

SAFETY DATA SHEET

SUGARED BLUEBERRY COAST FRAGRANCE OIL

1. PRODUCT INFORMATION AND COMPANY IDENTIFICATION

Product Name: Sugared Blueberry Coast Fragrance Oil

Company: Natural Bulk Supplies, 318 Half Day Rd, # 348,
Buffalo Grove, IL 60089 Phone: 847-489-7180

Emergency Contact: Infotrac: 800-535-5053(North America) +1-352-323-3500 (International)

2. HAZARD IDENTIFICATION

Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation, Category 2 H315 Causes skin irritation.

Serious eye damage/eye irritation, Category 1 H318 Causes serious eye damage.

Skin sensitization, Category 1 H317 May cause an allergic skin reaction.

Full text of H statements : see section 16

GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US) : Danger

Hazard statements (GHS US) :

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

Precautionary statements (GHS US) :

P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P280 - Wear protective gloves.

P302+P352 - If on skin: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a poison center or doctor.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

Other hazards which do not result in classification

No additional information available

Unknown acute toxicity (GHS US)

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not applicable

Mixtures

Name	Product identifier	%	GHS US classification
BENZYL BENZOATE	(CAS-No.) 120-51-4	10 – 30	Acute Tox. 4 (Oral), H302
ALDEHYDE C 16	(CAS-No.) 77-83-8	5 – 10	Skin Sens. 1B, H317
PHENYL ETHYL ALCOHOL	(CAS-No.) 60-12-8	5 – 10	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
BENZYL SALICYLATE	(CAS-No.) 118-58-1	1 – 5	Eye Irrit. 2B, H320 Skin Sens. 1B, H317
LINALOOL	(CAS-No.) 78-70-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
GERANIOL	(CAS-No.) 106-24-1	1 – 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
HEXYL CINNAMAL	(CAS-No.) 101-86-0	1 – 5	Skin Sens. 1B, H317

Note: The information contained within this document was prepared by technical personnel and is believed to be true and accurate to the best of our knowledge. However, no warranty, express or implied, is provided regarding merchantability, fitness for a particular purpose, performance, safety, suitability, stability, or other aspects of the product. This information is not comprehensive and does not cover all potential conditions of use, handling, storage, disposal, or other factors that may involve legal, environmental, safety, or performance considerations. Natural Bulk Supplies accepts no liability for the use of or reliance upon this information. Our technical personnel are available to address inquiries, but the customer bears ultimate responsibility for the safe handling and use of the product. No suggestions for use are made that would encourage the infringement of existing patents or the violation of any Federal, State, local, or foreign laws.

HYDROXY-CITRONELLAL	(CAS-No.) 107-75-5	1 – 5	Eye Irrit. 2A, H319 Skin Sens. 1B, H317
ACETYL CEDRENE	(CAS-No.) 32388-55-9	1 – 5	Skin Sens. 1B, H317
CITRONELLOL	(CAS-No.) 106-22-9	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
LIMONENE	(CAS-No.) 5989-27-5	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
STRAWBERRY FURANONE	(CAS-No.) 3658-77-3	0.5 – 1	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317
METHYL OCTIN CARBONATE	(CAS-No.) 111-80-8	< 0.5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1A, H317

Full text of hazard classes and H-statements : see section 16

4. FIRST AID MEASURES

Description of first aid measures

First-aid measures general :

If you feel unwell, seek medical advice.

First-aid measures after inhalation :

Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact :

Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs:
Get medical advice/attention.

First-aid measures after eye contact :

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion :

Call a poison center/doctor/physician if you feel unwell.

Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation :
None under normal conditions.

Symptoms/effects after skin contact :
Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact :
Serious damage to eyes.

Symptoms/effects after ingestion :
None under normal conditions.

Immediate medical attention and special treatment, if necessary
Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media :
Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media :
Do not use a heavy water stream.

Specific hazards arising from the chemical

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.

Special protective equipment and precautions for fire-fighters

Firefighting instructions :
Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting :
Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General measures :
Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

For non-emergency personnel

Protective equipment :

Wear recommended personal protective equipment.

Emergency procedures :

Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

For emergency responders

Protective equipment :

Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures :

Evacuate unnecessary personnel. Stop leak if safe to do so.

Environmental precautions

Avoid release to the environment.

Methods and material for containment and cleaning up

For containment :

Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.

Methods for cleaning up :

Take up liquid spill into absorbent material.

Other information :

Dispose of materials or solid residues at an authorized site.

