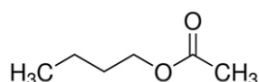


### MATERIAL SAFETY DATA SHEET (MSDS)

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

##### 1.1. Product identifier

Product form : Substance  
:  
EC no : 204-658-1  
CAS No : 123-86-4  
Product code : 00060  
Chemical structure :



##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

###### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

###### 1.2.2. Uses advised against

No additional information available

##### 1.3. Details of the supplier of the safety data sheet

SPAN LAB  
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)  
401208 Mumbai - INDIA  
PH: +91 9820509929  
[info@spanlab.in](mailto:info@spanlab.in) [www.spanlab.in](http://www.spanlab.in)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, H226  
Category 3  
Specific target organ H336  
toxicity — Single  
exposure, Category 3,  
Narcosis

Full text of classification categories and H statements : see section 16

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Classification according to Directive 67/548/EEC or 1999/45/EC

F; R10-66-67

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS07

|                                |                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------|
| Signal word (CLP)              | : Warning                                                                        |
| Hazard statements (CLP)        | : H226 - Flammable liquid and vapour<br>H336 - May cause drowsiness or dizziness |
| Precautionary statements (CLP) | : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking       |
| EUH phrases                    | : EUH066 - Repeated exposure may cause skin dryness or cracking                  |

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

|        |                              |
|--------|------------------------------|
| Name   | : n-BUTYL ACETATE Extra Pure |
| CAS No | : 123-86-4                   |
| EC no  | : 204-658-1                  |

Full text of R- and H-phrases: see section 16

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                       |                                                                                                                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| First-aid measures after inhalation   | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.                              |
| First-aid measures after skin contact | : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Repeated exposure may cause skin dryness or cracking.                                     |
| First-aid measures after eye contact  | : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion    | : Rinse mouth out with water. If you feel unwell, seek medical advice.                                                                                                           |

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

Symptoms/injuries after inhalation : May cause drowsiness or dizziness.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>).  
Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.  
Explosion hazard : May form flammable/explosive vapour-air mixture.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Avoid breathing dust/fume/gas/mist/vapours/spray.  
Emergency procedures : Stop release.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spillage. Take up liquid spill into absorbent material, e.g.: sand. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.  
Precautions for safe handling : No naked lights. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.  
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.  
Storage conditions : Keep container tightly closed.  
Incompatible materials : Heat sources.

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### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

|                          |                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------|
| Hand protection          | : protective gloves                                                                                     |
| Eye protection           | : Chemical goggles or safety glasses                                                                    |
| Skin and body protection | : Wear suitable protective clothing                                                                     |
| Respiratory protection   | : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| Physical state                             | : Liquid                                   |
| Molecular mass                             | : 116.16 g/mol                             |
| Colour                                     | : Clear Colorless.                         |
| Odour                                      | : mild, fruity odor.                       |
| Odour threshold                            | : No data available                        |
| pH                                         | : No data available                        |
| Relative evaporation rate (butylacetate=1) | : 1                                        |
| Melting point                              | : -78 °C                                   |
| Freezing point                             | : No data available                        |
| Boiling point                              | : 124 - 126                                |
| Flash point                                | : 23 °C                                    |
| Auto-ignition temperature                  | : No data available                        |
| Decomposition temperature                  | : No data available                        |
| Flammability (solid, gas)                  | : Flammable<br>Flammable liquid and vapour |
| Vapour pressure                            | : 15 at 25C                                |
| Relative vapour density at 20 °C           | : 4.01                                     |
| Relative density                           | : No data available                        |
| Density                                    | : 0.8822 g/cm <sup>3</sup>                 |
| Relative gas density                       | : 0.88                                     |
| Solubility                                 | : Water: 0.7 % @ 20C                       |

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|                      |                       |
|----------------------|-----------------------|
| Log Pow              | : 1.82                |
| Viscosity, kinematic | : No data available   |
| Viscosity, dynamic   | : No data available   |
| Explosive properties | : No data available   |
| Oxidising properties | : No data available   |
| Explosive limits     | : 0.017 - 0.076 vol % |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Not classified

Additional information : Repeated exposure may cause skin dryness or cracking

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

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### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

| n-BUTYL ACETATE Extra Pure (123-86-4) |      |
|---------------------------------------|------|
| Log Pow                               | 1.82 |

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...

Additional information : Handle empty containers with care because residual vapours are flammable.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : 1123

UN-No. (IMDG) : 1123

UN-No.(IATA) : 1123

UN-No.(ADN) : 1123

UN-No. (RID) : 1123

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : BUTYL ACETATES

Proper Shipping Name (IMDG) : BUTYL ACETATES

Proper Shipping Name (IATA) : BUTYL ACETATES

Proper Shipping Name (ADN) : BUTYL ACETATES

Proper Shipping Name (RID) : BUTYL ACETATES

Transport document description (ADR) : UN 1123 BUTYL ACETATES, 3, III, (D/E)

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Transport document description (IMDG) : UN 1123 BUTYL ACETATES, 3, III  
Transport document description (IATA) : UN 1123 BUTYL ACETATES, 3, III  
Transport document description (ADN) : UN 1123 BUTYL ACETATES, 3, III  
Transport document description (RID) : UN 1123 BUTYL ACETATES, 3, III

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 3  
Danger labels (ADR) : 3



