

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/24/2018

Reviewed on 03/31/2018

### 1 Identification

- **Product identifier**
- **Trade name: Butyl acetate natural**
- **Product number:** 1156
- **CAS Number:**  
123-86-4
- **EC number:**  
204-658-1
- **Index number:**  
607-025-00-1
- **Application of the substance / the mixture** Food flavorings

- **Details of the supplier of the safety data sheet**

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- **Manufacturer/Supplier:**

Advanced Biotech  
 10 Taft Road  
 Totowa, NJ 07512 USA

- **Information department:**

Product Safety Department  
 productsafety@adv-bio.com

- **Emergency telephone number:**

1(800)535-5053 (Info Trac)  
 1(352)323-3500 (International)  
 During normal business hours: 1(973)339-6242

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS07

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements** Harmful in contact with skin or if inhaled.

(Continued on page 2)

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/24/2018

Reviewed on 03/31/2018

**Trade name: Butyl acetate natural**

(Continuation of page 1)

· **GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**

n-butyl acetate

· **Hazard statements**

H225 Highly flammable liquid and vapor.

H336 May cause drowsiness or dizziness.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 0

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



HEALTH 0 Health = 0

FIRE 3 Fire = 3

REACTIVITY 0 Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

US

(Continued on page 3)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 08/24/2018

Reviewed on 03/31/2018

**Trade name: Butyl acetate natural**

(Continuation of page 2)

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
123-86-4 n-butyl acetate
- **Identification number(s)**
- **EC number:** 204-658-1
- **Index number:** 607-025-00-1

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.
- **Additional information**  
Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.

(Continued on page 4)

**Safety Data Sheet**  
 acc. to OSHA HCS

Printing date 08/24/2018

Reviewed on 03/31/2018

**Trade name: Butyl acetate natural**

(Continuation of page 3)

See Section 8 for information on personal protection equipment.  
 See Section 13 for disposal information.

**· Protective Action Criteria for Chemicals**

**· PAC-1:**

5 ppm

**· PAC-2:**

200 ppm

**· PAC-3:**

3000\* ppm

**7 Handling and storage**

**· Handling:**

**· Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.  
 Prevent formation of aerosols.

**· Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.  
 Protect against electrostatic charges.

**· Conditions for safe storage, including any incompatibilities**

**· Storage:**

**· Requirements to be met by storerooms and receptacles:** Store in a cool location.

**· Information about storage in one common storage facility:** Not required.

**· Further information about storage conditions:**

Keep receptacle tightly sealed.  
 Store in cool, dry conditions in well sealed receptacles.

**· Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

**· Additional information about design of technical systems:** No further data; see item 7.

**· Control parameters**

**· Components with limit values that require monitoring at the workplace:**

**CAS: 123-86-4 n-butyl acetate**

PEL Long-term value: 710 mg/m<sup>3</sup>, 150 ppm

REL Short-term value: 950 mg/m<sup>3</sup>, 200 ppm  
 Long-term value: 710 mg/m<sup>3</sup>, 150 ppm

TLV Short-term value: 712 mg/m<sup>3</sup>, 150 ppm  
 Long-term value: 238 mg/m<sup>3</sup>, 50 ppm

**· Additional information:** The lists that were valid during the creation were used as a basis.

(Continued on page 5)

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/24/2018

Reviewed on 03/31/2018

**Trade name: Butyl acetate natural**

(Continuation of page 4)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.
- **Breathing equipment:**  
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
 The exact break through time has to be determined by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

- |                          |                                    |
|--------------------------|------------------------------------|
| · <b>Form:</b>           | Liquid                             |
| · <b>Color:</b>          | According to product specification |
| · <b>Odor:</b>           | According to product specification |
| · <b>Odor threshold:</b> | Not determined.                    |

· <b>pH-value:</b>	5
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· **Change in condition**

- |                                       |                             |
|---------------------------------------|-----------------------------|
| · <b>Melting point/Melting range:</b> | -76 °C (-104.8 °F)          |
| · <b>Boiling point/Boiling range:</b> | 124-128 °C (255.2-262.4 °F) |

(Continued on page 6)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 08/24/2018

Reviewed on 03/31/2018

**Trade name: Butyl acetate natural**

(Continuation of page 5)

· <b>Flash point:</b>	23 °C (73.4 °F)
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	370 °C (698 °F)
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Not determined.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	1.2 Vol %
<b>Upper:</b>	7.5 Vol %
· <b>Vapor pressure at 20 °C (68 °F):</b>	10.7 hPa (8 mm Hg)
· <b>Density at 20 °C (68 °F):</b>	0.881 g/cm <sup>3</sup> (7.35195 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water at 20 °C (68 °F):</b>	5 g/l
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic at 20 °C (68 °F):</b>	0.7 mPas
<b>Kinematic:</b>	Not determined.
<b>Organic solvents:</b>	100.0 %
<b>VOC content:</b>	100.00 %
	881.0 g/l / 7.35 lb/gal
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

(Continued on page 7)

**Safety Data Sheet**  
 acc. to OSHA HCS

Printing date 08/24/2018

Reviewed on 03/31/2018

Trade name: Butyl acetate natural

(Continuation of page 6)

**11 Toxicological information**

- Information on toxicological effects
- Acute toxicity:

· LD/LC50 values that are relevant for classification:

**ATE (Acute Toxicity Estimate)**

Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>21 mg/l (rat)

**CAS: 123-86-4 n-butyl acetate**

Oral	LD50	13,100 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>21 mg/l (rat)

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

**12 Ecological information**

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment

- PBT: Not applicable.
- vPvB: Not applicable.

(Continued on page 8)

**Safety Data Sheet**  
 acc. to OSHA HCS

Printing date 08/24/2018

Reviewed on 03/31/2018

Trade name: Butyl acetate natural

· **Other adverse effects** No further relevant information available.

(Continuation of page 7)

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:**  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· UN-Number	
· DOT, ADR, IMDG, IATA	UN1123
· UN proper shipping name	
· DOT	Butyl acetates
· ADR	1123 Butyl acetates
· IMDG, IATA	BUTYL ACETATES

· Transport hazard class(es)

· DOT



· Class	3 Flammable liquids
· Label	3

· ADR



· Class	3 (F1) Flammable liquids
· Label	3

· IMDG, IATA



· Class	3 Flammable liquids
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(Continued on page 9)



**Safety Data Sheet**  
 acc. to OSHA HCS

Printing date 08/24/2018

Reviewed on 03/31/2018

**Trade name: Butyl acetate natural**

(Continuation of page 8)

· Label	3
· Packing group · DOT, ADR, IMDG, IATA	III
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category	Warning: Flammable liquids 33 F-E,S-D B
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information: · DOT · Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· ADR · Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1123 BUTYL ACETATES, 3, III

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

(Continued on page 10)

**Safety Data Sheet**  
 acc. to OSHA HCS

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Reviewed on 03/31/2018

**Trade name: Butyl acetate natural**

(Continuation of page 9)

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**

n-butyl acetate

· **Hazard statements**

H225 Highly flammable liquid and vapor.

H336 May cause drowsiness or dizziness.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

US

(Continued on page 11)

## Safety Data Sheet acc. to OSHA HCS

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**Trade name: Butyl acetate natural**

(Continuation of page 10)

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product Safety Department

- **Contact:**

Product Safety Department  
 productsafety@adv-bio.com

- **Date of preparation / last revision** 08/24/2018 / 1

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3