

SAFETY DATA SHEET**500788 INDOLE F&F**

Revision Date: 12-13-2022

Page 1 of 10

Version # 05

Print Date: 12-13-2022

1. IDENTIFICATION

Product Description: **INDOLE F&F**
CAS # 120-72-9
FEMA Number 2593
Other means of identification
Vigon Item # 500788
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, LLC
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, LLC
Address 127 Airport Road
E. Stroudsburg, PA 18301
United States
Telephone For information call: 570-476-6300
Website www.vigon.com
E-mail regulatory@vigon.com
Emergency phone number INFOTRAC (ACCT# 78928);
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2. HAZARD(S) IDENTIFICATION

Physical hazards Not classified.
Health hazards Acute toxicity, oral Category 4
Acute toxicity, dermal Category 3
Serious eye damage/eye irritation Category 1
Environmental hazards Not classified.

Label elements**Signal word**

Danger

Hazard statement

Harmful if swallowed. Toxic in contact with skin. Causes serious eye damage.

SAFETY DATA SHEET

500788 INDOLE F&F

Revision Date: 12-13-2022

Page 2 of 10

Version # 05

Print Date: 12-13-2022

Precautionary statement

Prevention

Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye protection/face protection. Wear protective gloves/protective clothing.

Response

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Take off immediately all contaminated clothing and wash it before reuse.

Storage

Store locked up.

Disposal

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

Hazard(s) not otherwise classified (HNOC)

WARNING! May form combustible dust concentrations in air. Avoid breathing dust.

Supplemental information

100% of the substance consists of component(s) of unknown acute inhalation toxicity. 100% of the substance consists of component(s) of unknown acute hazards to the aquatic environment. 100% of the substance consists of component(s) of unknown long-term hazards to the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Chemical name	Common name and synonyms	CAS number	%
INDOLE	1-benzazole 1H- indole KETOLE BENZOPYRROLE	120-72-9	100

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

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes.

Indication of immediate medical attention and special treatment needed

Not available.

General information

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.

SAFETY DATA SHEET

500788 INDOLE F&F

Revision Date: 12-13-2022

Page 3 of 10

Version # 05

Print Date: 12-13-2022

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	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.
Special protective equipment and precautions for firefighters	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.
Fire fighting equipment/instructions	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.
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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	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.
Methods and materials for containment and cleaning up	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.
Environmental precautions	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

Precautions for safe handling	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. Take precautionary measures against static discharges. Avoid breathing vapor. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.
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SAFETY DATA SHEET

500788 INDOLE F&F

Revision Date: 12-13-2022

Page 4 of 10

Version # 05

Print Date: 12-13-2022

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

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

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. 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.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Chemical goggles are recommended.

Skin protection

Hand protection

Chemical resistant gloves.

Other

Not available.

Respiratory protection

Chemical respirator with organic dust cartridge.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Refer to Spec Sheet

Physical state

Powder\Crystal.

Form

Powder. Crystalline powder.

Color

Refer to Spec Sheet

Odor

Characteristic.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

125.6 °F (52 °C)

Initial boiling point and boiling range

487.4 °F (253 °C) 1015.7 hPa

262.4 - 271.4 °F (128 - 133 °C) 37.3 hPa

Flash point

> 200.0 °F (> 93.3 °C) Closed Cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

SAFETY DATA SHEET

500788 INDOLE F&F

Revision Date: 12-13-2022

Page 5 of 10

Version # 05

Print Date: 12-13-2022

Vapor pressure 0.03 mm Hg at 25 °C**Vapor density** 4.1**Relative density** Not available.**Solubility(ies)****Solubility (water)** Insoluble**Partition coefficient
(n-octanol/water)** 2.14**Auto-ignition temperature** Not available.**Decomposition temperature** Not available.**Viscosity** Not available.**Other information****Density** 1.22 g/m³ at 25 °C**Explosive properties** Not explosive.**Flammability class** Combustible III B estimated**Molecular formula** C₈-H₇-N**Molecular weight** 117.15 g/mol**Oxidizing properties** Not oxidizing.**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 reactions** No dangerous reaction known under conditions of normal use.**Conditions to avoid** Keep away from heat, sparks and open flame. Avoid temperatures exceeding the flash point. Contact with incompatible materials. Minimize dust generation and accumulation.**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** Irritating to respiratory system.**Skin contact** Toxic in contact with skin. Dust or powder may irritate the skin.**Eye contact** Causes serious eye damage.**Ingestion** Harmful if swallowed.**Symptoms related to the physical, chemical and toxicological characteristics** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes.

