



MATERIAL SAFETY DATA SHEET

according to regulation (EG)Nr. 1907/2006

Celanese

Acetyl Intermediates

MSDS NO.:80015

n-Butyl Acetate , EU/EN

Revision Number : 8.01

Revision Date: Sep.18.2013

Issuing Date: Sep.18.2013 ***

Section 1 - Chemical Product and Company Identification

1.1. Product identifier

Product name : **n-Butyl acetate**

REACH Registration Number

01-2119485493-29-0001 1.2.

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

Identified uses

Solvent

Uses advised against

None known

1.3. Contact

: **PT.Pancasakti Putra Kencana**

Address

: Ruko Boulevard Taman Tekno Blok E No.10-11,BSD Sektor XI Serpong,
Tangerang - Indonesia

Website

: www.pancasakti.co.id

Email

: sales@pancasakti.co.id

For information

: Telp: +62-21- 7588 0205(Hunting) , fax:+62-21-7588 0198

Emergency Telephone

: +62-21-7588 0205(Hunting)

1.4. Details of the supplier of the safety data sheet

Celanese Chemicals Europe GmbH

Frankfurter Str. 111 D-61476 Kronberg/Ts.

Germany

Product Information

HazCom@Celanese.com

1.5. Emergency telephone number

CHEMTREC: +1 703 527 3887 (Collect calls accepted)

+49 (0)69-305 6418

In USA, call 800 424 9300

Outside USA, call +1 703 527 3887, collect calls accepted***



Section 2 - Composition, Information on Ingredients

Chemical characterization Acetic acid n-butyl ester

- 2.1. Substances** Details provided in the tables below
2.2. Mixtures not applicable

Components	CAS-No	EC-No	Identification Number	Percent %
n-Butyl acetate	123-86-4	204-658-1	607-025-00-1	min 99.5

Classification according to Regulations 67/548/EEC and 1272/2008/EC (CLP)

Components	67/548/EEC	1272/2008/EC (CLP)	Hazard Statements
n-Butyl acetate	R10 R66 R67	Flammable liquid - Category 3 STOT SE - Category 3	H226 H336 EUH066

Section 3 - Hazards Identification

3.1. Classification of the substance or mixture

Classification according to Regulation 1272/2008/EC (CLP)

Basis for Classification This substance is classified based on Directive 1272/2008/EC and its amendments (CLP Regulation, GHS).

Classification

Hazards	Category
Flammable liquid	Category 3
Specific target organ systemic toxicity (single exposure)	Category 3

Classification and labelling according to Directive 67/548/EWG or 1999/45/EC

Basis for Classification This substance is classified and labelled according to Annex I of Directive 67/548/EEC, as amended

3.2. Label elements Not required

Symbol(s)



Signal Word

Warning

Hazard Statements

H226 - Flammable liquid and vapor
 H336 - May cause drowsiness or dizziness



EC Hazards	EUH066 - Repeated exposure may cause skin dryness or cracking
Precautionary Statements	P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
R-Phrase(s)	P312 - Call a POISON CENTER or doctor/ physician if you feel unwell R10 - Flammable. R66 - Repeated exposure may cause skin dryness or cracking. R67 - Vapors may cause drowsiness and dizziness.
S-Phrase(s)	S25 - Avoid contact with eyes
3.3 Other Hazards	The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII

Section 4 - First Aid Measures

4.1. Description of first aid measures

General Information	Remove contaminated, soaked clothing immediately and dispose of safely. Pay attention to own protection. In any case show the physician the Safety Data Sheet.
Inhalation	Keep at rest. Move to fresh air. Call a physician immediately.
Skin	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Eyes	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Ingestion	Rinse with plenty of water. If swallowed, do not induce vomiting - seek medical advice.

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

Main symptoms	Vapours may cause irritation to the eyes, respiratory system and the skin, Inhalation of high vapour concentrations can cause CNS-depression and narcosis.
----------------------	--

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

Treat symptomatically. In case of lung irritation first treatment with dexametason aerosol (spray). In case of choking: administration of activated charcoal and a saline laxative agent.. In the case of absorption of large volumes, use gastroscopy with suction cleaning.

Section 5 - Firefighting Measures

5.1. Extinguishing media

Suitable extinguishing media

Foam, Dry chemical, Carbon dioxide (CO₂)

Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Under conditions giving incomplete combustion, hazardous gases produced may consist of
Carbon monoxide
Carbon dioxide (CO₂)
Combustion gases of organic materials must in principle be graded as inhalation poisons
Vapors are heavier than air and may spread along floors



5.3. Advice for firefighters

Special protective equipment for fire-fighters

self-contained breathing apparatus (EN 133).

Environmental precautions

Water used to fight fire runoff can cause environmental damage.. Dike and collect water used to fight fire..

Other Information

Cool containers / tanks with water spray.

Section 6 - Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with the skin and the eyes. Keep away from heat and sources of ignition. Provide adequate ventilation.

6.2. Environmental precautions

Prevent further leakage or spillage. Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Dispose of in accordance with local regulations.

