

SDS ReportNo. SHAEC1113756903Date: Sep. 16, 2011This report is to supersede Report No. SHAEC1113756901, Date: Sep.9, 2011

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Weifang Yixing Chemical Technology Co.Ltd Shihua road, No 206, Changyi, Shandong, China

SGS Ref. No.	:	TJ1080907
Sample Name	:	sec-Butyl Acetate
End Uses	:	Paint, ink solvents; synthetic resin solvent; spices, pharmaceutical solvent; thinner
Composition/Ingredient of sample (as per client submission) Job Receiving Date Last Information Date	:	See Section 3 Composition/information on ingredients on the SDS report Aug.25, 2011 Aug.31, 2011
SDS Preparation Period	:	Aug.25~Sep.02, 2011
Service Requested	:	Safety Data Sheet (SDS) for the sample with submitted composition.
Summary	:	As per request, the contents and formats of the SDS are prepared in accordance with European Commission Directives 67/548/EEC, 1999/45/EC, Regulation (EC) No 1907/2006 and Regulation (EC) No 1272/2008, and is provided per attached.

Signed for and on behalf of SGS-CSTC Chemical Laboratory

Lindy Liu

Lindy Liu Lab Manager

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Identificat	ion of the substance/mixture and of the company/undertaking
Product iden	tifier
	sec-Butyl Acetate
Article numb	per: Data not available.
	number: Data not available.
	ntified uses of the substance or mixture and uses advised against
	of the substance / the preparation:
Paint, ink sol	lvents; synthetic resin solvent; spices, pharmaceutical solvent; thinner
Details of the	e supplier of the safety data sheet
Manufacture	
	ng Chemical Technology Co.Ltd
	No 206, Changyi, Shandong, China
	18626; 13685369227
Fax: 0536-72	
	e ntative/ other EU contact point: located in European Union. European Union Member State contact not available.
•	rmation obtainable from: Weifang Yixing Chemical Technology Co.Ltd
Emergency i Bertha Yuan	elephone number:
	e: 13685369227
	@wfyixingchem.com
	umber: TJ1080907; SHAEC1113756903
Classificatio	lentification
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Classification	n of the substance or mixture n according to Regulation (EC) No 1272/2008
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Classification Classification Flam. Liq. 2 Classification F; High R11: High Label element Labelling act The product Hazard pictor Signal word Hazard-detent Hazard-detent Hazard state H225 Highly Precautionant P101 P102 P103 P210 P241 P280 P240	n of the substance or mixture n according to Regulation (EC) No 1272/2008 HS02 flame H225 Highly flammable liquid and vapour. n according to Directive 67/548/EEC or Directive 1999/45/EC hly flammable ly flammable ly flammable. Its cording to Regulation (EC) No 1272/2008 is classified and labelled according to the CLP regulation. grams GHS02 Danger rmining components of labelling: Not applicable. ments flammable liquid and vapour. ry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Keep away from heat/sparks/open flames/hot surfaces No smoking. Use explosion-proof electrical/ventilating/lighting/equipment. Wear protective gloves/protective clothing/eye protection/face protection. Ground/bond container and receiving equipment. +P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse

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Trade name: sec-Butyl Acetate

· Additional information:

Important! This product contains substance that is of restricted use under Annex XVII of Regulation (EC) No. 1907/2006. For details, please refer to Section 15 and 16 of this Safety Data Sheet.

• Other hazards Not applicable.

· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Description:

Mixture: consisting of the following components.

For the wording of the listed risk phrases refer to section 16.

