

SAFETY DATA SHEET

DENFRO

Date Revised: August 2025
Supersedes: July 2020

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : DENFRO
Product Number : N/A
Product Form : Pure pheromone attractant [liquid]
Brand : Alpha Scents

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Insect Lure for Southern Pine Beetle, *Dendroctonus frontalis*

1.3 Details of the supplier of the safety data sheet

Company : Alpha Scents, Inc
360 S. Sequoia Pkwy.
CANBY OR 97013
USA
Telephone : 503-342-8611
Fax : 314-271-7297

1.4 Emergency telephone number

Emergency Phone # : 800-222-1222

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS-none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

- (1) Chemical Name : 1,5-Dimethyl-6,8-dioxabicyclo[3.2.1]octane (100%)
Synonyms : Frontalin

Formula : C₈H₁₄O₂
Molecular weight : 142.2
CAS-No. : 60478-96-8
EC Number : N/A
- (2) Chemical Name : L-Turpentine
Synonyms : Turpentine

Formula :
Molecular weight :
CAS-No. : 8006-64-2

EC Number : 232-350-7

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

None required).

Skin protection

Handle with gloves. None required if lure is in foil pouch. Gloves should be used when handling lures removed from foil pouch.
Wash and dry hands.

This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

None required.

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

(1) 1,5-Dimethyl-6,8-dioxabicyclo[3.2.1]octane

a) Appearance	Form: liquid, clear Color: colorless
b) Odor	Characteristic
c) Odor threshold	No data available
d) pH	No data available
e) Melting point/freezing	No data available.
f) Initial boiling point and	58-60°C @ 20 mm Hg boiling range
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	No data available
l) Vapor density	No data available
m) Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

(2) Turpentine

a) Appearance	Form: liquid Color: colorless
b) Odor	Pungent
c) Odor threshold	No data available
d) pH	No data available
e) Melting point/freezing	-55° C
f) Initial boiling point and	153-175°C @ 20 mm Hg boiling range
g) Flash point	36°C
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or Lower explosion limit:	Upper explosion limit: 6 %(V) 0.8 %(V)
k) Vapor pressure	5 hPa (4 mmHg) at 20 °C (68 °F)
l) Vapor density	0.86 g/cm3 at 25 °C (77 °F)
m) Relative density	No data available

n) Water solubility	0.351 g/l at 20 °C (68 °F)
o) Partition coefficient n-octanol/water	No data available
p) Auto-ignition temperature	270°C
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong bases, Strong oxidizing agents, Strong reducing agents

10.6 Hazardous decomposition products

Other decomposition products-No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available

Inhalation: No data available

LD50 Dermal -Rabbit-> 5,000 mg/kg

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

Reproductive toxicity

No data available

Specific target organ toxicity -single exposure

No data available

Specific target organ toxicity -repeated exposure

No data available

Aspiration hazard

No data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Product Offer surplus and non-recyclable solutions to a licensed disposal company

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

EPA Exempted from label requirements; CFR 40 152.25(b) if used for monitoring purposes in traps.

16. OTHER INFORMATION**HMIS Rating**

Health hazard	:	1
Chronic Health Hazard	:	0
Flammability	:	0
Physical Hazard	:	0

NFPA Rating

Health hazard	:	1
Fire Hazard	:	0
Reactivity Hazard	:	0

Further information

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