

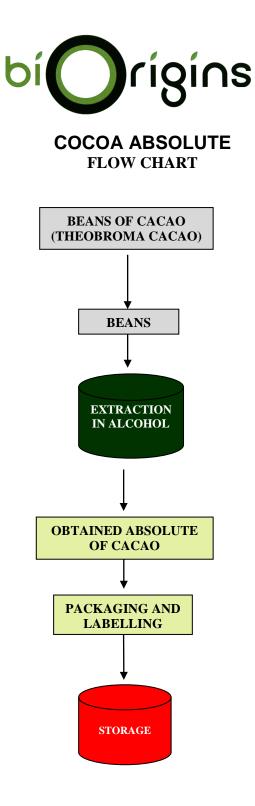
Certificate of Analysis

| PRODUCT DETAILS | | | | |
|-------------------------|--------------------------------|---|----------------|----------|
| Product Name | COCOA ABSOLUTE | | | |
| Product Code | OACOCO | OACOCO | | |
| INCI Name | Theobroma Cacao | | | |
| | | | | |
| | | | | |
| Batch Number | 4336203 | | | |
| Best Before End | September 2021 | | | |
| | | | | |
| Identification | CAS No: 8002-31-1 | | EINECS No: 283 | -480-6 |
| | Alternative Cas: 84649-99-0 | | | |
| PHYSICAL AND CHEMIC | AL CHARACTERISTIC | | | |
| | SPECIFICATION F | RANGE | | RESULTS |
| Appearance | Viscous Liquid | Viscous Liquid | | Conforms |
| Colour | Dark Brown | Dark Brown | | Conforms |
| Odour | Characteristic | Characteristic | | Conforms |
| Relative Density @ 20°c | 1.180 - 1.250 | 1.180 - 1.250 | | 1.1985 |
| Refractive Index @ 20°c | 1.460 - 1.490 | 1.460 - 1.490 | | 1.4696 |
| Flash Point °C | >86° | >86° | | 86 |
| STORAGE AND SHELF LI | FE | | | |
| Storage | Store in tightly closed contai | Store in tightly closed container with minimum headspace in a cool, dark and dry place. | | |

DISCLAIMER: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the Company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitability of such information for his own particular use. Where MADAR make a declaration that allergenic material are not present in any product, this statement is made assuming reasonable levels of detection. It is impossible to guarantee the "absolute absence" of any material. It is the ultimate responsibility of the customer to ensure the safety of the intended final product containing this material, by carrying out additional tests if necessary.

Issue No: 1

03/05/2017





SECTION 1: Identification of the substance/mixture and of the company/undertaking

| 1.1. Product identifier | | | |
|-------------------------------------|---|--|--|
| Product name | COCOA ABSOLUTE | | |
| Product number | OACOCO | | |
| Synonyms; trade names | Theobroma Cacao | | |
| CAS number | 8002-31-1 | | |
| Alternative Cas Number | 84649-99-0 | | |
| EC number | 283-480-6 | | |
| 1.2. Relevant identified uses o | f the substance or mixture and uses advised against | | |
| Identified uses | Industrial, only for professional use | | |
| 1.3. Details of the supplier of the | he safety data sheet | | |
| Supplier | | | |
| | MADAR Corporation Limited | | |
| 19-20 Sandleheath Industrial Estate | | | |
| Fordingbridge | | | |
| | Hampshire | | |
| | SP6 1PA | | |
| | Tel. +44 1425 655555 (Opening Hours 9am - 5pm) | | |
| | e-mail sales@madarcorporation.co.uk | | |

1.4. Emergency telephone number

| SECTION 2: Hazards ident | ification |
|-------------------------------|--------------------|
| 2.1. Classification of the su | bstance or mixture |
| Classification (EC 1272/200 | 08) |
| Physical hazards | Not Classified |
| Health hazards | Not Classified |
| Environmental hazards | Not Classified |
| 2.2. Label elements | |
| EC number | 283-480-6 |
| Hazard statements | NC Not Classified |
| 2.3. Other hazards | |