• Dangerous components:		
CAS: 105-46-4	sec-butyl acetate	99,2%
EINECS: 203-300-1	▶ F R11	
Index number: 607-026-00-7	<u>R6</u> 6	
	🚸 Flam. Liq. 2, H225	
CAS: 64-17-5	ethanol	0,178%
EINECS: 200-578-6	👌 F R11	
Index number: 603-002-00-5	🛞 Flam. Liq. 2, H225	
CAS: 123-86-4	n-butyl acetate	0,15%
EINECS: 204-658-1	R10-66-67	
Index number: 607-025-00-1	🚸 Flam. Liq. 3, H226; 🚸 STOT SE 3, H336	
CAS: 141-78-6	ethyl acetate	0,013%
EINECS: 205-500-4	🗙 Xi R36; 🔥 F R11	
Index number: 607-022-00-5	<u>R6</u> 6-67	
	🚸 Flam. Liq. 2, H225; 🚸 Eye Irrit. 2, H319; STOT SE 3, H336	
CAS: 79-20-9	methyl acetate	0,012%
EINECS: 201-185-2	🗙 Xi R36; 👩 F R11	
Index number: 607-021-00-X	<u>R6</u> 6-67	
	🚸 Flam. Liq. 2, H225; 🚸 Eye Irrit. 2, H319; STOT SE 3, H336	
CAS: 78-92-2	butanol	0,005%
EINECS: 201-158-5	🗙 Xi R36/37	
Index number: 603-127-00-5	<u>R1</u> 0-67	
	♦ Flam. Liq. 3, H226; ♦ Eye Irrit. 2, H319; STOT SE 3, H335+H336	
· Non-dangerous component:	·	
Heavy fraction		0,442%

· Remark :

Heavy fraction is a mixture composed of some micro substances, which are non-hazardous according to CLP and Directive 1999/45/EC and would not affect the overall classification of the mixture based on the declaration provided by client.

4 First aid measures

· Description of first aid measures

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth with water.

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Trade name: sec-Butyl Acetate

Never give anything by mouth to an unconscious person. Do not induce vomiting; call for medical help immediately. Call a doctor immediately.

- · Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 Firefighting measures

- · Extinguishing media
- Suitable extinguishing agents: CO₂ sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- **Protective equipment:** Wear fully protective suit.

Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Ensure adequate ventilation.
Keep away from ignition sources.
Avoid contact with eyes.
Avoid contact with skin.
· Environmental precautions:
Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.

• *Methods and material for containment and cleaning up:* Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Do not flush with water or aqueous cleansing agents

• **Reference to other sections** See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

· Handling

- Precautions for safe handling
 Ensure good ventilation/exhaustion at the workplace.
 Keep receptacles tightly sealed.
 Keep away from heat and direct sunlight.
 Open and handle receptacle with care.
 Prevent formation of aerosols.
- *Information about fire and explosion protection: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.*
- · Conditions for safe storage, including any incompatibilities
- *Requirements to be met by storerooms and receptacles: Store in a cool location.*

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Store only in the original receptacle.

- Information about storage in one common storage facility: Store away from foodstuffs.
 Store away from flammable substances.
 Further information about storage conditions:
- Store in cool, dry conditions in well sealed receptacles. Store under lock and key and out of the reach of children.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

105-46-4 sec-butyl ad	cetate	
MAK (Germany)	vgl.Abschn.IIb	
WEL (Great Britain)	Short-term value: 1210 mg/m³, 250 ppm	
	Long-term value: 966 mg/m³, 200 ppm	
VME (France)	950 mg/m³, 200 ppm	
123-86-4 n-butyl ace	tate	
MAK (Germany)	480 mg/m³, 100 ppm	
WEL (Great Britain)	Short-term value: 966 mg/m³, 200 ppm	
	Long-term value: 724 mg/m³, 150 ppm	
VME (France)	Short-term value: 940 mg/m³, 200 ppm	
	Long-term value: 710 mg/m³, 150 ppm	
79-20-9 methyl aceta	te	
AGW (Germany)	610 mg/m ³ , 200 ppm	
	4(II);DFG, Y	
WEL (Great Britain)	Short-term value: 770 mg/m³, 250 ppm	
	Long-term value: 616 mg/m³, 200 ppm	
VME (France)	Short-term value: 760 mg/m³, 250 ppm	
	Long-term value: 610 mg/m³, 200 ppm	
	risque de pénétration percutanée	
141-78-6 ethyl acetai	te	
AGW (Germany)	1500 mg/m³, 400 ppm	
	2(I);DFG, Y	
WEL (Great Britain)	Short-term value: 400 ppm	
	Long-term value: 200 ppm	
VME (France)	1400 mg/m³, 400 ppm	
64-17-5 ethanol		
AGW (Germany)	960 mg/m ³ , 500 ppm	
	2(II);DFG, Y	
	1920 mg/m³, 1000 ppm	
VME (France)	Short-term value: 9500 mg/m³, 5000 ppm	
	Long-term value: 1900 mg/m³, 1000 ppm	
78-92-2 butanol		
MAK (Germany)	vgl.Abschn.IIb	
WEL (Great Britain)	Short-term value: 462 mg/m³, 150 ppm	
	Long-term value: 308 mg/m³, 100 ppm	
VME (France)	300 mg/m ³ , 100 ppm	
DNELs: Data not av	ailable.	
PNECs: Data not ave	ailabla	

