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

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

Plastic - adhesive

Vollmer Superzement S30 Article number: 46016

Date printed 17.05.2017, Revision 17.05.2017

Product identifier

1.2.1 Relevant uses

1.2.2 Uses advised against

1.1

1.2

	-	None known.
1.3	Details of the supplier of the s	afety data sheet
	Company	Viessmann Modelltechnik GmbH Bahnhofstraße 2a 35116 Hatzfeld-Reddighausen / GERMANY Phone +49(0)6452 93400 Fax +49(0)6452 934019 Homepage www.viessmann-modell.de E-mail info@viessmann-modell.com
	Address enquiries to	
	Technical information	info@viessmann-modell.com
	Safety Data Sheet	sdb@chemiebuero.de
1.4	Emergency telephone number	
	Advisory body	+49 (0) 6131-19240 (24h)
SEC	TION 2: Hazards identification	
2.1	Classification of the substanc	e or mixture
		Flam. Lig. 3: H226 Flammable liquid and vapour.

STOT SE 3: H336 May cause drowsiness or dizziness.

2.2 Label elements

Hazard pictograms	
Signal word	WARNING
Contains:	n-Butyl acetate
Hazard statements	H226 Flammable liquid and vapour. H336 May cause drowsiness or dizziness.
Precautionary statements	 P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P271 Use only outdoors or in a well-ventilated area. P261 Avoid breathing vapours. P280 Wear protective gloves / eye protection. P312 Call a POISON CENTER / doctor if you feel unwell. P405 Store locked up. P501 Dispose of contents/container in accordance with local/national regulation.
Special labelling	EUH066 Repeated exposure may cause skin dryness or cracking.



Version 01

Version 01

2.3 Other hazards

Physico-chemical hazards	Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.
Environmental hazards	Does not contain any PBT or vPvB substances.
Other hazards	Further hazards were not determined with the current level of knowledge.
SECTION 3: Composition / Information on ingredients	

Product-type:

The product is a mixture.

Range [%]	Substance
70 - 90	n-Butyl acetate
	CAS: 123-86-4, EINECS/ELINCS: 204-658-1, EU-INDEX: 607-025-00-1, Reg-No.: 01-2119485493-29-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - STOT SE 3: H336

Comment on component parts	Comment	on	com	ponent	parts
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Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%. For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1	Description of first aid measures General information	Take off contaminated clothing and wash before reuse.
	Inhalation	Remove person to fresh air and keep comfortable for breathing. In the event of symptoms seek medical treatment.
	Skin contact	When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.
	Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
	Ingestion	Consult a doctor immediately. Do not induce vomiting. Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects	
Vertigo	
Drowsiness	
Headache	

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media Suitable extinguishing media Extinguishing media that must not be used Foam, dry powder, water spray jet, carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

Date	printed 17.05.2017, Revision 17.05.2017		Version 01	Page 3 / 10
5.3	Advice for firefighters			
		Use self-contained breathing apparatus. Do not inhale explosion and/or combustion gases.		
		Cool containers at risk with water spray jet. Fire residues and contaminated firefighting water must be of the local regulations.	disposed of in accorda	ance within
SEC	TION 6: Accidental release measur	res		
6.1	Personal precautions, protective	equipment and emergency procedures		
		Keep away from all sources of ignition. Ensure adequate ventilation. High risk of slipping due to leakage/spillage of product. Use personal protective equipment (protective gloves, safe	ety glasses, protective	clothing).
6.2	Environmental precautions			
		Prevent spread over a wide area (e.g. by containment or of Do not discharge into the drains/surface waters/groundwat		
6.3	Methods and material for contain	ment and cleaning up		
		Take up with absorbent material (e.g. sand). Dispose of absorbed material in accordance within the reg	ulations.	
6.4	Reference to other sections			
		See SECTION 8+13		
SEC	TION 7: Handling and storage			
7.1	Precautions for safe handling			
		Use only in well-ventilated areas.		
		Keep away from all sources of ignition - Refrain from smok Vapours can form an explosive mixture with air. Ignitable mixtures can be formed in the empty container. Use explosion-proofed equipment/fittings and non-sparkling	-	
		Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke when using this product. After worktime and before work breaks the affected skin ar Use barrier skin cream. Contaminated work clothing should not be allowed out of the	-	ly cleaned.
7.2	Conditions for safe storage, inclu	ding any incompatibilities		
		Keep only in original container. Prevent penetration into the ground.		
		Do not store together with oxidizing agents. Do not store together with food and animal food/diet.		
		Keep container tightly closed. Keep container in a well-ventilated place. Protect from heat/overheating and from sun.		
7.3	Specific end use(s)			
		See product use, SECTION 1.2		

