SAFETY DATA SHEET
Butyl acetate

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

Date issued 04.06.2014

1.1. Product identifier
Product name Butyl acetate
Chemical name n-butylacetet
Synonyms n-butylacetat
REACH Reg. No. 01-2119485493-29-0000
CAS no. 123-86-4
Index no. 607-025-00-1
Article no. 10000000

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/preparation For the preparation of paints and as a solvent. General purpose cleaner.

1.3. Details of the supplier of the safety data sheet
Manufacturer
Company name Fred Holmberg & Co AB
Office address Geijersgatan 8
Postal address Box 60056
Postcode S-216 10
City Limhamn
Country Sweden
Tel +46 (0)40 15 79 20
Fax +46 (0)40 16 22 95
E-mail info@holmberg.se
Website http://www.holmberg.se/en/

1.4. Emergency telephone number
Emergency telephone 112 (Europe)

SECTION 2: Hazards identification

2.1. Classification of substance or mixture
Classification according to 67/548/EEC or 1999/45/EC
R10,R66,R67

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
STOT SE3;H336;
Flam. Liq. 3;H226;

2.2. Label elements
Hazard Pictograms (CLP)

Signal word Warning
Hazard statements H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container to

Supplemental label information

EUH 066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

Other hazards

Not known.

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Classification</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butyl acetate</td>
<td>CAS no.: 123-86-4</td>
<td>R10</td>
<td>100 %</td>
</tr>
<tr>
<td></td>
<td>EC no.: 204-658-1</td>
<td>R66</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index no.: 607-025-00-1</td>
<td>R67</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Synonyms: Butyl acetate</td>
<td>Flam. Liq. 3; H226</td>
<td>STOT SE 3; H336</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Move the exposed person to fresh air at once. Place unconscious person on the side in the recovery position and ensure breathing. If respiratory problems, artificial respiration/oxygen. Get medical attention if any discomfort continues.

Skin contact
Remove contaminated clothes and rinse skin thoroughly with water.

Eye contact
Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

Ingestion
NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Do not induce vomiting. Rinse mouth with water. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Information for health personnel
Treat Symptomatically. Do not give victim anything to drink if he is unconscious.

4.3. Indication of any immediate medical attention and special treatment needed

Specific details on antidotes
No recommendation given.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards
FLAMMABLE. Solvent vapours may form explosive mixtures with air.
5.3. Advice for firefighters

Fire fighting procedures

No specific fire fighting procedure given.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures

Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Ventilate well. Stop leak if possible without risk. Avoid contact with skin and eyes. Do not breathe vapour. For personal protection, see section 8.

6.2. Environmental precautions

Environmental precautionary measures

Avoid discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment.

6.3. Methods and material for containment and cleaning up

Cleaning method

Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4. Reference to other sections

Other instructions

Information om exponering / personligt skydd och avfallshantering finns i avsnitt 8 och 13. (Information regarding exposure / personal protection and disposal, see section 8 and 13).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling

Keep away from heat, sparks and open flame. Take precautionary measures against static discharges. Mechanical ventilation may be required.

Protective Safety Measures

Advice on general occupational hygiene

Provide easy access to water supply and eye wash facilities.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Keep containers tightly closed. Keep away from heat, sparks and open flame.

Ground container and transfer equipment to eliminate static electric sparks.

Store in a cool and well-ventilated place. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Flammable/combustible - Keep away from oxidisers, heat and flames.

7.3. Specific end use(s)

Specific use(s)

Not entered.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Value</th>
<th>TWA Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butyl acetate</td>
<td>CAS no.: 123-86-4</td>
<td>8-hour TWA: 150 ppm</td>
<td>2011</td>
</tr>
<tr>
<td></td>
<td>EC no.: 204-658-1</td>
<td>8-hour TWA: 724 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index no.: 607-025-00-1</td>
<td>15 min.: 200 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Synonyms: Butyl acetate</td>
<td>15 min.: 966 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Other Information about threshold limit values

Norske grenseverdier; FOR-2011-12-06-1358 vedlegg 1.

