

**SAFETY DATA SHEET****500670 HELIOTROPINE NATURAL**

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**1. IDENTIFICATION**

**Product Description:** HELIOTROPINE NATURAL  
**CAS #** 120-57-0  
**FEMA Number** 2911  
**Other means of identification**  
**Vigon Item #** 500670  
**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

Vigon International, Inc.  
127 Airport Road  
E. Stroudsburg, PA 18301  
For information call: 570-476-6300  
Web Site: www.vigon.com

24 Hour Emergency Response Information

INFOTRAC (ACCT# 78928);  
1-800-535-5053 WITHIN THE U.S.A.  
1-352-323-3500 OUTSIDE THE U.S.A.

**Manufacturer/Importer/Supplier/Distributor information****Manufacturer**

**Company name** Vigon International, Inc.  
**Address** 127 Airport Road  
E. Stroudsburg, PA 18301  
United States  
**Telephone** For information call: 570-476-6300  
**Website** www.vigon.com  
**E-mail** Not available.  
**Emergency phone number** INFOTRAC (ACCT# 78928);  
1-800-535-5053 WITHIN THE U.S.A.  
1-352-323-3500 OUTSIDE THE U.S.A.

**2. HAZARD(S) IDENTIFICATION**

**Physical hazards** Not classified.  
**Health hazards** Acute toxicity, oral Category 5  
Sensitization, skin Category 1  
**Environmental hazards** Not classified.

**Label elements**

**Signal word** Warning  
**Hazard statement** May be harmful if swallowed. May cause an allergic skin reaction.

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#### Precautionary statement

<b>Prevention</b>	Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.
<b>Response</b>	IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Hazard(s) not otherwise classified (HNOC)</b>	WARNING! May form combustible dust concentrations in air. Avoid breathing dust. After prolonged contact with highly porous materials, this product may spontaneously combust.
<b>Supplemental information</b>	100% of the substance consists of component(s) of unknown acute inhalation toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substances

Chemical name	Common name and synonyms	CAS number	%
PIPERONYL ALDEHYDE	piperonaldehyde 5-FORMYL-1,3-BENZODIOXOLE PIPERONAL 3,4 dimethylene dioxybenzaldehyde 1,3-BENZODIOXOL-5-CARBOXALDEHY DE	120-57-0	100

### 4. FIRST-AID MEASURES

<b>Inhalation</b>	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.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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.
<b>Most important symptoms/effects, acute and delayed</b>	Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.
<b>Indication of immediate medical attention and special treatment needed</b>	Not available.
<b>General information</b>	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

<b>Suitable extinguishing media</b>	Water spray, fog, CO <sub>2</sub> , dry chemical, or alcohol resistant foam.
<b>Unsuitable extinguishing media</b>	Do not use a solid water stream as it may scatter and spread fire.



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<b>Specific hazards arising from the chemical</b>	Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Fire may produce irritating, corrosive and/or toxic gases.  Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with 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.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and 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.
<b>Specific methods</b>	Use water spray to cool unopened containers.
<b>General fire hazards</b>	Static charges generated by emptying package in or near flammable vapor may cause flash fire.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.
<b>Methods and materials for containment and cleaning up</b>	Sweep up and place in a clearly labeled container for chemical waste. Wash contaminated area with water. Collect and dispose of spillage as indicated in section 13 of the SDS. This material and its container must be disposed of as hazardous waste. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Use only non-sparking tools. Avoid the generation of dusts during clean-up.  Never return spills in original containers for re-use.
<b>Environmental precautions</b>	Retain and dispose of contaminated wash water. Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

## 7. HANDLING AND STORAGE

<b>Precautions for safe handling</b>	Take precautionary measures against static discharges when there is a risk of dust explosion. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Do not handle or store near an open flame, heat or other sources of ignition. Assume that this material is capable of producing a dust explosion if ignited as a dust cloud.  Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material. May auto-oxidize with sufficient heat generation to ignite if spread (as a thin film) or absorbed on porous or fibrous material. Take precautionary measures against static discharges. Contaminated rags and cloths must be put in fireproof containers for disposal. Avoid breathing vapor. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.
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**Conditions for safe storage, including any incompatibilities**

Do not store in direct sunlight. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Keep under a nitrogen blanket.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational exposure limits**

This substance has no PEL, TLV, or other recommended exposure limit.

**Biological limit values**

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

**Exposure guidelines**

Dust, inhalable:

Austria: limit value - 8 hours = 10 mg/m<sup>3</sup>

Austria: limit value - short term = 20 mg/m<sup>3</sup>

Belgium: limit value - 8 hours = 10 mg/m<sup>3</sup>

Denmark: limit value - 8 hours = 10 mg/m<sup>3</sup>

Denmark: limit value - short term = 20 mg/m<sup>3</sup>

France: limit value - 8 hours = 10 mg/m<sup>3</sup> (restrictive statutory limit value)

Germany (AGS): limit value - 8 hours = 10 mg/m<sup>3</sup>

Germany (AGS): limit value - short term = 20 mg/m<sup>3</sup>

Germany (DFG): limit value - 8 hours = 4 mg/m<sup>3</sup>

Hungary: limit value - 8 hours = 10 mg/m<sup>3</sup>

Spain: limit value - 8 hours = 10 mg/m<sup>3</sup>

Sweden: limit value - 8 hours = 10 mg/m<sup>3</sup>

Switzerland: limit value - 8 hours = 10 mg/m<sup>3</sup>

Dust, respirable:

Austria: limit value - 8 hours = 5 mg/m<sup>3</sup>

Austria: limit value - short term = 10 mg/m<sup>3</sup>

Belgium: limit value - 8 hours = 3 mg/m<sup>3</sup>

France: limit value - 8 hours = 5 mg/m<sup>3</sup> (restrictive statutory limit value)

Germany (AGS): limit value - 8 hours = 3 mg/m<sup>3</sup>

Germany (AGS): limit value - short term = 6 mg/m<sup>3</sup>

Germany (DFG): limit value - 8 hours = 1.5 mg/m<sup>3</sup>

Hungary: limit value - 8 hours = 6 mg/m<sup>3</sup>

Spain: limit value - 8 hours = 3 mg/m<sup>3</sup>

Sweden: limit value - 8 hours = 5 mg/m<sup>3</sup>

Switzerland: limit value - 8 hours = 3 mg/m<sup>3</sup>

· Additional information: This sheet is based on the current valid lists.