6.4. Reference to other sections

Consult trained personnel Consider the information for "Personal Protection" in chapter 8 of this Safety Data Sheet

Section 7 - Handling and Storage

7.1. Precautions for safe handling

Hygiene measures

When using, do not eat, drink or smoke Take off all contaminated clothing immediately Wash hands before breaks and immediately after handling the product

Advice on safe handling

Provide sufficient air exchange and/or exhaust in work rooms.

Incompatible products

Keep away from:., strong acids, peroxides, oxidizing agents, amines

Protection - fire and explosion:

Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge. Ground and bond containers when transferring material. In case of fire, emergency cooling with water spray should be available.

Reduce the release of the substance or mixture to the environment

See Section 8: Environmental exposure controls

Temperature class

T2

7.2. Conditions for safe storage, including any incompatibilities

Material storage

Keep in a dry, cool and well-ventilated place.

Incompatible products

Keep away from:., strong acids, peroxides, oxidizing agents, amines

Technical measures/Storage conditions

Keep tightly closed in a dry, cool and well-ventilated place. Handle an open container with care



German storage class

3A: Flammable liquids

7.3. Specific end use(s)

None known

Section 8 - Exposure Controls, Personal Protection

8.1. Control parameters

EC Exposure Limit Values

No exposure limits established.

DNELs

Acute - Systemic Effect

Worker (oral):	not required
Worker (dermal):	not required
Worker (inhalation):	960 mg/m ³
General Population (oral):	not required
General Population (dermal):	not required
General Population (inhalation):	859.7 mg/m ³

Acute - Local Effect

Worker (oral):	not required
Worker (dermal):	not required
Worker (inhalation):	960 mg/m ³
General Population (oral):	not required
General Population (dermal):	not required
General Population (inhalation):	859.7 mg/m ³

Long-term - Systemic Effects

Worker (oral):	not required
Worker (dermal):	not required
Worker (inhalation):	480 mg/m ³
General Population (oral):	not required
General Population (dermal):	not required
General Population (inhalation):	102.34 mg/m ³

Long-term - Local Effects

Worker (oral):	not required
Worker (dermal):	not required
Worker (inhalation):	480 mg/m ³
General Population (oral):	not required
General Population (dermal):	not required
General Population (inhalation):	102.34 mg/m ³

PNECs

Environment (water):	0.18 mg/l
Environment (air):	not required
Environment (soil):	0.0903 mg/kg soil dw
Environment (sediment):	0.981 mg/kg sediment dw
Environment (STP):	35.6 mg/l

8.2. Exposure controls

Engineering measures

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred.



Explosionproof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Personal protective equipment

General advice

Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Use only in an area equipped with a safety shower. Hold eye wash fountain available.

Hygiene measures

When using, do not eat, drink or smoke Take off all contaminated clothing immediately Wash hands before breaks and immediately after handling the product

Respiratory protection

If aerosols or vapors are present, respiratory protection is required (gas filter A) .

Eye protection

Tightly fitting safety goggles In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face Equipment should conform to EN 166

Skin protection

impervious clothing

Hand protection

Chemicals resistant gloves

Suitable material

Butyl-rubber

Type

Butoject (Company KCL) or comparable article; or refer to glove manufacturer's recommendation

Evaluation

according to EN 374: level 3

Material thickness

approx. 0.7 mm

Break through time

approx. 60 min

Environmental exposure controls

Do not discharge into the drains/surface waters/groundwater

Environmental Precautions

Should not be released into the environment

Section 9 - Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Form	liquid
Color	colourless
Odor	fruity
Odor Threshold	7 - 20 ppm (gas in air)
Molecular Weight	116.16 g/mol
Flash point	24°C
Method	DIN EN ISO 13736
Ignition temperature	415°C
Method	DIN 51794
Decomposition	not determined
Temperature	
Lower explosion limit	1.2 Vol. %
Upper explosion limit	7.5 Vol. %
Flammability (solids)	not applicable
Melting point/range	-78°C
Boiling point/range	126.1°C @ 1013 hPa
Method	DIN 53171
Density	0.881 g/ml @ 20°C
pH	6.2 @ 20°C
Concentration	@ 5 g/l
Viscosity	0.685 mPa*s @ 25°C
Vapor pressure	15 hPa @ 20°C 63 hPa @ 50°C



Vapor density	4.0 (Air=1)
Evaporation Rate	1.0 (n-Butyl acetate = 1)
Water solubility	5.3 g/l @ 20°C
Solubility in other solvents	miscible with, Ethanol, Diethyl ether, soluble in, Acetone, Chloroform
Partition coefficient (n-octanol/water)	2.3 (measured)
Explosive Properties	not applicable based on consideration of the structure
Oxidizing Properties	not applicable based on consideration of the structure
Surface Tension	61.3 mN/m @ 20°C
Concentration	1 g/l
Dissociation constant	not applicable based on consideration of the structure

9.2. Other information The product was not tested for properties not listed on the MSDS.

Section 10 - Stability and Reactivity

10.1. Reactivity

Stable under normal conditions of handling, use and transportation..

