific for the substance or mixture
SARA
Section 355 (extremely hazardous substances): None of the ingredients are listed.
Section 313 (Specific toxic chemical listings): None of the ingredients are listed.
TSCA (Toxic Substances Control Act): All ingredients are listed.

PROPOSITION 65:
Chemicals known to cause cancer: None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed.
Chemicals known to cause developmental toxicity: None of the ingredients are listed.

CARCINOGENIC CATEGORIES:
EPA (Environmental Protection Agency): None of the ingredients are listed.
TLV (Threshold Limit Value established by ACGIH):

127-91-3 Beta-Pinene	A4
80-56-8 Alpha-Pinene	A4
128-37-0 Butylated Hydroxytoluene	A4

NIOSH-Ca (National Institute for Occupational Safety and Health): None of the ingredients are listed.

16. Other Information

Abbreviations and Acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitization – Category 1

DISCLAIMER:

To the best of our knowledge, information contained herein is accurate. However, there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard, which exists. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product, which may not be covered by this SDS. The user is responsible for full compliance.