1. IDENTIFICATION

Product Description: BUCHU OIL

CAS # 68650-46-4

FEMA Number 2169

Other means of identification

Vigon Item # 503994

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

2. HAZARD(S) IDENTIFICATION

Physical hazards Flammable liquids Category 3

Health hazards Acute toxicity, oral Category 4

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Sensitization, skin Category 1

Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2

Hazardous to the aquatic environment, long-term hazard Category 2
SAFETY DATA SHEET

503994 BUCHU OIL

Label elements

Signal word
Danger

Hazard statement
Flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Response
IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.

Storage
Store in a well-ventilated place. Keep cool. Store locked up.

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

Hazard(s) not otherwise classified (HNOC)
None known.

Supplemental information
100% of the substance consists of component(s) of unknown acute dermal toxicity. 100% of the substance consists of component(s) of unknown acute inhalation toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUCHU OIL</td>
<td></td>
<td>68650-46-4</td>
<td>100</td>
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</tbody>
</table>

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

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

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.

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 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 standard firefighting procedures and consider the hazards of other involved materials.

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

Collect and dispose of spillage as indicated in section 13 of the SDS.

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. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Prevent product from entering drains.

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. 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.

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

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

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.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Face shield is recommended.

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
Not available.

Initial boiling point and boiling range
Not available.

Flash point
140.0 °F (60.0 °C) Closed Cup

Evaporation rate
Not available.

Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)
Not available.

Explosive limit - upper (%)
Not available.

Vapor pressure
Not available.

Vapor density
Not available.

Relative density
Not available.

Solubility(ies)
Insoluble

Solubility (water)

Partition coefficient
Not available.

(n-octanol/water)

Auto-ignition temperature
Not available.

Decomposition temperature
Not available.

Viscosity
Not available.

Other information

Density
0.92 g/cm3 estimated at 25 °C

Explosive properties
Not explosive.

Flammability class
Combustible IIIA estimated

Molecular formula
Not applicable

Oxidizing properties
Not oxidizing.

Specific gravity
0.92 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 reactions
No dangerous reaction known under conditions of normal use.
Conditions to avoid
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**: Knowledge about health hazard is incomplete.
- **Skin contact**: Causes skin irritation. May cause an allergic skin reaction.
- **Eye contact**: Causes serious eye irritation.
- **Ingestion**: 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. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects
- **Acute toxicity**: May be fatal if swallowed and enters airways.
- **Skin corrosion/irritation**: Causes skin irritation.
- **Serious eye damage/eye irritation**: Causes serious eye irritation.

Respiratory or skin sensitization
- **Respiratory sensitization**: Due to partial or complete lack of data the classification is not possible.
- **Skin sensitization**: May cause an allergic skin reaction.
- **Germ cell mutagenicity**: Due to partial or complete lack of data the classification is not possible.
- **Carcinogenicity**: Due to partial or complete lack of data the classification is not possible.

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

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

Aspiration hazard
May be fatal if swallowed and enters airways.

Further information
Generally recognized as safe (GRAS) for use in flavourings according to the criteria established by the U.S. FDA (21 CFR 170.30)
12. ECOLOGICAL INFORMATION

Ecotoxicity       Toxic to aquatic life with long lasting effects.
Persistence and degradability No data is available on the degradability of this substance.
Bioaccumulative potential No data available.
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 | 1197 |
| UN proper shipping name | EXTRACTS, LIQUID (BUCHU OIL) |
| Transport hazard class(es) | 3 |
| Subsidiary class(es) | - |
| Packing group | III |
| Environmental hazards | Yes |
| Labels required | 3 |

**ADR**

| UN number | 1197 |
| UN proper shipping name | EXTRACTS, LIQUID (BUCHU OIL) |
| Transport hazard class(es) | 3 |
| Subsidiary class(es) | - |
| Packing group | III |
| Environmental hazards | Yes |
| Labels required | 3 |

**RID**

| UN number | 1197 |
| UN proper shipping name | EXTRACTS, LIQUID (BUCHU OIL) |
| Transport hazard class(es) | 3 |
| Subsidiary class(es) | - |
| Packing Group | III |
| Environmental Hazards | Yes |
Labels required: 3

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

DOT
BULK
- UN number: 1169
- Proper shipping name: EXTRACTS, AROMATIC, LIQUID (BUCHU OIL)
- Hazard class: 3
- Packing group: III
- Environmental hazards:
  - Marine pollutant: Yes
- Labels required: 3

DOT
NON-BULK
- Not regulated as dangerous goods.

IATA
- UN number: 1197
- UN proper shipping name: EXTRACTS, LIQUID
- Transport hazard class(es): 3
- Subsidiary class(es): -
- Packing group: III
- Environmental hazards:
  - Marine pollutant: Yes
- Labels required: 3

IMDG
- UN number: 1197
- UN proper shipping name: EXTRACTS, LIQUID (BUCHU OIL)
- Transport hazard class(es): 3
- Subsidiary class(es): -
- Packing group: III
- Environmental hazards:
  - Marine pollutant: Yes
- Labels required: 3
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

ADN; ADR; DOT BULK; IATA; IMDG; RID
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.


- 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**
      - Flammable (gases, aerosols, liquids, or solids)
      - Acute toxicity (any route of exposure)
      - Skin corrosion or irritation
      - Serious eye damage or eye irritation
      - Respiratory or skin sensitization
      - Aspiration hazard

- **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 (SDWA)**
  - Not regulated.
16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Issue date: 09-20-2016
Revision date: 01-27-2023
Version #: 05

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

List of abbreviations:
- ACGIH: American Conference of Governmental Industrial Hygienists.
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
- CAS: Chemical Abstract Service.
- IATA: International Air Transport Association.
- RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
- STEL: Short term exposure limit.
- TWA: Time Weighted Average.

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, and 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: Alternate Trade Names
HAZARD(S) IDENTIFICATION: Hazard statement
HAZARD(S) IDENTIFICATION: Disposal
HAZARD(S) IDENTIFICATION: Prevention
HAZARD(S) IDENTIFICATION: Response
HAZARD(S) IDENTIFICATION: Hazard(s) not otherwise classified (HNOC)
FIRE-FIGHTING MEASURES: Specific methods
ACCIDENTAL RELEASE MEASURES: Methods and materials for containment and cleaning up
EXPOSURE CONTROLS/PERSONAL PROTECTION: Appropriate engineering controls
STABILITY AND REACTIVITY: Possibility of hazardous reactions
Toxicological Information: Toxicological Data
Transport Information: Material Transportation Information
OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION: Reference
s OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION: List of abbreviations