| SECTION 3: Composition/info | rmation on ingredients | | | |
|---|---|--|--|--|
| 3.1. Substances | | | | |
| Product name | COCOA ABSOLUTE | | | |
| CAS number | 8002-31-1 | | | |
| EC number | 283-480-6 | | | |
| SECTION 4: First aid measure | 9S | | | |
| 4.1. Description of first aid mea | asures | | | |
| Inhalation | Remove person to fresh air and keep comfortable for breathing. Get medical attention if any discomfort continues. | | | |
| Ingestion | Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues. | | | |
| Skin contact | Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues. | | | |
| Eye contact | Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. | | | |
| 4.2. Most important symptoms | and effects, both acute and delayed | | | |
| 4.3. Indication of any immedia | te medical attention and special treatment needed | | | |
| SECTION 5: Firefighting meas | sures | | | |
| 5.1. Extinguishing media | | | | |
| Suitable extinguishing media | Use as appropriate carbon dixoide (CO2), dry chemical or foam | | | |
| Unsuitable extinguishing media | For safety reasons do not use full water jet. | | | |
| 5.2. Special hazards arising fro | om the substance or mixture | | | |
| Hazardous combustion products | | | | |
| 5.3. Advice for firefighters | | | | |
| Special protective equipment for firefighters | Wear full protective clothing | | | |
| SECTION 6: Accidental release | se measures | | | |
| 6.1. Personal precautions, pro | tective equipment and emergency procedures | | | |
| Personal precautions | Ensure adequate ventilation of the working area, evacuate personnel to safe area, wear suitable protective equipment. No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin and eyes. Avoid inhalation of vapours. | | | |
| 6.2. Environmental precaution | <u>s</u> | | | |
| Environmental precautions | Do not discharge into drains or watercourses or onto the ground. | | | |
| 6.3. Methods and material for containment and cleaning up | | | | |
| Methods for cleaning up | Absorb with liquid binding material (e.g sand, diatomaceous earth, acid or universal binding agents). Collect in closed and suitable containers for disposal. Wash spill site after material pick up is complete. | | | |
| 6.4. Reference to other section | ns | | | |
| BiOriair | ns, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK | | | |

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Apply good manufacturing practice and industrial hygiene practices. Keep containers sealed when not in use. Avoid contact with skin and eyes. Avoid inhalation of vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

| Storage precautions | Store in tightly-closed, original container in a dry, cool and well-ventilated place. |
|---------------------|---|
|---------------------|---|

7.3. Specific end use(s)

| SECTION 8: Exposure Controls/personal protection | |
|--|--|
|--|--|

8.1. Control parameters

8.2. Exposure controls

Protective equipment



. . . .

...

| Appropriate engineering controls | Provide eyewash station Provide adequate ventilation. |
|-------------------------------------|--|
| Personal protection | Use personal protection according to Directive 89/686/EEC |
| Eye/face protection | Approved safety goggles. |
| Hand protection | Chemical resistant gloves (PVC) |
| Other skin and body protection | Wear apron or protective clothing in case of contact. |
| Hygiene measures | Good personal hygiene procedures should be implemented. |
| Respiratory protection | Generally unnecessary in a well ventilated area. If ventilation is insufficient, respiratory protection must be worn. |
| Environmental exposure controls | Avoid discharging into drains. |

.

...

SECTION 9: Physical and Chemical Properties

| 9.1. Information on basic physical and chemical properties | | | | |
|--|----------------------|--|--|--|
| Appearance | Viscous liquid. | | | |
| Colour | Dark brown. | | | |
| Odour | Characteristic. | | | |
| Melting point | 15°C | | | |
| Flash point | > 86°C | | | |
| Relative density | 1.180 - 1.250 @ 20°C | | | |
| 9.2. Other information | | | | |
| Refractive index | 1.460 - 1.490 @ 20°C | | | |
| | | | | |

