



SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Date of issue: 04/04/2014

Version 1.0

SECTION 1. Identification

Product identifier

Product number	BX1735
Product name	<i>n</i> -Butyl Acetate GR ACS
CAS-No.	123-86-4

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

Identified uses	Reagent for analysis
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Details of the supplier of the safety data sheet

Company	EMD Millipore Corporation 290 Concord Road, Billerica, MA 01821, United States of America General Inquiries: +1-978-715-4321 Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)
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Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
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SECTION 2. Hazards identification

GHS Classification

Flammable liquid, Category 3, H226
Specific target organ systemic toxicity - single exposure, Category 3, Central nervous system, H336
For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms



Signal Word
Warning

Hazard Statements

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

Precautionary Statements

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P210 Keep away from heat.

OSHA Hazards

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS and may deviate from the GHS information.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Formula	CH ₃ COO(CH ₂) ₃ CH ₃	C ₆ H ₁₂ O ₂ (Hill)
Molar mass	116.16 g/mol	

Hazardous ingredients

Chemical Name (Concentration)

CAS-No.

n-Butylacetate (>= 90 % - <= 100 %)

123-86-4

Exact percentages are being withheld as a trade secret.

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air. Call in physician.

Skin contact

After skin contact: wash off with plenty of water. Remove contaminated clothing.

Eye contact

After eye contact: rinse out with plenty of water.

Ingestion

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Drowsiness, narcosis, drowsiness

Drying-out effect resulting in rough and chapped skin.

Indication of any immediate medical attention and special treatment needed

Laxative: Sodium sulfate (1 tablespoon/1/4 l water). Activated charcoal

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂), Foam, Dry powder

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Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapors possible in the event of fire.

Advice for firefighters

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly. Clean up affected area.

SECTION 7. Handling and storage

Precautions for safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapors/aerosols. Observe label precautions.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Keep container tightly closed in a dry and well-ventilated place.

Store at room temperature.

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SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Basis	Value	Threshold limits	Remarks
<i>n-Butylacetate 123-86-4</i>			
ACGIH	Time Weighted Average (TWA):	150 ppm	
	Short Term Exposure Limit (STEL):	200 ppm	
NIOSH/GUIDE	Recommended exposure limit (REL):	150 ppm	
		710 mg/m ³	
	Short Term Exposure Limit (STEL):	200 ppm	
		950 mg/m ³	
OSHA_TRANS	PEL:	150 ppm	
		710 mg/m ³	
Z1A	Short Term Exposure Limit (STEL):	200 ppm	
		950 mg/m ³	
	Time Weighted Average (TWA):	150 ppm	
		710 mg/m ³	

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Change contaminated clothing. Application of skin- protective barrier cream recommended.
Wash hands after working with substance.

Eye/face protection

Safety glasses

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:

Flame retardant antistatic protective clothing

Respiratory protection

required when vapors/aerosols are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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SECTION 9. Physical and chemical properties

Physical state	liquid
Color	colorless
Odor	fruity
Odor Threshold	0.4 - 19.7 ppm
pH	neutral
Melting point	-76 °C
Boiling point/boiling range	255 - 261 °F (124 - 127 °C) at 1,013 hPa
Flash point	77 °F (25 °C) Method: c.c.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	1.4 %(V)
Upper explosion limit	7.5 %(V)
Vapor pressure	13 hPa at 68 °F (20 °C)
Relative vapor density	4.0
Density	0.88 g/cm ³ at 68 °F (20 °C)
Relative density	No information available.
Water solubility	7 g/l at 68 °F (20 °C)
Partition coefficient: n-octanol/water	log Pow: 1.81 (23 °C) OECD Test Guideline 107 Bioaccumulation is not expected. (IUCLID)
Autoignition temperature	No information available.
Decomposition temperature	No information available.

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Viscosity, dynamic	0.74 mPa.s at 68 °F (20 °C)
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Ignition temperature	698 °F (370 °C)
Conductivity	< 0.2 µS/cm

SECTION 10. Stability and reactivity

Reactivity

Vapor/air-mixtures are explosive at intense warming.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with:

Alkali metals, alkali hydroxides, Strong oxidizing agents

Conditions to avoid

Heating.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

no information available

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Inhalation, Eye contact, Skin contact

Target Organs

Eyes

Skin

Respiratory system

Central nervous system

Acute oral toxicity

LD50 rat: 13,100 mg/kg (IUCLID)

Symptoms: Risk of aspiration upon vomiting., Aspiration may cause pulmonary edema and pneumonitis.

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Acute inhalation toxicity

LC50 rat: > 21 mg/l; 4 h
OECD Test Guideline 403 (IUCLID)

Acute dermal toxicity

LD50 rabbit: > 14,100 mg/kg
(IUCLID)

Skin irritation

Repeated exposure may cause skin dryness or cracking.

Sensitization

In animal experiments:

Result: negative
(IUCLID)

Patch test:

Result: negative
(IUCLID)

Genotoxicity in vitro

Ames test

Result: negative
(National Toxicology Program)

Specific target organ systemic toxicity - single exposure

Target Organs: Central nervous system
May cause drowsiness or dizziness.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information

After absorption of large quantities:
drowsiness, Drowsiness, narcosis

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Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to fish

LC50 *Leuciscus idus* (Golden orfe): 62 mg/l; 96 h
DIN 38412 part 15 (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC50 *Daphnia magna* (Water flea): 72.8 mg/l; 24 h
DIN 38412 (IUCLID)

Toxicity to algae

IC50 *Desmodesmus subspicatus* (green algae): 674.7 mg/l; 72 h (IUCLID)

Toxicity to bacteria

EC50 *Pseudomonas putida*: 959 mg/l; 18 h (IUCLID)

Persistence and degradability

Biodegradability

98 %; 28 d
OECD Test Guideline 301D
(IUCLID)
Readily biodegradable.

Theoretical oxygen demand (ThOD)

2,207 mg/g
(Lit.)

Ratio BOD/ThBOD

BOD5 7 - 46 %
(Lit.)

Ratio COD/ThBOD

78 %
(Lit.)

Bioaccumulative potential

Partition coefficient: n-octanol/water

log Pow: 1.81 (23 °C)
OECD Test Guideline 107
Bioaccumulation is not expected. (IUCLID)

Mobility in soil

No information available.

Additional ecological information

Discharge into the environment must be avoided.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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SECTION 14. Transport information

Land transport (DOT)

UN number UN 1123
Proper shipping name BUTYL ACETATES
Class 3
Packing group III
Environmentally hazardous --

Air transport (IATA)

UN number UN 1123
Proper shipping name BUTYL ACETATES
Class 3
Packing group III
Environmentally hazardous --
Special precautions for user no

Sea transport (IMDG)

UN number UN 1123
Proper shipping name BUTYL ACETATES
Class 3
Packing group III
Environmentally hazardous --
Special precautions for user yes
EmS F-E S-D

SECTION 15. Regulatory information

United States of America

OSHA Hazards

Flammable Liquid
Target organ effects

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

SARA 311/312 Hazards

Fire Hazard
Chronic Health Hazard

SARA 313

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Ingredients

n-Butylacetate

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Ingredients

n-Butylacetate

DEA List I

Not listed

DEA List II

Not listed

US State Regulations

Massachusetts Right To Know

Ingredients

n-Butylacetate

Pennsylvania Right To Know

Ingredients

n-Butylacetate

New Jersey Right To Know

Ingredients

n-Butylacetate

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Full text of H-Statements referred to under sections 2 and 3.

H226 Flammable liquid and vapor.

H336 May cause drowsiness or dizziness.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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