

502550 Alpha Pinene (Natural)

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Print Date: 11-23-2015 Version # 04

1. IDENTIFICATION

Product Description: Alpha Pinene (Natural)

CAS# 80-56-8 2902 **FEMA Number**

Other means of identification

Vigon Item # 502550

Recommended use Concentrated aromatic and flavor ingredient which may be used in flavor and fragrance

compounds according to legal and IFRA or FEMA GRAS/FDA guidelines.

Recommended restrictions For Manufacturing Use Only

Company 24 Hour Emergency Response Information

Vigon International, Inc. INFOTRAC (ACCT# 78928);

1-800-535-5053 WITHIN THE U.S.A. 127 Airport Road 1-352-323-3500 OUTSIDE THE U.S.A. E. Stroudsburg, PA 18301

For information call: 570-476-6300 Web Site: www.vigon.com

2. HAZARD(S) IDENTIFICATION

Physical hazards Flammable liquids Category 3 Health hazards Acute toxicity, oral Category 5 Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A Sensitization, skin Category 1

Specific target organ toxicity, single

exposure

Category 3 respiratory tract irritation

Category 1

Category 1

Aspiration hazard

Hazardous to the aquatic environment,

acute hazard

Hazardous to the aquatic environment, Category 1

long-term hazard

Label elements

Environmental hazards



Signal word Danger

Hazard statement

H226 Flammable liquid and vapor. H303 May be harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H315 + H320 Causes skin and eye irritation.



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H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing mist or vapor.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
Response	
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303 + P361 +	
P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 +	
P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P331	Do NOT induce vomiting.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Storage

P391

P337 + P313 P362 + P364

P370 + P378

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use appropriate media to extinguish.

Take off contaminated clothing and wash it before reuse.

P403 + P235 Store in a well-ventilated place. Keep cool.

Collect spillage.

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information None.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Chemical name	Common name and synonyms	CAS number	%
PINENE ALPHA	dextro,laevo-pin-2(3)-ene	80-56-8	100
	2,6,6 - trimethyl bicyclo-3,1,1-2-heptene		
	4,7,7- trimethylbicyclo[3.1.1]hept-3-ene		

4. FIRST-AID MEASURES

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or

persist.

Skin contact Take off immediately all contaminated clothing. Get medical attention if irritation develops and

persists. Wash skin thoroughly with soap and water for several minutes.

Eye contact Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and

persists. Promptly wash eyes with plenty of water while lifting the eye lids.

Ingestion Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if

the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low

so that stomach vomit doesn't enter the lungs.

Most important

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special treatment

needed

General information

Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Not available.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves. Show this safety data sheet to the doctor in attendance.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Water spray, fog, CO2, dry chemical, or alcohol resistant foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from

the chemical

Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment Firefighters must use standard protective equipment including flame retardant coat, helmet with and precautions for firefighters face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective

clothing will only provide limited protection. Wear self-contained breathing apparatus with a full

facepiece operated in the positive pressure demand mode when fighting fires.

Fire fighting In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and equipment/instructions consider the hazards of other involved materials. Move containers from fire area if you can do so

without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.

Specific methods Use water spray to cool unopened containers.

General fire hazards Static charges generated by emptying package in or near flammable vapor may cause flash fire.



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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Methods and materials for containment and cleaning up

Keep unnecessary personnel away. Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Prevent product from entering drains. Do not allow material to contaminate ground water system. Absorb in vermiculite, dry sand or earth and place into containers.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Collect and dispose of spillage as indicated in section 13 of the SDS.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid release to the environment. Retain and dispose of contaminated wash water. Contact local authorities in case of spillage to drain/aquatic environment.

7. HANDLING AND STORAGE

Precautions for safe handling

Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. ACGIH Threshold Limit Values

Material	Туре	Value	
PINENE ALPHA (CAS	TWA	20 ppm	
80-56-8)			

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Use explosion-proof ventilation equipment to stay below exposure limits. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.



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Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Chemical resistant gloves.

Other Use of an impervious apron is recommended.

Respiratory protection Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must

be provided.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. Keep away from food and drink. Always observe good personal

hygiene measures, such as washing after handling the material and before eating, drinking, and/or

smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Refer to Spec Sheet

Physical state Liquid.
Form Liquid.

Color Refer to Spec Sheet

Odor Characteristic.

Odor threshold Not available.

pH Not available.

Melting point/freezing point -80.5 °F (-62.5 °C)

Initial boiling point and boiling

range

312.8 °F (156 °C) 101.325 kPa

Flash point 90.0 °F (32.2 °C) Closed Cup

Evaporation rate Not available.
Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 22 - 24 mm Hg at 25 °C

Vapor density 4.7

Relative density Not available.

Solubility(ies)

Solubility (water) Insoluble



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Partition coefficient 4.8

(n-octanol/water)

Auto-ignition temperature 491 °F (255 °C)

Decomposition temperature Not available.

Viscosity Not available.

Other information

Density 0.86 g/cm3 estimated
Flammability class Flammable IC estimated

Molecular formulaC10-H16Molecular weight136.24 g/molSpecific gravity0.86 at 25 °C

10. STABILITY AND REACTIVITY

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

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

Conditions to avoid

reactions

No dangerous reaction known under conditions of normal use.