10.2. Chemical Stability

No decomposition if used as directed. If heated to thermal decomposition the following decomposition products may occur depending on the conditions:.. carbon oxides.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Avoid any source of ignition. Avoid contact with heat, sparks, open flame, and static discharge.

10.5. Incompatible Materials

Keep away from:., peroxides, oxidizing agents, strong acids, amines

10.6. Hazardous decomposition products

No hazardous decomposition products are known

Section 11 - Toxicological Information

11.1. Information on toxicological effects

n-Butyl acetate

Acute oral toxicity

Species rat, female
Method OECD 423

Acute dermal toxicity

Species rabbit
Method OECD 402

Skin Corrosion/irritation

Species rabbit
Method OECD 404

Serious eye damage/eye irritation

Species rabbit eye
Method OECD 405

Skin Sensitization

Species guinea pig
Method OECD 406

in vitro Mutagenicity

Ames Test: negative - with and without metabolic activation - Method: OECD
471 Cell gene-mutation in Chinese Hamster Cells: negative - with and



in vivo Mutagenicity	without metabolic activation - Method: OECD 476 (Reference substance: n-Butanol) Chromosome aberrations in Chinese Hamster Cells: negative - without metabolic activation - Method: OECD 473 Mammalian Erythrocyte Micronucleus Test in mice: negative - Method: OECD 474 (Reference substance: n-Butanol)
Carcinogenic effects	No data
Reproductive toxicity	No effects on fertility
Routes of exposure	inhalation
Species	rat
Method	OECD 416
	NOAEC: 9640 mg/m ³
Type of study	Two-generation study
Developmental effects	No teratogenic, maternal or developmental effects
Routes of exposure	inhalation
Species	rat
Method	OECD 414
	LOAEC: 7230 mg/m ³
Type of study	Prenatal Developmental Toxicity study
Neurotoxicity	No evidence of neurotoxicity
Routes of exposure	inhalation
Species	rat
Method	EPA OTS 798.6050
	NOAEC: 2410 mg/m ³
Type of study	6-hour inhalation toxicity study

Section 12 - Ecological Information

n-Butyl acetate

Acute fish toxicity	LC50: 18 mg/l (96h)
Species:	Pimephales promelas (Fathead minnow)
Method	OECD 203
Acute daphnia toxicity	EC50: 44 mg/l (48h)
Species:	Daphnia magna
Toxicity to aquatic plants	EC50: 648 mg/l (72h)
Species:	Desmodesmus subspicatus
Biodegradation	Readily biodegradable
	83 % (28d)
Method	OECD 301 D
Other potential hazards	The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product information	Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.
Uncleaned empty packaging	Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.



Section 14 - Transport Information

ADR/RID

UN/ID No.	UN 1123
Proper Shipping Name	Butyl acetates
Hazard Class	3
Classification Code	F1
Packing group	III
Environmentally hazardous	no
Tunnel Restriction Code	(D/E)
Hazard Label(s)	3
Hazard Number	30

ADN

	ADN: Container and Tanker
UN/ID No.	UN 1123
Proper Shipping Name	Butyl acetates
Hazard Class	3
Classification Code	F1
Packing group	III
Environmentally hazardous	no
Hazard Labels	3

ICAO/IATA

UN-No.	UN 1123
Proper Shipping Name	Butyl acetates
Hazard Class	3
Packing group	III
Environmentally hazardous	no
Hazard Labels	3

IMDG

UN/ID No.	UN 1123
Proper Shipping Name	Butyl acetates
Hazard Class	3
Packing group	III
Marine pollutant	no
Hazard Labels	3
EmS Code	F-E, S-D

Section 15 - Regulatory Information

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

Directive 1996/82/EC Annex I, part 2

Water Hazard Class (WGK):

WGK Class	1
WGK Reg. No.	42
WGK Source	Classification according to VwVwS, Annex 1 or 2

International Inventories

Listed on the chemical inventories of the following countries or qualifies for an exemption:
Australia (AICS)



Canada (DSL)
China (IECSC)
Europe (EINECS)
Japan (ENCS)
Japan (ISHL)
Korea (KECI)
New Zealand (NZIoC)
Philippines (PICCS)
United States (TSCA)

15.2 Chemical Safety Assessment

Chemical Safety Assessment is available

Authorization - Reach Regulation, Title VII

This substance is not subject to authorization requirements

Restrictions - Reach Regulation, Tital VIII

This substance is not subject to restriction requirements

Section 16 - Additional Information

Other Information:

- Observe national and local legal requirements
- Changes against the previous version are marked by ***

Training advice

Make sure that employees are aware of the hazards / risks as detailed on this Safety Data Sheet. When wearing a breathing apparatus, the need for appropriate training needs to be considered.

Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on Celanese owned data and public sources deemed valid or acceptable.. The absence of data elements required by ANSI or 1907/2006/EC indicates that no data meeting these requirements is available..

Further information

This information is based on our present state of knowledge. It shall describe our products regarding safety requirements and shall not be construed as a guarantee or statement of condition and/or quality. For more information, other material safety data sheets or technical data sheets please consult the Celanese homepage (www.celanese.com).