Version 01

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
n-Butyl acetate
CAS: 123-86-4, EINECS/ELINCS: 204-658-1, EU-INDEX: 607-025-00-1, Reg-No.: 01-2119485493-29-XXXX
Long-term exposure: 150 ppm, 724 mg/m ³
Short-term exposure (15-minute): 200 ppm, 966 mg/m ³

DNEL

	Substance
	n-Butyl acetate, CAS: 123-86-4
	Industrial, inhalative, Long-term - local effects: 480 mg/m ³ .
	Industrial, inhalative, Long-term - systemic effects: 480 mg/m ³ .
	Industrial, inhalative, Acute - systemic effects: 960 mg/m ³ .
	Industrial, inhalative, Acute - local effects: 960 mg/m ³ .
	general population, inhalative, Long-term - local effects: 102,34 mg/m ³ .
	general population, inhalative, Long-term - systemic effects: 102,34 mg/m ³ .
	general population, inhalative, Acute - local effects: 859,7 mg/m ³ .
	general population, inhalative, Acute - systemic effects: 859,7 mg/m ³ .
PNEC	
	Substance
	n-Butyl acetate, CAS: 123-86-4

n-Butyl acetate, CAS: 123-86-4
soil, 0,0903 mg/kg.
sediment (seaater), 0,0981 mg/kg.
sediment (freshwater), 0,981 mg/kg.
sewage treatment plants (STP), 35,6 mg/l.
seawater, 0,018 mg/l.
freshwater, 0,18 mg/l.

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	safety glasses (EN 166:2001)
Hand protection	0,4 mm Butyl rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Protective clothing.
Other	Avoid contact with eyes and skin. Do not inhale vapours. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	Respiratory protection mask in the event of high concentrations. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
Thermal hazards	none
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1	Information on basic physical and	I chemical properties
	Form	liquid
	Color	colourless
	Odor	characteristic
	Odour threshold	not required
	pH-value	not applicable
	pH-value [1%]	not applicable
	Boiling point [°C]	126
	Flash point [°C]	27
	Flammability (solid, gas) [°C]	not determined
	Lower explosion limit	1,2 Vol%
	Upper explosion limit	7,5 Vol%
	Oxidising properties	no
	Vapour pressure/gas pressure [kPa]	~ 1,5 (20°C)
	Density [g/ml]	~ 0,9
	Bulk density [kg/m³]	not applicable
	Solubility in water	partially soluble
	Partition coefficient [n-octanol/water]	No information available.
	Viscosity	not applicable
	Relative vapour density determined in air	No information available.
	Evaporation speed	No information available.
	Melting point [°C]	No information available.
	Autoignition temperature [°C]	> 300
	Decomposition temperature [°C]	No information available.
9.2	Other information	

none

SECTION 10: Stability and reactivity

10.1 Reactivity

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

10.4 Conditions to avoid

Heating

10.5 Incompatible materials

Oxidizing agent

10.6 Hazardous decomposition products

No hazardous decomposition products known.



Version 01

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product	
ATE-mix, inhalativ (vapour), > 20 mg/l 4h.	
ATE-mix, dermal, > 2000 mg/kg.	
ATE-mix, oral, > 2000 mg/kg.	

Substance	
n-Butyl acetate, CAS: 123-86-4	
.D50, dermal, Rabbit: >14112 mg/kg (OECD 402).	
.D50, oral, Rat: 10760 mg/kg (OECD 423).	
.C50, inhalative, Rat: 23.4 mg/l (4h) (OECD 403).	