#### IMDG

Transport hazard class(es) (IMDG) : 3  
Danger labels (IMDG) : 3



#### IATA

Transport hazard class(es) (IATA) : 3  
Hazard labels (IATA) : 3



#### ADN

Transport hazard class(es) (ADN) : 3  
Danger labels (ADN) : 3



#### RID

Transport hazard class(es) (RID) : 3  
Danger labels (RID) : 3



### 14.4. Packing group

Packing group (ADR) : III

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|                      |       |
|----------------------|-------|
| Packing group (IMDG) | : III |
| Packing group (IATA) | : III |
| Packing group (ADN)  | : III |
| Packing group (RID)  | : III |

### 14.5. Environmental hazards

|                               |                                          |
|-------------------------------|------------------------------------------|
| Dangerous for the environment | : No                                     |
| Marine pollutant              | : No                                     |
| Other information             | : No supplementary information available |

### 14.6. Special precautions for user

#### - Overland transport

|                                                           |                                                                                       |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------|
| Classification code (ADR)                                 | : F1                                                                                  |
| Limited quantities (ADR)                                  | : 5L                                                                                  |
| Excepted quantities (ADR)                                 | : E1                                                                                  |
| Packing instructions (ADR)                                | : P001, IBC03, LP01, R001                                                             |
| Mixed packing provisions (ADR)                            | : MP19                                                                                |
| Portable tank and bulk container instructions (ADR)       | : T2                                                                                  |
| Portable tank and bulk container special provisions (ADR) | : TP1                                                                                 |
| Tank code (ADR)                                           | : LGBF                                                                                |
| Vehicle for tank carriage                                 | : FL                                                                                  |
| Transport category (ADR)                                  | : 3                                                                                   |
| Special provisions for carriage - Packages (ADR)          | : V12                                                                                 |
| Special provisions for carriage - Operation (ADR)         | : S2                                                                                  |
| Hazard identification number (Kemler No.)                 | : 30                                                                                  |
| Orange plates                                             | :  |
| Tunnel restriction code (ADR)                             | : D/E                                                                                 |
| EAC code                                                  | : 3YE                                                                                 |

#### - Transport by sea

|                                 |              |
|---------------------------------|--------------|
| Special provision (IMDG)        | : 223        |
| Limited quantities (IMDG)       | : 5 L        |
| Excepted quantities (IMDG)      | : E1         |
| Packing instructions (IMDG)     | : P001, LP01 |
| IBC packing instructions (IMDG) | : IBC03      |
| Tank instructions (IMDG)        | : T2         |
| Tank special provisions (IMDG)  | : TP1        |
| EmS-No. (Fire)                  | : F-E        |
| EmS-No. (Spillage)              | : S-D        |
| Stowage category (IMDG)         | : A          |
| MFAG-No                         | : 129        |

#### - Air transport

|                                              |        |
|----------------------------------------------|--------|
| PCA Excepted quantities (IATA)               | : E1   |
| PCA Limited quantities (IATA)                | : Y344 |
| PCA limited quantity max net quantity (IATA) | : 10L  |
| PCA packing instructions (IATA)              | : 355  |



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|                                 |        |
|---------------------------------|--------|
| PCA max net quantity (IATA)     | : 60L  |
| CAO packing instructions (IATA) | : 366  |
| CAO max net quantity (IATA)     | : 220L |
| Special provision (IATA)        | : A3   |
| ERG code (IATA)                 | : 3L   |

### - Inland waterway transport

|                                   |             |
|-----------------------------------|-------------|
| Classification code (ADN)         | : F1        |
| Limited quantities (ADN)          | : 5 L       |
| Excepted quantities (ADN)         | : E1        |
| Carriage permitted (ADN)          | : T         |
| Equipment required (ADN)          | : PP, EX, A |
| Ventilation (ADN)                 | : VE01      |
| Number of blue cones/lights (ADN) | : 0         |

### - Rail transport

|                                                           |                           |
|-----------------------------------------------------------|---------------------------|
| Classification code (RID)                                 | : F1                      |
| Limited quantities (RID)                                  | : 5L                      |
| Excepted quantities (RID)                                 | : E1                      |
| Packing instructions (RID)                                | : P001, IBC03, LP01, R001 |
| Mixed packing provisions (RID)                            | : MP19                    |
| Portable tank and bulk container instructions (RID)       | : T2                      |
| Portable tank and bulk container special provisions (RID) | : TP1                     |
| Tank codes for RID tanks (RID)                            | : LGBF                    |
| Transport category (RID)                                  | : 3                       |
| Special provisions for carriage – Packages (RID)          | : W12                     |
| Colis express (express parcels) (RID)                     | : CE4                     |
| Hazard identification number (RID)                        | : 30                      |

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

n-BUTYLACETATE Extra Pure is not on the REACH Candidate List

n-BUTYLACETATE Extra Pure is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 2; WGK No 42)

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12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

### Denmark

Class for fire hazard : Class II-1

Store unit : 5 liter

Classification remarks : R10 <H226;H336>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

|              |                                                                        |
|--------------|------------------------------------------------------------------------|
| Flam. Liq. 3 | Flammable liquids, Category 3                                          |
| STOT SE 3    | Specific target organ toxicity — Single exposure, Category 3, Narcosis |
| H226         | Flammable liquid and vapour                                            |
| H336         | May cause drowsiness or dizziness                                      |
| EUH066       | Repeated exposure may cause skin dryness or cracking                   |
| R10          | Flammable                                                              |
| R66          | Repeated exposure may cause skin dryness or cracking                   |
| R67          | Vapours may cause drowsiness and dizziness                             |
| F            | Highly flammable                                                       |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*