| SECTION 10: Stability | and reactivity | | |
|-------------------------------------|---|--|--|
| 10.1. Reactivity | | | |
| Reactivity | No data available. | | |
| 10.2. Chemical stability | | | |
| Stability | Stable under the prescribed storage conditions. | | |
| 10.3. Possibility of haza | | | |
| Possibility of hazardous | | | |
| reactions | | | |
| 10.4. Conditions to avo | <u>vid</u> | | |
| Conditions to avoid | Avoid heat, flames and other sources of ignition. | | |
| 10.5. Incompatible mat | erials | | |
| 10.6. Hazardous decor | · · · · | | |
| SECTION 11: Toxicolo | gical information | | |
| 11.1. Information on to | xicological effects | | |
| Toxicological effects | No data available. | | |
| SECTION 12: Ecologic | al Information | | |
| Ecotoxicity | No data available. | | |
| 12.1. Toxicity | | | |
| 12.2. Persistence and o | degradability | | |
| 12.3. Bioaccumulative | potential | | |
| 12.4. Mobility in soil | | | |
| 12.5. Results of PBT a | | | |
| 12.6. Other adverse eff | | | |
| SECTION 13: Disposal | l considerations | | |
| 13.1. Waste treatment | methods | | |
| Disposal methods | Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. | | |
| SECTION 14: Transport | rt information | | |
| General | The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID). | | |
| 14.1. UN number | | | |
| Not applicable. | | | |
| 14.2. UN proper shipping name | | | |
| Not applicable. | | | |
| 14.3. Transport hazard class(es) | | | |
| No transport warning sign required. | | | |
| 14.4. Packing group | | | |
| Not applicable. | BiOrigins, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK | | |

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable. Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

| EU legislation | Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). | | | |
|-------------------------------|--|--|--|--|
| Guidance | CHIP for everyone HSG228. | | | |
| 15.2. Chemical safety assess | ment | | | |
| Inventories | | | | |
| US - TSCA | | | | |
| Present. | | | | |
| SECTION 16: Other information | | | | |
| Revision date | 03/05/2017 | | | |

| Revision | 1 |
|------------|------|
| SDS number | 4924 |

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

| | bi | 0 | rígi | ∩s |
|---|----|---|------|----|
| _ | | - | | |

Product Specification

| PRODUCT DETAILS | | | |
|----------------------------|---|--|--|
| Product Name | COCOA ABSOLUTE | COCOA ABSOLUTE | |
| Product Code | OACOCO | OACOCO | |
| INCI Name | Theobroma Cacao | Theobroma Cacao | |
| Country of Origin | Caribbean | | |
| Tariff Number | 33013000 | 33013000 | |
| Natural Status | supplier, that this product is in accordance | We hereby declare, to the best of our knowledge and from information received from our supplier, that this product is in accordance to the requirements of Articles 3 (2) (d) of Regulation (EC) 1334/2008 and therefore can be designated as natural. | |
| Food Grade Status | We confirm, from information received from Regulations and can be used in food. | We confirm, from information received from our supplier, that this product conforms with EU Regulations and can be used in food. | |
| Kosher Certified | Yes | Yes | |
| Halal Certified | No | No | |
| GMO Declaration | | To the best of our knowledge and from information received from our supplier, this product does not derive from genetically modified starting raw material, or additives that are derived from genetically modifed organisms. | |
| Identification | CAS No: 8002-31-1 EINE | CS No: 283-480-6 | |
| | Alternative Cas: 84649-99-0 | | |
| PHYSICAL AND CHEMIC | CAL CHARACTERISTIC | | |
| Appearance | Viscous Liquid | Viscous Liquid | |
| Colour | Dark Brown | | |
| Odour | Characteristic | Characteristic | |
| Relative Density @ 20°c | 1.180 - 1.250 | 1.180 - 1.250 | |
| Refractive Index @ 20°c | 1.460 - 1.490 | 1.460 - 1.490 | |
| Flash Point °C | >86° | >86° | |
| Melting point °C | 15° | 15° | |
| Hydrocarbon content | <1% | <1% | |
| FRAGRANCE ALLERGEN | IS | | |
| None Present | | | |
| FOOD ALLERGENS | | | |
| None Present | | | |
| IFRA | | | |
| None Present | | | |
| STORAGE AND SHELF L | IFE | | |
| Storage | Store in tightly closed container with m | Store in tightly closed container with minimum headspace in a cool, dark and dry place. | |

DISCLAIMER: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the Company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitability of such information for his own particular use. Where MADAR make a declaration that allergenic material are not present in any product, this statement is made assuming reasonable levels of detection. It is impossible to guarantee the "absolute absence" of any material. It is the ultimate responsibility of the customer to ensure the safety of the intended final product containing this material, by carrying out additional tests if necessary.

Issue No: 1

03/05/2017