Butylacetat (alle isomerer): 8 t.: 75ppm, 355 mg/m³ (2003)

DNEL / PNEC

Method of testing

Contents
Butyl acetate

DNEL
Group: Worker
Exposure route: Inhalation
Exposure frequency: Long term (repeated)
Type of effect: Systemic effect
Value: 48 mg/m³

DNEL
Group: Worker
Exposure route: Dermal
Exposure frequency: Long term (repeated)
Type of effect: Systemic effect
Value: 7 mg/kg bw/day

DNEL
Group: Consumer
Exposure route: Dermal
Exposure frequency: Long term (repeated)
Type of effect: Systemic effect
Value: 3.4 mg/kg bw/day

DNEL
Group: Consumer
Exposure route: Inhalation
Exposure frequency: Long term (repeated)
Type of effect: Systemic effect
Value: 12 mg/m³

DNEL
Group: Consumer
Exposure route: Oral
Exposure frequency: Long term (repeated)
Type of effect: Systemic effect
Value: 3.4 mg/kg bw/day

PNEC
Exposure route: Water
Value: 0.18 mg/l
Remarks: freshwater

PNEC
Exposure route: Water
Value: 0.018 mg/l
Remarks: marine water

PNEC
Exposure route: Water
Value: 0.36 mg/l
Remarks: intermittent releases

PNEC
Exposure route: Sediment
Value: 0.981 mg/kg dw
Remarks: (fresh water)

PNEC
Exposure route: Sediment
Value: 0.0981 mg/kg dw
Remarks: (marine water)

PNEC
Exposure route: Soil
Value: 0.0903 mg/kg dw

PNEC
Exposure route: Sewage treatment plant STP
Value: 35.6 mg/l

8.2. Exposure controls
Occupational exposure limits
Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours. Protective gloves and goggles are recommended. Provide eyewash, quick drench.

Safety signs

Respiratory protection
Respiratory protection must be used if air contamination exceeds acceptable
Hand protection
Hand protection
Use protective gloves. Chemical resistant gloves required for prolonged or repeated contact. Gloves of nitrile rubber, PVA or Viton are recommended.

Eye / face protection
Eye protection
Use safety goggles or face shield in case of splash risk.

Skin protection
Skin protection (except hands)
Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene / Environmental
Specific hygiene measures
Wash hands after contact.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Colourless.</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic.</td>
</tr>
<tr>
<td>Comments, pH (as supplied)</td>
<td>Not relevant.</td>
</tr>
<tr>
<td>Melting point/melting range</td>
<td>Value: &lt; -98 °C</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>Value: 126 °C @ 101,3 kPa</td>
</tr>
<tr>
<td>Flash point</td>
<td>Value: 27 °C</td>
</tr>
<tr>
<td>Explosion limit</td>
<td>Method of testing: EU Method A.9 (closed cup)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Value: 15 kPa</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Value: 4,0</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Value: 880 kg/m3</td>
</tr>
<tr>
<td>Solubility description</td>
<td>Soluble in: Organic solvents.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>5,3 g/cl @ 20 °C</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Value: 2,3\n</td>
</tr>
<tr>
<td>Spontaneous combustability</td>
<td>Value: 415 °C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Value: 0,381 mPas</td>
</tr>
<tr>
<td>Test temperature: 20 °C</td>
<td></td>
</tr>
</tbody>
</table>

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity
Heating may cause a fire.

10.2. Chemical stability
Stability
Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions
Not known.

10.4. Conditions to avoid
Conditions to avoid
Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials
Materials to avoid
Avoid contact with oxidising agents (e.g. nitric acid, peroxides and chromates). Avoid alkalis, strong acids and heat. Flammable/combustible material.