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

products

No hazardous decomposition products if stored and handled as indicated.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation. Causes mild eye irritation.

Ingestion May be harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or

vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics

Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis.

Rash.

Information on toxicological effects

Acute toxicity In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and

central nervous system effects. May be fatal if swallowed and enters airways. May cause an

allergic skin reaction. May cause respiratory irritation.



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Product Species Test Results

PINENE ALPHA (CAS 80-56-8)

Acute

Dermal

LD50 Rabbit > 5000 mg/kg

Oral

LD50 Rat 3700 mg/kg Remarks: Brain and

Coverings:Recordings from specific areas of CNS. Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or

Respiration:Other changes.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye

Causes serious eye irritation.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity

ACGIH Carcinogens

PINENE ALPHA (CAS 80-56-8)

A4 Not classifiable as a human carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

May cause respiratory irritation.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful.

12. ECOLOGICAL INFORMATION

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Product Species Test Results

PINENE ALPHA (CAS 80-56-8)

Aquatic

Crustacea LC50 Daphnia magna 41 mg/l, 48 hours

^{*} Estimates for product may be based on additional component data not shown.



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 Product
 Species
 Test Results

 Fish
 LC50
 Fathead minnow (Pimephales promelas)
 0.28 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability Biodegradability Biotic/Aerobic

Result: - Readily biodegradable.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

4.83

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructionsDo not discharge into drains, water courses or onto the ground. Do not allow this material to drain

into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or

used container. Dispose of contents/container in accordance with

local/regional/national/international regulations.

Local disposal regulationsDispose in accordance with all applicable regulations.

Hazardous waste code Not established.

Waste from residues / unused

products

Empty containers or liners may retain some product residues. This material and its container must

be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. TRANSPORT INFORMATION

ADN

UN number 2368

UN proper shipping name alpha-PINENE

Transport hazard class(es) 3
Subsidiary class(es) Packing group III
Environmental hazards Yes
Labels required 3

ADR

UN number 2368

UN proper shipping name alpha-PINENE

Transport hazard class(es) 3
Subsidiary class(es) Packing group III
Environmental hazards Yes
Labels required 3

RID

UN number 2368



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UN proper shipping name alpha-PINENE

Transport hazard class(es) 3
Subsidiary class(es) Packing group III
Environmental hazards Yes
Labels required 3

DOT BULK

UN number 2368

Proper shipping name alpha-Pinene

Hazard class 3
Packing group III

Environmental hazards

Marine pollutantYesPackaging exceptions150Packaging bulk242Labels required3

DOT

NON-BULK

UN number 2368

Proper shipping name alpha-Pinene

Hazard class 3
Packing group III

Environmental hazards

Marine pollutantNoPackaging exceptions150Packaging non bulk203Labels required3

IATA

UN number 2368

UN proper shipping name alpha-Pinene

Transport hazard class(es) 3
Subsidiary class(es) Packing group III
Environmental hazards No
Labels required 3

IMDG

UN number 2368

UN proper shipping name alpha-PINENE

Transport hazard class(es) 3
Subsidiary class(es) Packing group III
Environmental hazards

Marine pollutant Yes



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Labels required

3

Transport in bulk according

Not applicable.

to Annex II of MARPOL 73/78 and the IBC Code

ADN; ADR; DOT BULK; DOT NON-BULK; IATA; IMDG; RID



Marine pollutant



15. REGULATORY INFORMATION

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No



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SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Yes

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

US. Massachusetts RTK - Substance List

PINENE ALPHA (CAS 80-56-8)

US. New Jersey Worker and Community Right-to-Know Act

PINENE ALPHA (CAS 80-56-8)

US. Pennsylvania Worker and Community Right-to-Know Law

PINENE ALPHA (CAS 80-56-8)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes



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Country(s) or region Inventory name On inventory (yes/no)*

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

 Issue date
 11-23-2015

 Revision date
 02-24-2015

Version # 04

HMIS® ratings Health: 2*

Flammability: 3 Physical hazard: 0

Disclaimer Vigon cannot anticipate all conditions under which this information and its product, or the products

of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, disposal, and should not be considered as a guarantee or quality specification. The above information is based on data provided by and collected from recognized sources such as

distributors, manufacturers, and technical groups and is considered to be accurate to the best of Vigon's knowledge as of the date of this document. It is the responsibility of the user to review all safety information about this product and determine its safety and suitability in their own processes and operations. Appropriate warnings and safe handling procedures should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors

relating to such use in accordance with all applicable laws and regulations.

Revision Information Product and Company Identification: Vigon Values

FIRST-AID MEASURES: Most important symptoms/effects, acute and delayed

ACCIDENTAL RELEASE MEASURES: Methods and materials for containment and cleaning up

EXPOSURE CONTROLS/PERSONAL PROTECTION: Eye/face protection

Physical & Chemical Properties: Multiple Properties Toxicological Information: Toxicological Data TOXICOLOGICAL INFORMATION: Ingestion

TOXICOLOGICAL INFORMATION: Symptoms related to the physical, chemical and toxicological

characteristics

Regulatory Information: United States

OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION: Disclaimer