**Appropriate engineering controls**

Use explosion-proof ventilation equipment to stay below exposure limits. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks. Adequate ventilation should be provided so that exposure limits are not exceeded.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection**

Chemical resistant gloves.

**Other**

Use of an impervious apron is recommended.

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<b>Respiratory protection</b>	Dust mask.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	When using, do not eat, drink or smoke. 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

<b>Appearance</b>	Refer to Spec Sheet
<b>Physical state</b>	Powder\Crystal.
<b>Form</b>	Powder. Crystalline powder.
<b>Color</b>	Refer to Spec Sheet
<b>Odor</b>	Characteristic.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	98.6 °F (37 °C)
<b>Initial boiling point and boiling range</b>	505.4 °F (263 °C) 101.325 kPa
<b>Flash point</b>	> 200.0 °F (> 93.3 °C) Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	0.01 mm Hg at 25 °C
<b>Vapor density</b>	5.2
<b>Relative density</b>	1.337 ± 0.06 at 20 °C
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble
<b>Partition coefficient (n-octanol/water)</b>	1.05 log Kow
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Combustible IIIB estimated

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<b>Molecular formula</b>	C8-H6-O3
<b>Molecular weight</b>	150.13 g/mol
<b>Oxidizing properties</b>	Not oxidizing.

#### 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products if stored and handled as indicated.

#### 11. TOXICOLOGICAL INFORMATION

##### Information on likely routes of exposure

<b>Inhalation</b>	Irritating to respiratory system.
<b>Skin contact</b>	Dust or powder may irritate the skin. May cause an allergic skin reaction.
<b>Eye contact</b>	Dust may irritate the eyes.
<b>Ingestion</b>	May be harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics**  
 Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.

##### Information on toxicological effects

**Acute toxicity** May be harmful if swallowed.

Product	Species	Test Results
PIPERONYL ALDEHYDE (CAS 120-57-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	2700 mg/kg

**Skin corrosion/irritation** Due to partial or complete lack of data the classification is not possible. May cause irritation by prolonged skin contact. guinea pig - Skin irritation - 48 h

**Serious eye damage/eye irritation** Due to partial or complete lack of data the classification is not possible. Fine particles and powder may cause eye irritation by mechanical effect. rabbit - Mild eye irritation - 48 h

##### Respiratory or skin sensitization

**Respiratory sensitization** Due to partial or complete lack of data the classification is not possible.

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<b>Skin sensitization</b>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible. Genotoxicity in vitro - Human - lymphocyte Sister chromatid exchange Genotoxicity in vitro - Chicken - Embryo Sister chromatid exchange
<b>Carcinogenicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	Not listed.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	Not listed.
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	Not listed.
<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this substance.
<b>Bioaccumulative potential</b>	
<b>Partition coefficient n-octanol / water (log Kow)</b>	1.05, log Kow
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	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

<b>Disposal instructions</b>	Do 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.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	Not established.
<b>Waste from residues / unused products</b>	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).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.



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#### 14. TRANSPORT INFORMATION

##### ADN

Not regulated as dangerous goods.

##### ADR

Not regulated as dangerous goods.

##### RID

Not regulated as dangerous goods.

##### DOT

##### BULK

Not regulated as dangerous goods.

##### DOT

##### NON-BULK

Not regulated as dangerous goods.

##### IATA

Not regulated as dangerous goods.

##### IMDG

Not regulated as dangerous goods.

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#### 15. REGULATORY INFORMATION

##### US federal regulations

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

##### Toxic Substances Control Act (TSCA)

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

Not regulated.

##### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

##### SARA 304 Emergency release notification

Not regulated.

##### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

##### Superfund Amendments and Reauthorization Act of 1986 (SARA)

###### SARA 302 Extremely hazardous substance

Not listed.

###### SARA 311/312 Hazardous chemical

Yes

###### Classified hazard categories

Combustible dust  
Respiratory or skin sensitization

###### SARA 313 (TRI reporting)

Not regulated.





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#### 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 (SDWA)** Not regulated.

##### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

PIPERONYL ALDEHYDE (CAS 120-57-0) 20 %WV

##### DEA Exempt Chemical Mixtures Code Number

PIPERONYL ALDEHYDE (CAS 120-57-0) 8750

**Food and Drug Administration (FDA)** Controlled substance

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#### 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Issue date** 04-26-2017

**Revision date** 07-11-2019

**Version #** 05

**Further information** Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

**HMIS® ratings** Health: 2  
Flammability: 1  
Physical hazard: 0

**Disclaimer** Vigon International, Inc. 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, and disposal and should not be considered as a guarantee or quality specification. This product has not been evaluated for safe use in e-cigarettes or any vaping application where the product(s) is/are intentionally vaporized and inhaled. Vigon International, Inc. has performed no testing on these products in e-cig/vaping applications. It is the sole responsibility of the individual(s) purchasing this product to assess its' safety in the final application. 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.



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**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.