10.6. Hazardous decomposition products
SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information:

Other toxicological data
Acute Toxicity (Oral LD50): mg/kg (oral rat) 10760
Acute Toxicity (Dermal LD50): mg/kg Rabbit > 14000
Acute Toxicity (Inhalation LC50): Rat 4h 9,6 mg/l

Potential acute effects

Inhalation
In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea. Icke klassificerad som aspirationstoxisk (Not classified as asp. tox.)

Skin contact
Prolonged or frequent contact may cause redness, itching, eczema and skin cracking. Defats the skin.

Eye contact
May cause temporary eye irritation.

Ingestion
Ingestion of large amounts may cause unconsciousness. However, ingestion may cause nausea, headache, dizziness and intoxication. Ingestion may cause irritation of the gastrointestinal tract, vomiting and diarrhoea. May cause irritation to the mouth and throat.

Delayed effects / repeated exposure

Sensitisation
Not known.

Chronic effects
None known.

Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity
None.

Mutagenicity
None.

Teratogenic properties
None.

Reproductive toxicity
None.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic, fish
Value: 18 mg/l
Method of testing: LC50
Fish, species: Pimephales promelas
Duration: 96h

Acute aquatic, algae
Value: 674,7 mg/l
Method of testing: IC50
Algae, species: Scenedesmus subspicatus
Duration: 72h

Acute aquatic, Daphnia
Value: 44 mg/l
Method of testing: EC50
Daphnia, species: D. sp
Duration: 48h

Other ecotoxicological information, crustaceans
Long-term study. NOEC (Daphnia magna): 23 mg/l
Exposure time: 21 days

12.2. Persistence and degradability

Degradation half life
Readily biodegradable (OECD 301D, 98% after 28 days).

Comments, BOD
BOD5/COD: >0,5

12.3. Bioaccumulative potential

Bioaccumulative potential
Will not bio-accumulate.

Bioconcentration factor (BCF)
Value: 15
Method of testing: BCF

Comments to bioaccumulation
Log Kow: 1,81
12.4. Mobility in soil

Mobility
The product is water soluble and may spread in water systems.

Surface tension
Value: 61.3 mN/m @ 20°C

12.5. Results of PBT and vPvB assessment

PBT assessment results
This substance is not classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects / Remarks
None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal
Confirm disposal procedures with environmental engineer and local regulations. Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point. Liquid components can be disposed of by incineration.

Product classified as hazardous waste
Yes

Packaging classified as hazardous waste
Yes

SECTION 14: Transport information

14.1. UN number

ADR 1123
RID 1123
IMDG 1123
ICAO/IATA 1123

14.2. UN proper shipping name

ADR BUTYL ACETATES
RID BUTYL ACETATES
IMDG BUTYL ACETATES
ICAO/IATA BUTYL ACETATES

14.3. Transport hazard class(es)

ADR 3
Hazard no. 30
RID 3
ADN 33
IMDG 3
ICAO/IATA 3

14.4. Packing group

ADR III
RID III
IMDG III
ICAO/IATA III

14.5. Environmental hazards

Comments Not relevant.

14.6. Special precautions for user

EmS F-E, S-D

14.7. Transport in bulk according to 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
Other Label Information


Legislation and regulations

Dangerous Substance Directive 67/548/EEC.

15.2. Chemical safety assessment

SECTION 16: Other information

R-phrases
R10 Flammable.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

S-phrases
S2 Keep out of the reach of children.
S7 Keep container tightly closed.
S16 Keep away from sources of ignition - No smoking.
S25 Avoid contact with eyes.

Classification according to
Regulation (EC) No 1272/2008
[CLP/GHS]
Flam. Liq. 3; H226;
STOT SE3; H336;

List of relevant R-phrases (under headings 2 and 3).
R67 Vapours may cause drowsiness and dizziness.
R10 Flammable.
R66 Repeated exposure may cause skin dryness or cracking.

List of relevant H-phrases (Section 2 and 3).
H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.

Responsible for safety data sheet
Fred Holmberg & Co AB