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- · Exposure controls
- · Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure
- · Personal protective equipment
- · General protective and hygienic measures: Wash hands before breaks and at the end of work.
- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material:

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

Information on basic physical and	chemical properties	
General Information		
Appearance:		
Form:	Clear liquid	
Colour:	Colourless	
Odour:	Fruity odour	
Odour threshold:	Data not available.	
pH-value:	Data not available.	
Change in condition:		
Melting point/Melting range:	-98,9°C	
Boiling point/Boiling range:	112,3°C	
Freezing point:	-98.9° C	
Flash point:	19°C (closed cup)	
Flammability (solid, gaseous):	Not applicable.	
Auto-ignition temperature:	Data not available.	
Decomposition temperature:	500°C	

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· Self-igniting:	Product is not selfigniting.
• Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits	
Lower:	1,7 Vol %
Upper:	15,0 Vol %
• Oxidizing properties:	Data not available.
· Vapour pressure at 25°C:	32 hPa
· Density:	0,86 g/cm ³
· Relative density at 20°C:	$0,872 \ g/cm^3$
· Vapour density:	4 g/cm^3
· Evaporation rate:	180 (Relative to butyl acetate)
· Solubility in / Miscibility with	
water at 20°C:	6,2 g/l
· Partition coefficient (n-octanol/wa	tter): 1,51 log POW
· Viscosity:	
Dynamic at 21,1°C:	23,33 mPas
Kinematic:	Data not available.
• Other information	The product can react strongly with oxidizer and cause a fire explosion in case of fire. Its steam and air can form explosive mixture.

10 Stability and reactivity

• *Reactivity* No decomposition if used according to specifications.

- · Chemical stability Stable under recommended storage conditions.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid Heat, flames and sparks
- · Incompatible materials: Strong oxidizing agents
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects · Acute toxicity · LD/LC50 values relevant for classification: 105-46-4 sec-butyl acetate LD50 3200 mg/kg (rat) Oral 123-86-4 n-butyl acetate Oral LD50 13100 mg/kg (rat) LD50 >5000 mg/kg (rabbit) Dermal Inhalative LC50/4 h > 21,0 mg/l (rat)79-20-9 methyl acetate Oral LD50 3705 mg/kg (rabbit) 141-78-6 ethyl acetate LD50 5620 mg/kg (rabbit) Oral Inhalative LC50/4 h 1600 mg/l (rat) (Contd. on page 7) EU

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64-17-5 eti	hanol	
	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)
78-92-2 bu	itanol	
Oral	LD50	6480 mg/kg (rat)
· Primary ir	ritant effe	of the second

• Primary irritant effect

• on the skin: Irritating effect possible.

 \cdot on the eye: Irritating effect possible.

· Sensitization: Sensitization possible.

• Toxicokinetics, metabolism and distribution: No further relevant information available.

- Acute effects (acute toxicity, irritation and corrosivity): No further relevant information available.
- Repeated dose toxicity: No further relevant information available.

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):

No further relevant information available.

12 Ecological information

· Toxicity

• Acquatic toxicity: No further relevant information available.

- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.
- Additional ecological information:
- · General notes: Generally not hazardous for water
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging
- *Recommendation: Disposal must be made according to official regulations.*

4 Transport information		
· UN-Number		
· ADR, IMDG, IATA	UN1123	
\cdot UN proper shipping name		
$\cdot ADR$	1123 BUTYL ACETATES	
· IMDG, IATA	BUTYL ACETATES	
		(Contd. on page

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	(Contd. of page
Transport hazard class(es)	
ADR	
Class	3 Flammable liquids.
Label	3
IMDG, IATA	
Class	3 Flammable liquids.
Label	3
Packing group	
ADR, IMDG, IATA	II
Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids.
Danger code (Kemler):	33
EMS Number:	F-E,S-D
Transport in bulk according to Annex	II of
MARPOL73/78 and the IBC Code	Pollution category: Y
	Ship type: 3
Transport/Additional information:	
ADR	
Limited quantities (LQ):	1L
Transport category:	2
Tunnel restriction code:	D/E
UN "Model Regulation":	UN1123, BUTYL ACETATES, 3, II