Serious eye damage/irritation	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Skin corrosion/irritation	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Respiratory or skin sensitisation	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Specific target organ toxicity — single exposure	Vapours may cause drowsiness and dizziness. Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Calculation method
Specific target organ toxicity — repeated exposure	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Mutagenicity	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Reproduction toxicity	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Carcinogenicity	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Aspiration hazard	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled.
General remarks	
	none

SECTION 12: Ecological information

12.1 Toxicity

Substance	
n-Butyl acetate, CAS: 123-86-4	
LC50, (96h), Pimephales promelas: 18 mg/l (OECD 203).	
EC50, (72h), Desmodesmus subspicatus: 647.7 mg/l.	
EC50, (48h), Daphnia magna: 44 mg/l.	
IC50, Bacteria: 356 mg/l (40 h).	
NOEC, Desmodesmus subspicatus: 200 mg/l.	



Version 01

Page 6 / 10

Viessmann

Version 01

Date printed 17.05.2017, Revision 17.05.2017

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

	Product	
		Disposal in an incineration plant in accordance with the regulations of the local authorities. Coordinate disposal with the authorities if necessary.
	Waste no. (recommended)	080409*
	Contaminated packaging	
		Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product.
	Waste no. (recommended)	150110*
SEC	TION 14: Transport information	
14.1	UN number	
	Transport by land according to ADR/RID	1123
	Inland navigation (ADN)	1123
	Marine transport in accordance with IMDG	1123
	Air transport in accordance with IATA	1123

Version 01

14.2	UN proper shipping name	
	Transport by land according to ADR/RID	Butyl acetates, solution
	- Classification Code	F1
	- Label	
	- ADR LQ	51
	- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 3 (D/E)
	Inland navigation (ADN)	Butyl acetates, solution
	- Classification Code	F1
	- Label	
	Marine transport in accordance with IMDG	Butyl acetates, solution
	- EMS	F-E, S-D
	- Label	•
	- IMDG LQ	51
	Air transport in accordance with IATA - Label	Butyl acetates, solution
14.3	Transport hazard class(es)	
	Transport by land according to ADR/RID	3
	Inland navigation (ADN)	3
	Marine transport in accordance with IMDG	3
	Air transport in accordance with IATA	3
14.4	Packing group	
	Transport by land according to ADR/RID	III
	Inland navigation (ADN)	ш
	Marine transport in accordance with IMDG	III

Air transport in accordance with IATA III

Version 01

Date printed 17.05.2017, Revision 17.05.2017

14.5	Environmental hazard	st
1410		20

Transport by land according to
ADR/RIDnoInland navigation (ADN)no

Marine transport in accordance with no IMDG

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

5.1 Safety, health and environmental	regulations/legislation specific for the substance or mixture
EEC-REGULATIONS	1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	85 %
5.2 Chemical safety assessment	
	not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

> H336 May cause drowsiness or dizziness. H226 Flammable liquid and vapour.



Version 01

Date printed 17.05.2017, Revision 17.05.2017

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

ATE = acute toxicity estimate

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging

DMEL = Derived Minimum Effect Level

DNEL = Derived No Effect Level

EC50 = Median effective concentration

ECB = European Chemicals Bureau

EEC = European Economic Community

EINECS = European Inventory of Existing Commercial Chemical Substances

ELINCS = European List of Notified Chemical Substances

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC-Code = International Code for the Construction and Equipment of Ships carrying

Dangerous Chemicals in Bulk

IC50 = Inhibition concentration, 50% IMDG = International Maritime Code for Dangerous Goods

IUCLID = International Uniform ChemicaL Information Database

LC50 = Lethal concentration, 50%

- LD50 = Median lethal dose
- LC0 = lethal concentration, 0%

LOAEL = lowest-observed-adverse-effect level

MARPOL = International Convention for the Prevention of Marine Pollution from Ships

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

PBT = Persistent, Bioaccumulative and Toxic substance

PNEC = Predicted No-Effect Concentration

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

STP = Sewage Treatment Plant

none

TLV®/TWA = Threshold limit value – time-weighted average

TLV®STEL = Threshold limit value - short-time exposure limit

VOC = Volatile Organic Compounds vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Flam. Liq. 3: H226 Flammable liquid and vapour. (On basis of test data) STOT SE 3: H336 May cause drowsiness or dizziness. (Calculation method)

Modified position



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