natural
BULK SUPPLIES

SAFETY DATA SHEET
ZEN & ROAST FRAGRANCE OIL

1. PRODUCT INFORMATION AND COMPANY IDENTIFICATION

Product Name: Zen & Roast 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
Serious eye damage/eye irritation, Category 2A H319 Causes serious eye irritation.
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) : Warning

Hazard statements (GHS US) :
H319 - Causes serious eye irritation

Precautionary statements (GHS US) :
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice or attention.

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
2H-pyran-4-ol, tetrahydro-4-methyl-2-(2-methylpropyl)-	(CAS-No.) 63500-71-0	5 – 10	Eye Irrit. 2A, H319
PHENYL ETHYL ALCOHOL	(CAS-No.) 60-12-8	1 – 5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
VANILLIN	(CAS-No.) 121-33-5	1 – 5	Eye Irrit. 2A, H319

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.

First-aid measures after eye contact :
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.

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 :
None under normal conditions.

Symptoms/effects after eye contact :
Eye irritation.

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 : Combustible liquid.
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.

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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective

equipment.

Hygiene measures :
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 :
Store in a well-ventilated place. Keep cool.

Packaging materials :
Always store product in container of same material as original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
BENZYL BENZOATE (120-51-4)
Not applicable

VANILLIN (121-33-5)
Not applicable

2H-pyran-4-ol, tetrahydro-4-methyl-2-(2-methylpropyl)- (63500-71-0)
Not applicable

PHENYL ETHYL ALCOHOL (60-12-8)
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	> 100 °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	No data available

Pow)	
Auto-ignition temperature	No data available
Decomposition temperature	No data available
No data availableViscosity, 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) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

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

VANILLIN (121-33-5)

LD50 oral rat	3300 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, 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, 14 day(s))
ATE US (oral)	3300 mg/kg body weight
ATE US (dermal)	2600 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

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : No data available
Carcinogenicity : No data available

Reproductive toxicity : No data available
STOT-single exposure : No data available

STOT-repeated exposure : No data available

Aspiration hazard : No data available

Viscosity, kinematic : No data available

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : Eye irritation.
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.

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: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

VANILLIN (121-33-5)

LC50 - Fish [1]	57 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	36.79 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	120 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

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: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna)

Persistence and degradability

BENZYL BENZOATE (120-51-4)

Persistence and degradability	Readily biodegradable in water.

VANILLIN (121-33-5)

Persistence and degradability	Readily biodegradable in water.

2H-pyran-4-ol, tetrahydro-4-methyl-2-(2-methylpropyl)- (63500-71-0)

Persistence and degradability	Biodegradability in water: no data available.

PHENYL ETHYL ALCOHOL (60-12-8)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.45 g O2/g substance
Chemical oxygen demand (COD)	2.5 g O2/g substance
ThOD	2.6 g O2/g substance
BOD (% of ThOD)	0.558

Bioaccumulative potential

BENZYL BENZOATE (120-51-4)

BCF - Fish [1]	2.286 (BCFBAF v3.00, Pisces, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.97 (Experimental value, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

VANILLIN (121-33-5)

Partition coefficient n-octanol/water (Log Pow)	1.17 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)

Partition coefficient n-octanol/water (Log Pow)	4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2H-pyran-4-ol, tetrahydro-4-methyl-2-(2-methylpropyl)- (63500-71-0)

Bioaccumulative potential	No bioaccumulation data available.

PHENYL ETHYL ALCOHOL (60-12-8)

Partition coefficient n-octanol/water (Log Pow)	1.38 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Mobility in soil

BENZYL BENZOATE (120-51-4)

Surface tension	0.027 N/m (210 °C)
Organic Carbon Normalized Adsorption Coefficient (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.

VANILLIN (121-33-5)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.438 (log Koc, Experimental value)
Ecology - soil	Low potential for mobility in soil.

2H-pyran-4-ol, tetrahydro-4-methyl-2-(2-methylpropyl)- (63500-71-0)

Ecology - soil	No (test)data on mobility of the substance 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

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) : Environmentally hazardous substances, liquid, n.o.s. BENZYL BENZOATE
Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 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-hexamethylcyclopenta-gamma-2-benzopyran	CAS-No. 1222-05-5	5 – 10%

natural
BULK SUPPLIES

16. OTHER INFORMATION

Full text of hazard classes and H-statements:
H302 Harmful if swallowed
H319 Causes serious 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.