N. Butyl Acetate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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SECTION 1: Identification

1.1. Identification

Product form	:	Substance
Substance name	:	N. Butyl Acetate
CAS-No.	:	123-86-4
Formula	:	C6H12O2
Synonyms	:	1-acetoxybutane / 1-butyl acetate / acetate of butyl / acetic acid n-butyl ester / acetic acid normal-butyl ester / acetic acid, butyl ester / acetic acid-1,1-dimethylethyl ester

1.2. Recommended use and restrictions on use

Use of the substance/mixture	:	Solvent
Recommended use	:	Industrial use
Restrictions on use	:	None known

1.3. Supplier

Atlanta Branch Office	**Ocoee Branch Office**	**Spartanburg Branch Office**
Whitaker Oil Company	Whitaker Oil Company	Whitaker Chemicals LLC
1557 Marietta Road NW	280 Enterprise Street	405 John Dodd Road
Atlanta, GA 30318	Ocoee, FL 34761	Spartanburg, SC 29303
404-355-8220 (t)	407-656.0088 (t)	864-578-6968 (t)
404-355-2436 (f)	407-877-8335 (f)	864-578-6864 (f)

WEBSITE: www.whitakeroil.com **EMAIL:** SDS@whitakeroil.com

1.4. Emergency telephone number

Emergency number : **CHEMTREC** 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable liquids Category 3	H226	Flammable liquid and vapor
Specific target organ toxicity (single exposure) Category 3	H336	May cause drowsiness or dizziness
Hazardous to the aquatic environment - Acute Hazard Category 3	H402	Harmful to aquatic life

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) :
H226 - Flammable liquid and vapour
H336 - May cause drowsiness or dizziness
H402 - Harmful to aquatic life

Precautionary statements (GHS-US) :
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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/vapors/spray.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P312 - Call a poison center or doctor if you feel unwell
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, state, national and international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	GHS-US classification
N. Butyl Acetate (Main constituent)	(CAS-No.) 123-86-4	100	Flam. Liq. 3, H226 STOT SE 3, H336 Aquatic Acute 3, H402

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

First-aid measures after inhalation : If inhaled: Remove person into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.

First-aid measures after eye contact : Rinse with water. Do not apply neutralizing agents. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call POISON CENTER. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

4.2. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Preferably: alcohol resistant foam. Water spray. Polyvalent foam. BC powder. Carbon dioxide.

Unsuitable extinguishing media : Solid water jet ineffective as extinguishing medium.

5.2. Specific hazards arising from the chemical

Fire hazard : Direct Fire Hazard: Flammable. Gas/vapor flammable with air within explosion limits.

Indirect Fire Hazard: May be ignited by sparks. Gas/vapor spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard : Direct Explosion Hazard: Gas/vapor explosive with air within explosion limits.

Indirect Explosion Hazard: may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".

Reactivity	:	Reacts on exposure to water (moisture) with (some) metals. Decomposes slowly on exposure to water (moisture): release of corrosive/combustible gases/vapors (acetic acid vapors, butanol). Upon combustion: CO and CO2 are formed. Reacts exothermically with (some) acids/bases: (increased) risk of fire/explosion. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire	:	Exposure to fire/heat: consider evacuation.
Firefighting instructions	:	Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.
Protection during firefighting	:	Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	:	Gloves. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. See "Material-Handling" to select protective clothing.
Emergency procedures	:	Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition.Keep upwind. Mark the danger area. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation. In case of reactivity hazard: consider evacuation.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment	:	Contain released product, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapor with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.
Methods for cleaning up	:	Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Comply with the legal requirements. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Work under local exhaust/ventilation. Exhaust gas must be neutralized.
Hygiene measures	:	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Ground/bond container and receiving equipment.
Storage conditions	:	Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Storage area	:	Store in a dry area. Ventilation at floor level. Fireproof storeroom. Provide for a tub to collect spills. Provide the tank with earthing. Under a shelter/in the open. Detached building. May be stored under inert gas. Store at ambient temperature. Keep out of direct sunlight. Meet the legal requirements.
Packaging materials	:	SUITABLE MATERIAL: steel. stainless steel. aluminium. iron. copper. nickel. glass. tin. MATERIAL TO AVOID: plastics. synthetic material.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

N. Butyl Acetate (123-86-4)		
ACGIH	ACGIH TWA (ppm)	50 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: No data available.

GIVE GOOD RESISTANCE: butyl rubber. PVA. tetrafluoroethylene.

GIVE LESS RESISTANCE: chlorinated polyethylene. polyurethane.

GIVE POOR RESISTANCE: natural rubber. neoprene. nitrile rubber. polyethylene. PVC. viton. neoprene/natural rubber

Hand protection:

Gloves. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Eye protection:

Safety glasses. Safety glasses with perforated side shields or protective splash goggles during use.

Skin and body protection:

Protective clothing. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substance handled.

Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Color	:	Colorless
Odor	:	Fruity odor
Odor threshold	:	7 – 20 ppm
pH	:	6.2 (5.3 g/l in water at 20 °C)
Melting point/ Freezing point	:	< -90 °C
Boiling point	:	126 °C (1013 hPa)
Flash point	:	27 °C (1013 hPa)
Relative evaporation rate (butyl acetate=1)	:	1
Relative evaporation rate (ether=1)	:	12
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	1.12 kPa (20 °C)
Vapor pressure at 50 °C	:	5.79 kPa (50 °C)
Relative vapor density at 20 °C	:	4

Relative density	:	0.88 (20 °C)
Relative density of saturated gas/air mixture	:	1.03
Specific gravity / density	:	881 kg/m³
Molecular mass	:	116.16 g/mol
Solubility	:	Poorly soluble in water. Water: 0.53 g/100ml (20 °C)
Log Pow	:	2.3 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Auto-ignition temperature	:	415 °C (1010 hPa)
Decomposition temperature	:	No data available
Viscosity, kinematic	:	0.83 mm²/s (20 °C; OECD 114: Viscosity of Liquids)
Viscosity, dynamic	:	0.73 mPa.s (20 °C)
Explosion limits	:	1.2 - 7.5 vol % 7.5 - 360 g/m³
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

Specific conductivity	:	4300 pS/m
Saturation concentration	:	51 g/m³
VOC content	:	100 %
Other properties	:	Gas/vapour heavier than air at 20°C. Clear. Volatile. Acid reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts on exposure to water (moisture) with (some) metals. Decomposes slowly on exposure to water (moisture): release of corrosive/combustible gases/vapours (acetic acid vapours, butanol). Upon combustion: CO and CO2 are formed. Reacts exothermically with (some) acids/bases: (increased) risk of fire/explosion. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion.

10.2. Chemical stability

Unstable on exposure to moisture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

N. Butyl Acetate (123-86-4)	
LD50 oral rat	10770 mg/kg (Rat; Equivalent or similar to OECD 423; Experimental value; 12789 mg/kg; Rat; Equivalent or similar to OECD 423; Experimental value; 10760 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 17600 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; >14112 mg/kg bodyweight; Rabbit)
ATE US (oral)	10770 mg/kg body weight

Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitization	:	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
Viscosity, kinematic	:	0.83 mm²/s (20 °C; OECD 114: Viscosity of Liquids)
Symptoms/effects after inhalation	:	May cause irritation of the respiratory tract, nasal mucous membranes, central nervous system depression, headache, nausea, dizziness, narcosis, and disturbances of consciousness.
Symptoms/effects after skin contact	:	ON CONTINUOUS EXPOSURE/CONTACT: Red skin. Not irritating. Cracking of the skin.
Symptoms/effects after eye contact	:	ON CONTINUOUS EXPOSURE/CONTACT: Irritation of the eye tissue. Lacrimation. Conjunctivitis.
Symptoms/effects after ingestion	:	May cause central nervous system depression, headache, nausea, dizziness, narcosis, and disturbances of consciousness.
Chronic symptoms	:	No effects known.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Fouling to shoreline. Affects the self-cleaning capacity of surface water. Groundwater pollutant. Harmful to fishes. Harmful to invertebrates (Daphnia). Slightly harmful to algae (EC50 (72h): 100 - 1000 mg/l). Slightly harmful to bacteria.

N. Butyl Acetate (123-86-4)	
LC50 fish 1	18 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	44 mg/l (48 h, Daphnia sp., Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

N. Butyl Acetate (123-86-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.15 - 0.5 g O_2/g substance
Chemical oxygen demand (COD)	2.32 g O_2/g substance
ThOD	2.21 g O_2/g substance
BOD (% of ThOD)	0.46

12.3. Bioaccumulative potential

N. Butyl Acetate (123-86-4)	
BCF fish 1	14 (BCF)
Log Pow	2.3 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

N. Butyl Acetate (123-86-4)	
Surface tension	0.0613 N/m (20 °C; 1 g/l)
Log Koc	log Koc,SRC PCKOCWIN v2.0; 1.268 - 1.844; QSAR
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations	:	Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Incinerate under surveillance with energy recovery. Do not discharge into drains or the environment. May be discharged to wastewater treatment installation.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description	:	UN1123 Butyl acetates, 3, III
UN-No.(DOT)	:	UN1123
Proper Shipping Name (DOT)	:	Butyl acetates
Class (DOT)	:	3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT)	:	III - Minor Danger
Hazard labels (DOT)	:	3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	242
DOT Special Provisions (49 CFR 172.102)	:	B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	220 L
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.
Other information	:	No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Transport document description (IMDG)	:	UN 1123 Butyl acetates, 3, III
UN-No. (IMDG)	:	1123
Proper Shipping Name (IMDG)	:	Butyl acetates
Class (IMDG)	:	3 - Flammable liquids
Packing group (IMDG)	:	III - substances presenting low danger
EmS-No. (1)	:	F-E
EmS-No. (2)	:	S-D

Air transport

Transport document description (IATA)	:	UN 1123 Butyl acetates, 3, III
UN-No. (IATA)	:	1123
Proper Shipping Name (IATA)	:	Butyl acetates
Class (IATA)	:	3 - Flammable Liquids
Packing group (IATA)	:	III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

N. Butyl Acetate (123-86-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids)

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

N. Butyl Acetate (123-86-4)	
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 11/16/2018

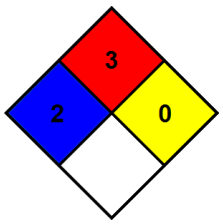
Full text of H-phrases:

H226	Flammable liquid and vapor
H336	May cause drowsiness or dizziness
H402	Harmful to aquatic life

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



SDS US (GHS HazCom 2012)

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