Nausea, Headache, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Information on toxicological effects

SAFETY DATA SHEET

500788 INDOLE F&F

Revision Date: 12-13-2022

Page 6 of 10

Version # 05

Print Date: 12-13-2022

Acute toxicity Toxic in contact with skin. Harmful if swallowed.

Product	Species	Test Results
INDOLE (CAS 120-72-9)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	790 mg/kg
<i>Oral</i>		
LD50	Rat	1000 mg/kg

Skin corrosion/irritation Due to partial or complete lack of data the classification is not possible.

Serious eye damage/eye irritation Causes serious eye damage.
Eyes - rabbit - Severe eye irritation - 24 h

Respiratory or skin sensitization

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

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

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.

Carcinogenicity
Carcinogenicity - mouse - Subcutaneous
Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration: Tumors. Leukaemia
Carcinogenicity - mouse - Subcutaneous
Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumor types after systemic administration not seen spontaneously. Knowledge about carcinogenicity is incomplete.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - single exposure Knowledge about health hazard is incomplete.

Specific target organ toxicity - repeated exposure Due to partial or complete lack of data the classification is not possible.

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

12. ECOLOGICAL INFORMATION

Ecotoxicity 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.

Persistence and degradability No data is available on the degradability of this substance.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

2.14

SAFETY DATA SHEET

500788 INDOLE F&F

Revision Date: 12-13-2022

Page 7 of 10

Version # 05

Print Date: 12-13-2022

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 instructions 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.

Local disposal regulations Dispose 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 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.

14. TRANSPORT INFORMATION

ADN

UN number 2811
UN proper shipping name TOXIC SOLID, ORGANIC, N.O.S. (INDOLE)
Transport hazard class(es) 6.1
Subsidiary class(es) -
Packing group III
Environmental hazards Yes
Labels required 6.1

ADR

UN number 2811
UN proper shipping name TOXIC SOLID, ORGANIC, N.O.S. (INDOLE)
Transport hazard class(es) 6.1
Subsidiary class(es) -
Packing group III
Environmental hazards Yes
Labels required 6.1

RID

UN number 2811
UN proper shipping name TOXIC SOLID, ORGANIC, N.O.S. (INDOLE)
Transport hazard class(es) 6.1
Subsidiary class(es) -
Packing Group III
Environmental Hazards Yes
Labels required 6.1
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

DOT

BULK

UN number 2811

SAFETY DATA SHEET

500788 INDOLE F&F

Revision Date: 12-13-2022

Page 8 of 10

Version # 05

Print Date: 12-13-2022

Proper shipping name	TOXIC SOLID, ORGANIC, N.O.S. (INDOLE)
Hazard class	6.1
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Labels required	6.1

DOT

NON-BULK

UN number	2811
Proper shipping name	TOXIC SOLID, ORGANIC, N.O.S. (INDOLE)
Hazard class	6.1
Packing group	III
Environmental hazards	
Marine pollutant	No
Packaging exceptions	153
Packaging non bulk	213
Labels required	6.1

IATA

UN number	2811
UN proper shipping name	TOXIC SOLID, ORGANIC, N.O.S. (INDOLE)
Transport hazard class(es)	6.1
Subsidiary class(es)	-
Packing group	III
Environmental hazards	No
Labels required	6.1

IMDG

UN number	2811
UN proper shipping name	TOXIC SOLID, ORGANIC, N.O.S. (INDOLE)
Transport hazard class(es)	6.1
Subsidiary class(es)	-
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Labels required	6.1
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SAFETY DATA SHEET

500788 INDOLE F&F

Revision Date: 12-13-2022

Page 9 of 10

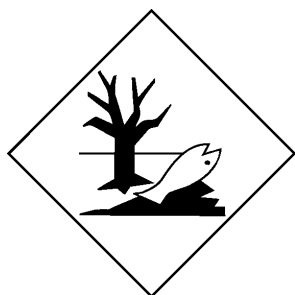
Version # 05

Print Date: 12-13-2022

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.

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
Acute toxicity (any route of exposure)
Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Not regulated.



SAFETY DATA SHEET

500788 INDOLE F&F

Revision Date: 12-13-2022

Page 10 of 10

Version # 05

Print Date: 12-13-2022

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.

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

Issue date 03-21-2018

Revision date 12-13-2022

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: 3
Flammability: 1
Physical hazard: 0

Disclaimer Vigon International, LLC 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.

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