15 Regulatory information

 \cdot Safety, health and environmental regulations/legislation specific for the substance or mixture \cdot Sara

• Section 3.	55(extremely hazardous substances):
None of th	he ingredients is listed.
· Section 3.	13(Specific toxic chemical listings):
78-92-2 l	butanol
· TSCA(To	xic Substances Act):
105-46-4	sec-butyl acetate
64-17-5	ethanol
123-86-4	n-butyl acetate
141-78-6	ethyl acetate
79-20-9	methyl acetate
78-92-2	butanol
	(Contd. on page 9)

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Propositio	(Contd. of page
Chemical	s known to cause cancer:
None of th	ne ingredients is listed.
Chemical	s known to cause reproductive toxicity for females:
None of th	ne ingredients is listed.
· Chemical	s known to cause reproductive toxicity for males:
None of th	ne ingredients is listed.
· Chemical	s known to cause developmental toxicity:
64-17-5 e	ethanol
· Cancerog	enity categories
· EPA(Envi	ironmental Protection Agency):
None of th	ne ingredients is listed.
· IARC(Int	ernational Agency for Research on Cancer):
None of th	ne ingredients is listed.
• NTP(Nati	ional Toxicology Program):
None of th	ne ingredients is listed.
· TLV(Thre	eshold Limit Value established by ACGIH):
64-17-5 e	ethanol A
· MAK(Ger	man Maximum Workplace Concentration)
64-17-5 e	
· NIOSH-C	Ca(National Institute for Occupational Safety and Health):
	ne ingredients is listed.
· OSHA-Ca	a(Occupational Safety & Health Administration):
	ne ingredients is listed.
· National 1	regulations:
	ard class: Generally not hazardous for water.
	ulations, limitations and prohibitive regulations
· Candidate	e List of Substances of very high concern (SVHC) according to ECHA (20/06/2011)
None of th	ne ingredients is listed.
· REACH F	Regulation Annex XVII Restriction List (21/5/2011)
	sec-butyl acetate
123-86-4	n-butyl acetate
79-20-9	methyl acetate
	ethyl acetate
64-17-5	
78-92-2	butanol
	Regulation Annex XIV Authorization List (18/2/2011)
•	ne ingredients is listed.
· Chemical	safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

· Relevant phrases

- H225 Highly flammable liquid and vapour.H226 Flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

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H336	(Contd. of page 9) May cause drowsiness or dizziness.
H330 R10	May cause arowsiness or aizziness. Flammable.
R10 R11	Highly flammable.
R36	Irritating to eyes.
	7 Irritating to eyes and respiratory system.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.
	nmended restriction of use
	'H Annex XVII Restricted -3
	l substances or mixtures, which are regarded as dangerous according to the definitions in Council
	ive 67/548/EEC and Directive 1999/45/EC.
	<i>ityl acetate (CAS No.105-46-4)</i>
	il acetate (CAS No.123-86-4)
	l acetate (CAS No.79-20-9)
	acetate (CAS No.141-78-6)
	bl (CAS No.64-17-5)
	-2-ol (CAS No.78-92-2)
	ll not be used in: mental articles, intended to produce light or colour effects by means of different phases, for example in
	nental lamps and ashtrays, s and jokes,
-	es for one or more participants, or any article intended to be used as such, even with ornamental
aspect	
	icles not complying with paragraph 1 shall not be placed on the market. Ill not be placed on the market if they contain a colouring agent unless required for fiscal reasons or
	ne or both and if they:
	ent an aspiration hazard and are labelled with R65 or H304, and,
	be used as fuel in decorative lamps, and,
	packaged in containers of a capacity of 15 litres or less.
	thout prejudice to the implementation of other Community provisions relating to the classification,
	ging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market
	ne packaging of substances and mixtures covered by paragraph 3, where intended for use in lamps, is divisibly logibly and indelibly as follows:
	d visibly, legibly and indelibly as follows:
	alamps filled with this liquid out of the reach of children".
	ontents and format of this MSDS/SDS are in accordance with REGULATION (EC) No 1272/2008, /LATION (EC) No 1907/2006, Regulation (EU) No 453/2010 and EU Commission Directive 1999/45/
EC, 07	7/548/EEC.
וסצות	
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