Reference to other sections

For further information refer to section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Additional hazards when processed :

Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling :

Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

Hygiene measures :

Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Conditions for safe storage, including any incompatibilities

Technical measures :

Keep in a cool, well-ventilated place away from heat.

Storage conditions :

Keep cool. Protect from sunlight.

Packaging materials :

Store always product in container of same material as original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

ALDEHYDE C 16 (77-83-8)

Not applicable

BENZYL BENZOATE (120-51-4)

Not applicable

BENZYL SALICYLATE (118-58-1)

Not applicable

CITRONELLOL (106-22-9)

Not applicable

STRAWBERRY FURANONE (3658-77-3)

Not applicable

GERANIOL (106-24-1)

Not applicable

LIMONENE (5989-27-5)

Not applicable

HEXYL CINNAMAL (101-86-0)

Not applicable

HYDROXY-CITRONELLAL (107-75-5)

Not applicable

LINALOOL (78-70-6)

Not applicable

METHYL OCTIN CARBONATE (111-80-8)

Not applicable

PHENYL ETHYL ALCOHOL (60-12-8)

Not applicable

ACETYL CEDRENE (32388-55-9)

Not applicable

Appropriate engineering controls

Appropriate engineering controls :

Ensure good ventilation of the work station.

Environmental exposure controls :

Avoid release to the environment.

Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Color	No data available
Odor	No data available
Odor threshold	No data available
pH	No data available
Melting point	Not applicable
Freezing point	No data available
Boiling point	No data available
Flash point	≈ 99.9 °C
Relative evaporation rate (butyl acetate = 1)	No data available
Flammability	Not applicable
Vapor pressure	No data available
Relative vapor density at 20°C	No data available
Relative density	No data available
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosion limits	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other information

No additional information available

10. STABILITY AND REACTIVITY

Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

Conditions to avoid

None under recommended storage and handling conditions (see section 7).

Incompatible materials

No additional information available

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity (oral) : No data available

Acute toxicity (dermal) : No data available

Acute toxicity (inhalation) : No data available

ALDEHYDE C 16 (77-83-8)

LD50 oral rat	5470 mg/kg (Rat, Male/female, Weight of evidence, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male/female, Experimental value, Dermal)
ATE US (oral)	5470 mg/kg body weight

BENZYL BENZOATE (120-51-4)

LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male/female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2 ml/kg (Modification of Draize 1959 method, 4 h, Rabbit, Experimental value, Dermal)
ATE US (oral)	1160 mg/kg body weight

BENZYL SALICYLATE (118-58-1)

LD50 oral rat	3031 – 3339 mg/kg body weight (EU Method B.1: Acute Toxicity (Oral), Rat, Male/female, Read-across, Oral, 14 day(s))
---------------	--

LD50 dermal rabbit	> 2000 mg/kg body weight (EU Method B.3: Acute toxicity (dermal), 24 h, Rabbit, Male/female, Read-across, Dermal, 14 day(s))
ATE US (oral)	2200 mg/kg body weight

CITRONELLOL (106-22-9)

ATE US (oral)	3450 mg/kg body weight
ATE US (dermal)	2650 mg/kg body weight

STRAWBERRY FURANONE (3658-77-3)

ATE US (oral)	1608 mg/kg body weight
---------------	------------------------

GERANIOL (106-24-1)

LD50 oral rat	3600 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 5000 mg/kg (Rabbit, Experimental value, Dermal)
ATE US (oral)	3600 mg/kg body weight

LIMONENE (5989-27-5)

LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Read-across, Oral)
LD50 dermal rat	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Weight of evidence, Dermal)

HEXYL CINNAMAL (101-86-0)

ATE US (oral)	3100 mg/kg body weight
---------------	------------------------

HYDROXY-CITRONELLAL (107-75-5)

LD50 oral rat	> 6400 mg/kg body weight (Equivalent or similar to OECD 401, 7 day(s), Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rat	> 2000 mg/kg (Rabbit, Experimental value, Dermal, 14 day(s))

LINALOOL (78-70-6)

LD50 oral rat	2790 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
---------------	---

LD50 dermal rabbit	5610 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value, Dermal, 7 day(s))
ATE US (oral)	2790 mg/kg body weight
ATE US (dermal)	5610 mg/kg body weight

METHYL OCTIN CARBONATE (111-80-8)

ATE US (oral)	1600 mg/kg body weight
ATE US (dermal)	4500 mg/kg body weight

PHENYL ETHYL ALCOHOL (60-12-8)

LD50 oral rat	> 1790 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 808 mg/kg (Rabbit, Dermal)
LC50 Inhalation - Rat	> 1.4 mg/l (4 h, Rat, Inhalation)
ATE US (oral)	1610 mg/kg body weight
ATE US (dermal)	2500 mg/kg body weight

ACETYL CEDRENE (32388-55-9)

LD50 oral rat	> 2000 mg/kg (Rat, Oral)
LD50 dermal rat	> 2000 mg/kg (Rabbit, Dermal)
ATE US (oral)	4500 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : No data available

Carcinogenicity : No data available

LINALOOL (78-70-6)

IARC group	3 - Not classifiable
------------	----------------------

Reproductive toxicity : No data available

STOT-single exposure : No data available

STOT-repeated exposure : No data available

LINALOOL (78-70-6)

NOAEL (dermal,rat/rabbit,90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
--------------------------------------	---

Aspiration hazard : No data available
Viscosity, kinematic : No data available

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : None under normal conditions.

12. ECOLOGICAL INFORMATION

Toxicity

Ecology - general: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

ALDEHYDE C 16 (77-83-8)

LC50 - Fish [1]	4.2 mg/l (OECD 203, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, GLP)
ErC50 - Algae	36 mg/l (OECD 201, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

BENZYL BENZOATE (120-51-4)

LC50 - Fish [1]	2.32 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	3.09 mg/l (OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

BENZYL SALICYLATE (118-58-1)

LC50 - Fish [1]	1.03 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	1.16 mg/l (OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

GERANIOL (106-24-1)

LC50 - Fish [1]	22 mg/l (OECD 203, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	10.8 mg/l (OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 - Algae	13.1 mg/l (OECD 201, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)

LIMONENE (5989-27-5)

LC50 - Fish [1]	720 µg/l (OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	0.36 mg/l (OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

HYDROXY-CITRONELLAL (107-75-5)

LC50 - Fish [1]	31.6 mg/l (DIN 38412, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	410 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 - Algae	123.32 mg/l (OECD 201, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

LINALOOL (78-70-6)

LC50 - Fish [1]	27.8 mg/l (OECD 203, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	59 mg/l (OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 - Algae	156.7 mg/l (DIN 38412-9, 96 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

PHENYL ETHYL ALCOHOL (60-12-8)

LC50 - Fish [1]	220–260 mg/l (96 h, Leuciscus idus)
EC50 - Crustacea [1]	287.17 mg/l (OECD 202, 48 h, Daphnia magna)

Persistence and degradability

ALDEHYDE C 16 (77-83-8)

Persistence and degradability	Not readily biodegradable in water.
-------------------------------	-------------------------------------

BENZYL BENZOATE (120-51-4)

Persistence and degradability	Readily biodegradable in water.
-------------------------------	---------------------------------

BENZYL SALICYLATE (118-58-1)

Persistence and degradability	Readily biodegradable in water.
-------------------------------	---------------------------------

CITRONELLOL (106-22-9)

Persistence and degradability	Readily biodegradable in water.
COD	2.05 g O ₂ /g substance
ThOD	2.961 g O ₂ /g substance

GERANIOL (106-24-1)

Persistence and degradability	Readily biodegradable in water.
-------------------------------	---------------------------------

LIMONENE (5989-27-5)

Persistence and degradability	Readily biodegradable in water.
ThOD	3.29 g O ₂ /g substance

HYDROXY-CITRONELLAL (107-75-5)

Persistence and degradability	Readily biodegradable in water.
-------------------------------	---------------------------------

LINALOOL (78-70-6)

Persistence and degradability	Readily biodegradable in water.
-------------------------------	---------------------------------

PHENYL ETHYL ALCOHOL (60-12-8)

Persistence and degradability	Biodegradable in soil. Readily biodegradable in water.
BOD	1.45 g O ₂ /g substance
COD	2.5 g O ₂ /g substance

ThOD	2.6 g O ₂ /g substance
BOD (% of ThOD)	0.558

ACETYL CEDRENE (32388-55-9)

Persistence and degradability	Biodegradability in water: no data available.
-------------------------------	---

Bioaccumulative potential

ALDEHYDE C 16 (77-83-8)

Log Pow	2.4 – 2.8 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log K _{ow} < 4).

BENZYL BENZOATE (120-51-4)

BCF - Fish [1]	2.286 (BCFBAF v3.00, Pisces, QSAR)
Log Pow	3.97 (Experimental value, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log K _{ow} < 4).

BENZYL SALICYLATE (118-58-1)

BCF - Fish [1]	1170 (OECD 305: Bioconcentration: Flow-Through Fish Test, 28 day(s), Danio rerio, Flow-through system, Fresh water, Read-across, GLP)
Log Pow	4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).

CITRONELLOL (106-22-9)

Log Pow	3.41 – 3.91
---------	-------------

GERANIOL (106-24-1)

Log Pow	2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
---------	---

Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
---------------------------	--

LIMONENE (5989-27-5)

BCF - Fish [1]	864.8 – 1022 (Pisces, QSAR, Fresh weight)
Log Pow	4.38 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 37 °C)
Bioaccumulative potential	Potential for bioaccumulation.

HYDROXY-CITRONELLAL (107-75-5)

BCF - Fish [1]	11.52 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Log Pow	1.68 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

LINALOOL (78-70-6)

Log Pow	2.84 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

PHENYL ETHYL ALCOHOL (60-12-8)

Log Pow	1.38 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

ACETYL CEDRENE (32388-55-9)

Bioaccumulative potential	No bioaccumulation data available.
---------------------------	------------------------------------

Mobility in soil

ALDEHYDE C 16 (77-83-8)

Surface tension	59 N/m (19.6 °C, 0.79 g/l, OECD 115: Surface Tension of Aqueous Solutions)
-----------------	--

Log Koc	2.34 – 2.74 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Low potential for adsorption in soil.

BENZYL BENZOATE (120-51-4)

Surface tension	0.027 N/m (210 °C)
Log Koc	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Ecology - soil	Low potential for mobility in soil.

BENZYL SALICYLATE (118-58-1)

Surface tension	69 mN/m (20 °C, 0.004 g/l, EU Method A.5: Surface tension)
Log Koc	3.75 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Ecology - soil	Low potential for mobility in soil.

GERANIOL (106-24-1)

Log Koc	1.85 (log Koc, PCKOCWIN v1.66, Calculated value)
Ecology - soil	Highly mobile in soil.

LIMONENE (5989-27-5)

Ecology - soil	Adsorbs into the soil.
----------------	------------------------

HYDROXY-CITRONELLAL (107-75-5)

Log Koc	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

LINALOOL (78-70-6)

Surface tension	8.3 mN/m (20 °C, ISO 9101: Surface active agents - Determination of interfacial tension)
-----------------	--

Ecology - soil	No (test) data on mobility available.
----------------	---------------------------------------

Other adverse effects

No additional information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Regional waste regulation :

Disposal must be done according to official regulations.

Waste treatment methods :

Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations :

Disposal must be done according to official regulations.

Product/Packaging disposal recommendations :

Disposal must be done according to official regulations.

Additional information :

Do not re-use empty containers.

14. TRANSPORT INFORMATION

Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT) : UN3082 Environmentally hazardous substances, liquid, n.o.s. (BENZYL BENZOATE), 9, III

UN-No.(DOT) :

UN3082

Proper Shipping Name (DOT) :
BENZYL BENZOATE

Environmentally hazardous substances, liquid, n.o.s.

Class (DOT) :
CFR 173.140

9 - Class 9 - Miscellaneous hazardous material 49

Packing group (DOT) :
Hazard labels (DOT) :

III - Minor Danger

9 - Class 9 (Miscellaneous dangerous materials)



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Symbols : G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102) :

8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.

146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.

173 - An appropriate generic entry may be used for this material.

335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging.

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 155

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No Limit

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No Limit

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Emergency Response Guide (ERG) Number : 171

Other information : No supplementary information available.

15. REGULATORY INFORMATION

US Federal regulations

No additional information available

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopent a-gamma-2-benzopyran	CAS-No. 1222-05-5	10 – 30%
---	-------------------	----------

16. OTHER INFORMATION

Full text of hazard classes and H-statements:

H226 Flammable liquid and vapor
H227 Combustible liquid
H302 Harmful if swallowed
H304 May be fatal if swallowed and enters airways
H314 Causes severe skin burns and eye damage
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H319 Causes serious eye irritation
H320 Causes eye irritation

All statements, technical information and recommendations contained herein are based on tests and data which Natural Bulk Supplies believes to be currently reliable, but this accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto. This information is not intended as a license to operate under or a recommendation to practice or infringe any patent of this company or others covering any process, composition of matter or use. Since we shall have no control of the use of the product described here in, we assume no Liability for loss or damage incurred from the proper or improper use of such product.